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Declining Talent in Computer Related Careers

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ABSTRACT

The United States has been experiencing an information Technology talent shortage for several years. This has caused employers to be creative in finding talented computer related talent. Many colleges have trending declines in enrollment in computer related majors. The Bureau of Labor Statistics and Department of Education Statistics reveal some truths about the decline in computer related talent. Additional research has discovered possible answers to the problem of computer talent declines.

Introduction

Interest in Computer Information Systems (CIS) and Computer Science (CS) degrees is declining and it appears the trend began for 2004, according to (Pollacia & Lomerson, 2004). Research to identify the causes of the decline is far from complete. It is believed by some that the lack of interest in CIS and CS college majors begins in high school. According to the Bureau of Labor Statistics Computer related careers expect to grow 13.1% from 2014 to 2024. This growth is the 4th largest predicted career growth in the U.S. Only healthcare occupations are expecting higher growth. Yet, the growth in college students in CIS and CS major is not keeping up with the anticipated growth and the current need for computer professionals (2004). In the early 2000s many companies met the shortage of computer professionals by recruiting from other countries.

The choice of college degree major is important to the student because it becomes the foundation for their careers. Choosing the wrong major can be expensive to the student and it can retard his or her career. The choice of college major affects the schools and colleges for universities because enrollment affects course offering and faculty staffing. It also affects internships and placement. The choice of degree major affects businesses because the availability of talent in industry disciplines affects salaries and recruiting. Competitive edge for the United States may also be a concern for industry leaders.

Problem Statement

The continuing decrease in college computer majors, expected baby-boomer retirements and growth in technology is predicted to create a shortage of computer professionals in the U.S. While the shortage of qualified Information Technology (IT) graduates has not become a significant problem yet, it could create a problem in the near future.

Research Method

The Department of Education and the Bureau of Labor Statistics have conducted considerable data collection regarding undergraduate, graduate education and college graduate employment. Data acquired from the Department of Education and the Bureau of Labor Statistics was used to avoid redundant work and the accuracy of the data could be assumed.

Literature Review

McInerney, DiDonato, Giagnacova, & O'Donnell studied why students choose Information Technology (IT) related majors as undergraduates (2006). McInerney, et al, wanted to understand student perceptions about IT majors and careers as opposed to other careers and majors. Life experience before college was a factor in students' choices. If students did well in certain subjects in high school they tended to develop an interest in that field and it may affect their choice for a college major. A major factor resulting from McInernery's research on career decisions included the quality of teaching, courses which offered at an appropriate level of difficulty. "K–12 students

have a negative perception of computing; and reports say the innovation rate in the field has decreased", (Violina 2009).

Interest in Computer jobs, in America, has been declining since 1998 but women's interest in computer careers has declined at a rate of 80%, according to the Higher Education Research Institute. A study of high schools students found that, for women, a perceived barrier to choosing IT for a career was balancing work and home-life (McInerney, et. al, 2006).

Employers are dealing with a talent shortage in Information Technology (IT). Kastrul (2006) thinks the talent short is due to the belief that IT is no longer a viable career path. In colleges of business or computer science, one popular belief is that student preferences are career driven—that is, that university enrollments thrive or decline in response to perceived hiring opportunities in the industry upon graduation (Kuechler, McLeod & Simkin, 2009). Some experts suggest that students may be concerned about self-image regarding their selection of a college major. Another possible factor affecting choice of major is the student's perception of job satisfaction. A fourth influence on selection of a college major is difficulty for the required courses or the perceived rigor for the program. For example students may decide not to choose a computer related degree because they believe it requires too much mathematics.

Friends, family and high school teachers can also affect the selection of a college major. It is not unusual for a high school student to choose a career path because a parent is employed in that career. According to Smith (2003) IT employer expectations for IT professionals are increasing, regarding skills and commitment to the company. These increased expectations may be a barrier to choosing IT as a career.

Ali & Shubra (2010) agree that there has been a sharp decline in computer related college majors. However, in the years since 2008 there have been signs of a slowing in the decline. The enrollment issue is being addressed by reaching high school students, secondary education technology teachers, guidance counselors and by building partnerships with other institutions.

Analysis

Information Systems and Computer Science majors are often grouped in studies of careers and college enrollment. According to Vego (2008) newly declared enrollment in computer science majors declined by 70% from 2000 to 2005. Vego's study reported that sharp declines in computer degree enrollment also happened between 1980 and 1986. So, periodic declines are not unusual.

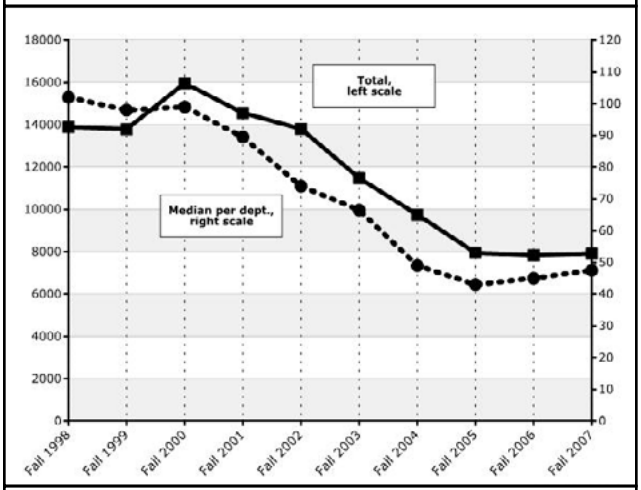
A Department of Education study series published in 2013 tracked college graduates and their careers for 10 years after graduation. The career results showed a decline in the number of graduates holding a bachelor's degree in the Computer and Information Systems field. The percent the U.S. population over 50 years of age with a degree in Computers was 8.9%. Americans ages 30 to 49 years old with a Computer or Information Systems degree was 13.8% and ages 25 to 29 years old was 5.3%. The total percentage of college graduates with a degree in Computer or Information Systems is only 2.9. Top degrees earned were Business/Management 20.4%, Education 13.7% and Social Sciences and History at 9.7%. In 2013 in the U.S., adults with a computer related degree ranked 12th out of 17 degree fields.

Some suggestions for improving enrollment in computer majors are:

- Offer multidisciplinary and cross disciplinary programs
- Fix the computer science image
- Move toward a Bachelor of Arts degree
- Increase women's enrollment in CS
- Train high school computer science teachers
- Make CS courses fun (Ali & Shubra, 2010).

The U. S. Department of Education, National Center for Education Statistics (2012) reported Computer Informa-

Figure 1
Newly Declared CS Majors



Source: CRA Taulbee Survey

Figure 2
Undergraduate College Characteristics:

Percentage distribution of 2007–08 bachelor's degree recipients and enrollment characteristics: 2012

Bachelor's degree major	%
Computer and information sciences	2.9
Engineering and engineering technology	6.0
Biological and physical sciences, science technology, mathematics, and agricultural sciences	7.3
General studies and other4	3.0
Social sciences	15.2
Humanities	11.7
Health care fields	7.6
Business	23.3
Education	8.2
Other applied	14.9

Cataldi, E. F., Siegel, P., Shepherd, B. & Cooney, J. (2014)

tion Systems and Information Science majors make up only

Ali & Shubra's suggestions do not specify a plan to execute. But, the suggestions can be summarized by simply saying, increase the supply of students in computer majors by establishing relationships with high schools, community colleges and undeclared majors. Faculty could participate in high school career days, sponsor computer technology competitions for high school students, guest lecture at community colleges and build transfer credit courses at the high school and community college level.

Conclusion

High school and college age students have many misconceptions about information technology careers and these misconceptions are likely based on past trends. In the late 1990's and early 2000's outsourcing for IT services was a trend. This was followed by a trend of insourcing of IT talent. Both trends were probably the result of declining IT talent developed by colleges. Yet, the talent shortage perpetuated the misconception that IT was not a good career choice (Kastrul, 2006). The 2007 Tech Appeal Index found that "there has been an increase in technology professionals' fear that jobs will be outsourced overseas.

College students have dropped out of technology related courses due to lack of preparation in high school. The U.S. GAO found that "out of the several hundred students who left technology fields, 40 percent of those left the program due to reported problems related to high school science preparation." (Warlick, 2009). The GAO study listed the top three challenges for high schools offering computer related courses were; rapidly changing technology, lack of staff support or interest, and lack of curriculum resources.

Perceptions among young professional regarding the future of IT jobs is the technology decline of the early part of the 2000's and concern for another dot-com collapse. It is also difficult for IT graduates to break into IT careers because the IT talent shortage is forcing employers to look for experienced people before they hire entry-level graduates (Kastrul, 2006). The stereotype that IT professionals are "geeks" also makes the IT career choice unattractive to young people. The IT profession is identified as male-dominated, overworked, and underappreciated.

IT salaries do not seem to agree with the indicators that show a shortage of IT talent. Since 2001, IT salaries have not increased significantly more than other career disciplines. Supply and demand would state that if there is a talent shortage compensation for IT people would increase to attract more talent. However, studies have shown the talent gap is being filled by insourcing IT talent from other countries such as the Middle East, India and China. Most recently, businesses are discovering that insourcing talent brings its own challenges.

Recognizing the talent shortage and the decline in computer-related college majors is the beginning for developing solutions. Colleges should develop relationships with local high schools to help over-come teacher and technology challenges. Colleges could also build partnerships with businesses and offer education opportunities for employees. The future for IT in business and colleges has to be met together.

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Advanced Placement and Dual Enrollment as Related to College Readiness and Retention at a Tennessee University

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ABSTRACT

The purpose of this study was to determine if there was a significant relationship between students who entered a Tennessee university for the first time in the fall of 2014 who had earned either Advanced Placement (AP) or dual enrollment credit and their college readiness and 1-year college retention. College readiness was defined by students' American College Testing (ACT) sub scores in English, reading, and mathematics. The Tennessee Board of Regents (TBR) regulates the minimum sub score for each sub section that a student must obtain to be college ready. College retention was defined by students who enrolled at the university in the fall of 2014 and reenrolled in the fall of 2015 at the same university.

The independent variables for this study were AP credits received in AP English Language and Composition, AP English Literature and Composition, AP Statistics, AP Calculus AB, AP Calculus BC, and dual enrollment credit received in any course. The dependent variables for this study were college readiness as defined by TBR and fall-to-fall retention. A series of chi-square tests of independence was performed to examine the differences in college readiness and fall-to-fall retention between students who had earned AP or dual enrollment credit and those students who had not.

The quantitative findings revealed that there is a significant relationship between students who enroll in their first college year with AP English or math credit or dual enrollment credit and first year retention rates when compared to students who do not reenroll with AP English or math credit or dual enrollment credit. The results indicated there was no difference in students who enrolled with AP English or math credit and students who enrolled with dual enrollment credit regarding their fall-to-fall retention rates. AP English credit increased the likelihood that a student was college ready in both English and reading based on TBR determinations of college readiness. Credit in an AP mathematics course also increased the likelihood that a student was college ready in math based on TBR determinations of college readiness.

Introduction

Graduating from high school ready for college is now more important than ever. Fewer than 60% of Tennessee high school graduates enroll in a postsecondary institution the fall following their high school graduation because they do not feel prepared (Karp, 2013). The majority of postsecondary institutions determine College readiness by American College Test (ACT) scores. The ACT is a standardized test consisting of 215 multiple-choice questions that is limited to 2 hours and 55 minutes. The test is broken down into four sub sections that cover math, English, reading, and science. The test has a composite score ranging from 0 to 36 and each sub section is scored within the same range (ACT, 2016). Tennessee Board of Regents (TBR) schools have set a minimum ACT score for each sub section that a student must reach to be college ready: writing 18, reading 19, and mathematics 19; science requires no minimum sub score (Tennessee Board of Regents (TBR), 2014). In the fall of 2014, 33% of TBR university freshmen who enrolled did not reach all three of these benchmarks (Wilson, 2016).

According to the National Center for Educational Statistics (NCES), first year college retention rates are among

one of the strongest indicators for a student's probability of finishing the postsecondary degree that they have set out to obtain (Kena et al., 2016). The average for college retention at a 4-year institution varies with their selectivity of students. For first time, enrolling freshman in the fall of 2014 at highly selective schools, the retention rate was 93%; at schools labeled as open selection, the retention rate was 56%. The national average for all schools was 73.1% (ACT, 2015b). The likelihood of obtaining a degree decreases for students who do not reenroll for a second year at their postsecondary institution, even for those who were college ready when they entered.

Advanced Placement (AP) courses have shown to positively affect students attending a 4-year college or university regarding college readiness, an increase in second year college retention, and graduation rates (Shaw, Marini, & Mattern, 2013). The College Board oversees the AP program. AP courses have been offered in high schools across the United States since 1955, giving students the opportunity to take rigorous college level courses while still in high school. In 2013, 1.1 million AP exams were administered to 607,505 students (The College Board, 2014). The exam is scored on a 5-point scale with 5 being the highest score awarded. Most postsecondary institutions grant college credit for a score of three or higher (Dodd, Fitzpartrick, De Ayala, & Jennings, 2002).

Dual enrollment courses are another way for high school students to obtain college credit for many courses including the core courses required for many college majors (Ganzert, 2014). Students take college level courses while still in high school and receive both high school and college credit (Karp, 2013). Dual enrollment students have been found to be more emotionally and behaviorally prepared for the transition from high school to college compared to non dual enrollment students (Karp, 2015). Students who take dual enrollment courses have shown to be more likely to earn their college degree, are two times more likely to reenroll for their second year, and are 12% more likely to enroll in a postsecondary school within 7 months of their high school graduation (Adelman, 2006; O'Brien & Nelson, 2004; Struhl & Vargas, 2012). This study was designed to determine if certain AP courses positively affect college readiness and if certain AP or dual enrollment courses positively affect college retention.

Purpose

The purpose of this study was to determine if there was a significant relationship between students who entered a Tennessee university for the first time in the fall of 2014 who had earned either Advanced Placement (AP) or dual enrollment credit and their college readiness and 1-year college retention. College readiness was defined by students' American College Testing (ACT) sub scores in English, reading, and mathematics.

Most studies regarding AP and dual enrollment students were not conducted in southern states; and therefore, confirm the need for this research. This study was conducted at a 4-year university in Tennessee that is governed by the TBR. The university has a lower retention rate (69%) for first time freshmen than the national average (73%) and more than half of the incoming freshmen are deemed not college ready in math (Dula, 2015; NCES, 2016). This study focused on the effects that AP and dual enrollment courses had on college readiness as defined by the TBR and fall-to-fall retention. A quantitative, quasi experimental, comparative design was used to analyze secondary data to determine if AP courses had an effect on college readiness and if AP and dual enrollment courses had an effect on fall-to-fall retention in a student's first year.

Research Questions

Seven research questions guided the study.

RQ1: Is there a significant difference in the fall-to-fall retention rates between students who did not receive AP credit in a mathematics class (AP Statistics, AP Calculus AB, or AP Calculus BC) and students who did receive AP credit in a mathematics class?

RQ2: Is there a significant difference in the fall-to-fall retention rates between students who did not receive AP credit in an English class (AP English Language and Composition or AP English Literature and Composition) and students who did receive AP credit in an English class?

RQ3: Is there a significant difference in the fall-to-fall retention rates between students who did not receive a dual enrollment credit in any course and students who did enter with a dual enrollment credit?

RQ4: Is there a significant difference in the fall-to-fall retention rates between students who received dual enrollment credit and students who received AP credit in English or mathematics?

RQ5: Is there a significant difference in college readiness in English between students who did not receive AP English credit and those who did receive AP English credit?

RQ6: Is there a significant difference in college readiness in reading between students who did not receive AP English credit and those who did receive AP English credit?

RQ7: Is there a significant difference in college readiness in math between students who did not receive AP mathematics credit and those who did receive AP mathematics credit?

Population

Participants in this study included incoming freshmen who enrolled at the university in the fall of 2014. Of those, 80% were in-state residents and 20% were out-of-state residents. The average high school GPA for the incoming freshman class in the fall of 2014 was 3.4; their average ACT composite score was 22.3. Participants included 43% males and 57% females. The class demographics included 83% White, 6% Black or African American, 2% Hispanic/Latino, 3% nonresident alien, 2% two or more races, 1% Asian, and 1% race/ethnicity unknown. For the incoming freshman class in the fall of 2014, each member of the population was grouped into one or more of four categories (ETSU, 2015):

1. The students who entered with an AP mathematics credit,
2. students who entered with an AP English credit,
3. students who entered with a dual enrollment credit, and
4. students who entered with neither AP or dual enrollment credit.

The population was also categorized into two other distinct groups: those who reenrolled and attended a Tennessee university in the fall of 2015 and those who did not.

Instrumentation

The instrument used to measure college readings in this study was the ACT in math, English, and reading. Jaschik (2011) reported that ACT math and English sub scores were highly predictive of college readiness while science and reading sub scores were not. This study excluded science sub scores because ACT science sub scores are not linked to the college readiness standards used by TBR institutions, however ACT reading sub scores were used because of their use in the determination of students' college readiness. Each sub score has a range of 0 to 36. TBR schools have set minimum sub scores for math, English, and reading that a student must obtain to be college ready. Those sub scores are 18 for writing, 19 for reading, and 19 for mathematics (TBR, 2014). Standardized test scores like the ACT have been found to be more reliable than a student's high school GPA when trying to predict college readiness (Allen et al., 2008). Because high school GPAs have been on a steady rise since 1990, it has been argued that with their steady increase they have been rendered useless (Woodruff & Ziomek, 2004).

Data Collection

The Office of Institutional Research Applications provided data for analysis. The data used in this study were existing data in the university's student information system:

The students who entered as first time freshmen in the fall of 2014 with an AP credit in AP Statistics, AP Calculus AB, AP Calculus BC, AP Literature and Composition, and AP Language and Composition;

1. students who entered with a dual enrollment credit in any course;
2. students who obtained the following ACT sub score thresholds: reading greater than 18, English greater than 17, and math greater than 18; and
3. students who reenrolled in the Fall of 2015.

The data were provided by the university and retrieved from the Office of Institutional Research Applications. A director of Institutional Research Applications removed all personal identifiers from the data before the researcher obtained the data to insure confidentiality for all participants. The director made the data confidential by assigning a randomly generated identification code that bore no relation to the participant in any way. No other data about the participants were collected from the university's Office of Institutional Research Applications.

Data Analysis

Each research question was analyzed using a chi-square test of independence. The chi-square test was an appropriate statistical measure because all data are nominal. More specifically two-way contingency tables were used for the seven research questions. All data were analyzed at the 0.05 level of significance. The independent variables

for this study were AP credits received in AP English Language and Composition, AP English Literature and Composition, AP Statistics, AP Calculus AB, AP Calculus BC, and dual enrollment credit received in any course. The dependent variables for this study were college readiness as defined by TBR and fall-to-fall retention.

Discussion and Conclusions

Research questions 1, 2, and 3 focused on fall-to-fall retention rates for students who enrolled for the first time in the fall of 2014 with AP mathematics, AP English, or dual enrollment credit. The population for research questions 1, 2, and 3 was 2,055. Table 1 contains the results.

Table 1
Students who Reenrolled in the Fall of 2015 and Course Type (AP Math, AP English, or Dual Enrollment)

	Fall-to-Fall Retention in 2015	
Course Type	**Yes**	**No**
AP Math	89.86%	10.14%
No AP Math	70.29%	29.71%
AP English	90.38%	9.62%
No AP English	69.91%	30.09%
Dual Enrollment	87.21%	12.79%
No Dual Enrollment	70.24%	29.76%

Students who enroll with AP mathematics, AP English, or dual enrollment credit were significantly more likely to reenroll than students who did not enroll with credit. Students who enrolled with AP math credit were 19.57% more likely to reenroll than students who did not enroll with AP math credit. Students who enrolled with AP English credit were 20.47% more likely to reenroll than students who did not enroll with AP English credit. Students who enrolled with dual enrollment credit were 16.97% more likely to reenroll than students who did not enroll with dual enrollment credit.

Research question 4 focused on fall-to-fall retention rates for students who enrolled with AP English or math credit versus students who enrolled with dual enrollment credit. The sample size for this research question was much smaller than the other six research questions with a population of 209. Results show that students who enrolled with AP credit in English or math were not more likely to reenroll than students who enrolled with dual enrollment credit. Table 2 contains these results. Students who enrolled with AP English or math credit were only 3.6% more likely to reenroll than students who reenrolled with dual enrollment credit; this is not a statistically significant difference.

Table 2
Students who Reenrolled in the Fall of 2015 and Course Type (AP Math, AP English or Dual Enrollment)

	Fall-to-Fall Retention in 2015	
Course Type	**Yes**	**No**
AP Math or AP English	*88.32%*	*11.68%*
Dual Enrollment	*84.72%*	*15.68%*

Research questions 5, 6, and 7 focused on college readiness as defined by the TBR for students who enrolled for the first time in the fall of 2014 with either AP mathematics or AP English credit. Students who enrolled with AP English credit were significantly more likely to be college ready in both English and reading than students who did not enroll with AP English credit. They were 19.73% more likely to be college ready in English and 6.27% more likely to be college ready in reading than students who did not enroll with AP English credit. Table 3 contains the results.

Table 3
Students who were Deemed College Ready (English or Reading) and who Enrolled with AP English Credit

	Enrolled with AP English Credit	
English College Ready	**Yes**	**No**
Yes	100%	80.27%
No	0%	19.73%
Reading College Ready	**Yes**	**No**
Yes	100%	93.73%
No	0%	6.27%

Students who enrolled with AP math credit were significantly more likely to be college ready in math than students who did not enroll with AP math credit. They were 33.43% more likely to be college ready in math than students who did not enroll with AP math credit. Table 4 contains the results.

Table 4
Students who were Deemed Mathematics College Ready and Enrolled with AP Mathematics Credit

	Enrolled with AP Mathematics Credit	
Mathematics College Ready	**Yes**	**No**
Yes	100%	66.57%
No	0%	33.43%

The researchers found that AP English, AP math, and dual enrollment credits increase first year fall-to-fall college retention. There was not a significant difference between the first year retention rates of students who enroll with AP English or math credit and students who enroll with dual enrollment credit and first year retention rates. Credit in AP English increases the chance a student will be English college ready and credit in AP mathematics increases the chance a student will be college ready in mathematics.

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Community College Students: Social Capital and the Soft Skills of Leadership

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ABSTRACT

In 2016, a leadership conference for community college students was initiated. The impetus for the undertaking was a perception that community college students may not have access to activities focused on social capital and the soft skills of leadership. Community college students are diverse based on age, race, ethnicity, and socio-economic status. They come to campus for classes and may leave immediately after class for jobs or family responsibilities. The parking areas of community colleges are ideal observation points for the transitory nature of the community college. Meetings and discussions with Vice Presidents from two community colleges, led to the leadership conference. The conference included a keynote presentation, 21 concurrent sessions related to social capital and the soft skills of leadership, and students' self- reflections on their leadership skills. Sponsors provided funds for lunch and prizes. The positive results of the first event in 2016 led to a second event in 2017. The manuscript provides details of the initiative.

Background

The basis for the leadership initiative emerged from experiences on community college campuses and discussions with community college leaders at the campuses. During visits to community college campuses, the transitory milieu was apparent. Students arrived at the building doors and walked to meeting rooms or labs. When classes or labs ended, students left the building and the campus. Although the campuses are well equipped with student centers, cafeterias, and lounges, the predominant number of students left the building at the end of sessions. Throughout the buildings, bulletins and newsletters announced activities for students. However, the events were limited. Typical activities announced on bulletin boards and on fliers were movie nights, a summer trip to an amusement park, special days that featured: hot dogs, chips, pop and games; ice cream sundaes and games; pancakes and sausage day; massage day; and wellness day. Each of these events was accessible to students who were on campus who had student IDs. Student organizations or clubs were limited. A student senate and a multicultural club were opportunities for student involvement. Observation of the extensive parking areas on the campuses is a measure of the mobility of the students. Observation of the entryways provides an opportunity to observe the number of individuals in transit at the campuses.

Observations of Community College Students

In comparison to leadership and student involvement opportunities offered for students on a four-year college campus, the opportunities on the community college campus may be limited. The differences may reflect the students served by the community colleges. Students are diverse based on age, race, ethnicity, career intentions, socio-economic status and funding support.

Part time and full time students attend community colleges. Students who have jobs may need to schedule classes based on work schedules. Students may have family responsibilities that influence their ability to be on campus. The ages of students differ and include individuals who are teenagers to those who are 70 years of age or older.

Community college students may be recent high school graduates who intend to pursue a vocational or technical field. Individuals may seek an associate of arts or associate of science degree. Students may be completing courses to meet undergraduate requirements at a four-year college.

Community college students may be adults returning to campus after raising a family. Students may be individuals who are seeking skills for a different vocational or technical field after a job displacement or a workforce reduction.

Community college students may be international students who are recent immigrants. Students may be international individuals who have academic degrees from

international universities who are preparing to enter the U.S. workforce.

Students' needs for college activities beyond the classroom or the laboratory vary based on their life stages. Their reasons for the choice to attend a community college vary as well.

Leadership Initiative

Observations of the transitory aspect of community college students and the programming offered to students on the campuses led to the development of a leadership initiative for community college students. To develop the initiative, community college leaders on two community college campuses were consulted. Their comments and offers of support were fundamental to the development of the initiative.

Key elements of the conversations with the community college leaders were about the expectations of employers communicated to the leaders. These comments included employers' concerns about new employees who come to the work place. The employers reported that the new employees might not be prepared to work a full day. Completion of the work shift on each scheduled day of employment was an employer expectation. Communication skills, interpersonal skills, work attitude, "dressing for success," teamwork, creativity/imagination, willingness to learn, and attention to detail were skills cited by the community college leaders as desirable workplace skills.

The literature on the soft skills of leadership encompasses the skills expected of community college students. The soft skills expected by employers are subjects of research and articles by Andrews and Higson (2008), Chell and Athayde (2011), Ellis, Kisling, and Hackworth (2014), Kyllonen (2013), McCale (2008), Pandey and Pandey (2015), and Weedon and Tett (2013). Soft skill development, assessment, and performance are topics addressed by Brungardt (2011), Chamorro-Premuzic, Arteche, Bremner, Greven, and Furnham (2010), Gibb (2013), Harris and Rogers (2008), Jelphs (2006), and Malhotra (2016).

Based on the discussions with the community college leaders and the literature reviewed, a leadership conference emerged. The intent of the conference was to enhance students' leadership skills, specifically social and interpersonal skills, to provide access to community leaders, to foster students' development of community networks, to focus on students' goals and dreams and to encourage students to look in and look to the future. Collectively, the conference contributes to students' social capital.

Leadership Conference

Speakers from community agencies, business and industry as well as individuals recognized for their leadership accomplishments were invited to present. The focus was on skills expected in work settings. Speakers highlighted their leadership journeys and dreams. Media, such as YouTube clips, were used to highlight leadership skills and encourage conversations with the students. In February 2016, Leadership Skills for the World of Work was held. All community college students on the campuses were invited to attend.

The format for the conference included 21 breakout sessions. Students had a choice of three sessions during each of seven time slots throughout a Saturday. The conference schedule was from 9:30 a.m.-3:00 p.m. The keynote speaker was a community college leader. His presentation, "Dream Big" included his experiences as a young man and his father's influence on his acquisition of work skills. He captured the students' attention because the story was an honest, understandable, humorous and humble report of what made it possible for him to achieve the position he currently holds.

Following the keynote, the students selected breakout sessions to attend. Presenters had topic specialties and held a variety of career positions. Based on the students' engagement in the sessions and their comments about the event, the presenters were well-received and had the "right stuff" according to the students.

Examples of session topics include: Edgy to Elegance: How to Overcome Your Fear of Public Speaking, Your Social Media Impact, Keys to Successful Interviewing, Communication Skills in the Work Environment, Stand Up, "Don't' Stand Out," What I "Got" From My Volunteer Experiences, Investing in Yourself, Make Your Presence Count, and Communication is a Two-Way Street.

In each session room, an individual served as convener, collected the students' answers to questions presented to them at the beginning of the session, and punched each student's card to verify session attendance. The basis for the questions was a visionary leadership typology developed by Grady and LeSourd (1989-1990), LeSourd, and Grady (1989-1990). The leadership typology includes goal setting, creating a shared ideology, commitment, risk taking and future orientation. The questions provided the students with an opportunity to reflect on their leadership. The students' responses provide insight to the students' leadership skills and leadership networks.

Sponsors

The host community college provided meeting facilities for the conference. Facilities included a large general session room and three break out rooms. Funding came as donations from individuals, the American Association of University Women, Doane University, Kaplan University and Nebraska Wesleyan University. Community agencies set up tables around the general session room and greeted students, provided handouts and treats to the students. The college representatives set up tables as well. The university recruiters provided handouts, small tokens and treats as well.

Members of the American Association of University Women sat in the general session room with the other sponsors throughout the day. Their commitment and task was to engage the students in conversations and provide a welcoming environment for the students. Because student attendees came from four different campuses, it was important to welcome the students to the conference campus and remind them that the leadership event was designed just for them.

The funds paid for purchase of lunches and morning refreshments for each of the attendees, the sponsors, and the presenters. The funds allowed us to provide a $5.00 gift card for each student attendee and each of the presenters. Funds allowed the purchase of larger denomination gift cards for gasoline, groceries, and retail outlets such as Target. Other donations included special gifts such as curling irons, hair products, decorator items and gift baskets. One individual donated a large screen television as a major, grand prize.

The drawing for the incentive prizes occurred at the end of the afternoon sessions. To be eligible for a prize, students placed their punch cards from their session attendance in a basket. Students' attendance at a session during each of the time slots was a requirement for prize eligibility.

Student Reflections on Leadership

The students' responses revealed a broad range of leadership skills including communication, problem solving, ability to motivate others, and "getting things done." The students reported their career goals and described what they needed to do to achieve the goals. All of the students identified leaders in their lives. The students noted their accomplishments and provided details about the accomplishments. Students' supporters were family members, friends, instructors and work colleagues. The students provided leadership of or support for family members, friends and co-workers.

Conference Results

Following the first conference, students sent Thank You messages based on their experiences. They also sent requests for contact information for the presenters. The sponsors and presenters described their experiences as very positive.

In discussions with the presenters and sponsors, a common theme was the "thawing of the students" from morning to lunchtime to prize time. In the early part of the conference, the students were shy and uncertain. The conference may have been their first experience at an event such as this one. The choices of sessions to attend and meeting new people may have been a challenge. However, as the day progressed, the students had an opportunity to visit with the presenters, sponsors and other students. The students became more comfortable and confident as they moved from room to room. Lunch in the large room allowed students to visit while they ate. The collective anticipation of the prize phase of the afternoon was an asset.

When the names for prize recipients were drawn, the students' focus was obvious from the front of the room as the students came forward to retrieve their prizes. For each prize awarded, all cheered and applauded. The environment was marked as a supportive, comfortable gathering of individuals who were no longer strangers to each other.

An interesting observation of the prize phase was the students who acknowledged that with the $5 gift card they could buy milk; or, the students who received $25 or $50 dollar gift cards who were delighted because the cards were from local grocery stores. This side note is important for future prize purchases and as a reminder of who the beneficiaries of the conference are.

A result of the success of the first conference will be a second Leadership Skills for the Workplace Conference in 2017.

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Overlooked Authors: Financial Returns to Publications for Faculty at Non-Doctoral Granting Institutions

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ABSTRACT

Studies of financial returns to publication typically focus on publications by faculty at top doctoral granting institutions for publishing in the top journals of the field. This study expands the field of inquiry to examine financial returns to academic accountants at master's and bachelor's granting institutions for publishing in a wide range of accounting and non-accounting journals. Using an individual-specific data set of full-time, tenure-track accountants, this study broadens the scope of inquiry by examining the impact of not only publications in top accounting journals, but also of publications in other ranked, practitioner and unranked accounting journals as well as journals in other business disciplines. The study examines overlooked authors – those faculty members employed at master's and bachelor's granting institutions – and examines their financial returns to publication compared to those faculty members employed at doctoral granting institutions.

While results confirm the importance of publishing in the top five accounting journals at doctoral granting institutions, different wage equations emerge for faculty at master's and bachelor's granting institutions. Faculty members at master's granting institutions are rewarded for publication in both the top accounting and non-accounting journals as well as for publications in lower ranked accounting and practitioner journals. Faculty members employed by bachelor's granting institutions are primarily rewarded for publications in practitioner journals.

Keywords: accounting faculty; salary; compensation; publication.

Introduction

Research across academic disciplines including accounting, economics, finance and marketing has demonstrated the positive financial impact of publications in top journals within the discipline for faculty working at top doctoral granting institutions. While this research affirms the expectations one has of publication requirements and rewards at large, research-oriented institutions, it ignores financial returns related to other academic outlets and other academic researchers. Specifically, the literature has not yet examined the financial returns for accountants stemming from publications in journals that are not included at the top of the discipline nor has it fully explored the returns to publication for the numerous researchers employed at non-doctoral granting institutions.

It is intuitively appealing that publications in top accounting journals generate positive financial returns. Most recently, Almer, Bertolini and Higgs (2013) provide

empirical support for positive financial premiums associated with publication in the top 11 accounting journals by faculty employed in the largest U.S. accounting programs. Similarly, using journal rank as a proxy for the quality of an article, publications in top journals tend to be important to tenure and promotion decisions (Swanson, Wolf and Zardkoohl, 2007) which also lead to increases in salary. The opportunities for publishing in the top accounting journals, however, are constrained. Each of the top journals publishes a limited number of articles per year, providing opportunities for only a few of the estimated 17,000 accounting faculty in 2004 (AAA Report, 2008). In 2014, for example, the top ten journals in accounting published 351 different articles; the top five journals in accounting published 214 of those articles.1 In addition, institution often heavily concentrates publications in top journals. Swanson et al. (2007) demonstrate that faculty at 25 (high-research, doctoral granting) institutions authored more than half of the articles published in four of the top accounting journals. As a result, accounting scholars who must publish do so in alternative outlets, including lower tier accounting, practitioner and non-accounting journals. Matherly and Shortridge (2009) note a significant number of publications in non-accounting and accounting practitioner journals. Similarly, Herron and Hall (2004) find that half of the journals in their top 20 listing are non-accounting.

In confirming a significant financial return to publications in the top 11 accounting journals, Almer et al. (2013) noted that there were fewer faculty members at non-doctoral institutions who had published in those journals. This may reflect the competitive nature of publishing in the top journals, but most likely also reflects differences in institutional mission where most non-doctoral institutions place less emphasis on research than teaching. It is reasonable, then, that the model for financial returns to publishing by faculty members at non-doctoral institutions should differ from the model for faculty members at more research focused institutions.

Accordingly, this study examines the impact on financial returns to academic accountants at master's and bachelor's granting institutions who publish in a wide range of accounting and non-accounting journals. Using an individual-specific data set of full-time, tenure-track accountants, this study broadens the scope of inquiry by examining the impact on financial returns of not only top journals but of other outlets as well. Specifically, it includes ranked accounting journals, practitioner journals, unranked accounting journals and journals in other business disciplines. With this data and emphasis, this study examines a financial model that applies to faculty members employed at master's and bachelor's granting institutions. Results for faculty members employed at doctoral-granting institutions are included for comparative purposes.

Results confirm that publishing in the top accounting journals generates a positive financial return for faculty members at master's granting institutions. However, positive and substantial financial returns are also generated by publishing in less-highly ranked accounting journals, practitioner journals and top non-accounting journals. For bachelor's granting institutions, positive financial returns are primarily generated by publishing in practitioner journals. Results also affirm findings by Almer et al. (2013) that publications in top journals generate financial returns for those employed at doctoral-granting institutions. When a full range of publication outlets is included, however, this study indicates that only publications in the top five journals make a significant contribution to financial returns.

The paper is organized to provide the contribution in the setting of previous and related work on the subject in the following section. Next, the paper presents the data and the collection methodology. This section is followed by a discussion of the empirical findings, including descriptive statistics and regression results. The paper concludes with a discussion of the findings, limitations and opportunities for further research.

Background

The unique characteristics of the academic labor market and its corresponding wage equation have inspired a great deal of scholarly examination. Differences in discipline and type of institution often constrain the scope of inquiry. With regard to discipline, significant research has centered on the wage equation for economists (e.g., Bratsberg, Ragan and Warren, 2010; Moore, Newman and Turnbull, 1998; Fender, Taylor and Burke, 2015). Others researchers have examined salaries for academics in fields such as marketing (Mittal, Feick and Murshed, 2008), finance (Swidler and Goldreyer, 1998) and accounting (Almer et al., 2013).

Similarly, type of institution tends to define the scope of inquiry further. Many researchers (e.g. Bratsberg et al., 2010; Moore et al., 1998; Mittal et al., 2008; Swidler and Goldreyer, 1998) focus on faculty employed across similar institutions, usually doctoral granting. There are limited exceptions to the research focused on doctoral granting institutions. Almer et al. (2013) expanded their examination to include not only doctoral, but also other large programs (those where there were 10 or more accounting

1 Based on a count of each article, excluding notes and comments, in each of the top journals published in 2014.

faculty). Similarly, Fender et al. (2015) examined a cross section of economists across public institutions that included baccalaureate, master's and doctoral granting institutions.

While research productivity has an impact on academic wages, the nature of that impact depends upon the way the quality of scholarship is measured. One of the most common methods to control for quality differences in publications is to limit productivity to publications in "top journals." In their examination of financial returns to accountants, Almer et al. (2013) measure research productivity using the BYU Accounting Research Rankings database2, which provides an aggregate measure of publications in the top 11 journals in accounting. Their results indicate that publication in the top journals is highly significant for the salaries of faculty members in doctoral-granting and large accounting departments. Similarly, Swidler and Goldreyer (1998) find a significant positive return to publishing in top finance journals.

Other researchers include a larger number of journals and control for quality. Bratsberg et al. (2010) create four tiers of economics publications ranging from the top 10, top 25, top 50 and other. Their results indicate that all publications influence salaries, with the larger impact coming from publications in the top ten journals. Similarly, in their study of marketing salaries, Mittal et al. (2008) include a large number of publications, classifying the publications as either marketing or business journals, and distinguishing between the top and other journals in each category. Their results conclude that publishing in any marketing journal or top business publication generates positive financial returns. While the impact of publishing in the other marketing journals was small, it was significant – only publications in the other business journals had no impact on the salary of marketing academics. In their study of economists, Fender et al. (2015) include all publications in economics journals. Using journal rankings to create a quality-weighted index for those publications, Fender et al. (2015) report positive returns to quality-weighted publications.

The data set for this study addresses some of the limitations of the extant literature. While limited to an examination of accounting faculty at public institutions, this study focuses on those institutions offering master's or bachelor's degrees, and includes 202 institutions that vary according to highest degree offered (doctorate, masters or bachelor's) as well as to size of the department. In addition, this study incorporates all publications, accounting and other, available from research databases including EBSCOhost, Social Science Citation Index (SSCI) and EconLit. This breadth of scope allows an examination of the financial model for faculty members employed at non-doctoral granting institutions for a variety of publications in accounting and non-accounting journals.

The Data

Collection of salary data for faculty members at public institutions began with interlibrary loan requests for budget information for 2007-08 from public schools listed in Hasselback's Directory of Accounting Faculty (2008). For institutions that did not reply or provide the requested information, the authors used a variety of other methods to obtain salary information, including online databases, publications in state documents and filings under the freedom of information act. Consistent with prior research (Mittal et al., 2008; Almer et al., 2013), base salary, rather than total compensation (including summer pay, stipends, etc.), was selected for comparison among institutions.

In total, information for 1,285 faculty members at 202 state institutions was obtained. Of these, approximately two-thirds of the faculty members were employed at master's or bachelor's granting institutions. Specifically 420 (32.7 percent) faculty members were employed at doctoral granting institutions, 673 (52.4 percent) at master's granting institutions and 192 (14.9 percent) were employed at bachelor's level institutions.

Scholarly Productivity

This study includes comprehensive measures of scholarly productivity including publications in peer-reviewed journals, books, and citations. Publication in peer reviewed journals is generally the gold standard in academia and thus should positively impact income, though it is unclear a priori the size and significance which publication in lower level journals or non-accounting journals have on salary. The study also includes the number of books published by each individual3 and the number of citations for each author as obtained from SSCI using its database dating back to 1970. Both are assumed a priori to positively influence academic salaries. Table 1 summarizes all variable definitions.

Two fundamental issues are addressed in assessing peer-reviewed publications. The first is which journals should be included in the study. The second involves weighting the journals according to their quality. As previously noted,

2 Available at: http://www.byuaccounting.net/rankings/univrank/rankings.php

3 Multiple editions of a book are reflected as one book.

many researchers solve these issues simultaneously by limiting the examination to publications in "top" accounting journals. This study, however, includes all peer-reviewed journals available in the databases described below and thus teases out the impact of publications in a wide variety of journal type and quality on the wage equation of accountants. Accordingly, scholarly productivity for each of the faculty members included in the sample is obtained through searching three main databases: EBSCOhost, EconLit and SSCI. All publications, excluding comments and replies, found in these databases are recorded for every faculty member in the sample. Any ranked accounting journals that were not included in the databases (e.g., Advances in Management Accounting) were specifically researched by accessing the print or online publications.

Similar to Mittal et al. (2008) and Swidler and Goldreyer (1998), the quality of peer-reviewed publications is accounted for by initially classifying each journal as either accounting or non-accounting. Because there can be significant disagreement in what constitutes an accounting rather than a non-accounting journal, several rules were applied. First, journals included in the rankings of accounting journals (Bonner, Hesford, Van der Stede and Young, 2006; Johnson, Reckers and Solomon, 2001; Ballas and Theoharakis, 2003) were considered accounting journals. Journals identified in Mittal et al. (2008) for other business disciplines were considered non-accounting journals. Each remaining unranked journal was reviewed to determine whether its primary audience was members of any accounting field (e.g. financial accounting, auditing, tax, managerial, etc.). If not, these journals were considered non-accounting journals. For example, Research in Accounting Regulation and Journal of Corporate Accounting and Finance, while unranked, are considered accounting journals; Strategic Finance and HR Magazine are considered non-accounting journals.

Each category was then subdivided into different tiers according to the quality of those journals. Within the accounting journals, tier one (A1) includes the top five journals in accounting relative to the time period of publications under review (Bonner et al., 2006) – Accounting, Organizations & Society; Contemporary Accounting Research; Journal of Accounting and Economics; Journal of Accounting Research; and The Accounting Review. The second tier of accounting journals (A2) includes the remaining five journals of the top ten journals identified by Johnson et al. (2001), i.e. those that are not included in the top tier. The second tier thus includes Auditing: A Journal of Practice & Theory; Journal of the American Tax Association; Journal of Accounting; Auditing & Finance; Behavioral Research in Accounting; and Accounting Horizons. The third tier of accounting journals (A3) includes journals ranked by Ballas and Theoharakis (2003) but excluded from A1 and A2. Tier four (A4) includes unranked practitioner journals, i.e. those practitioner journals not included in A1, A2 or A3 in which members of the sample published – not a complete list of unranked practitioner journals. Journals were included in A4 based on their stated audience, i.e. practitioners, professionals, executives, etc. All remaining accounting journals included in the sample are included in tier five (A5). Appendix A includes a list of journals included in tiers A1 through A4.

With regard to the non-accounting journals, Mittal et al. (2008) defined top journals in each business discipline (finance, information systems, management, operations, and economics). Mittal et al. (2008) also defined journals from top business interdisciplinary, practitioner-focused, psychology and other basic areas. These journals are included in tier one of the non-accounting journals (NA1) and are listed in Appendix B. All remaining non-accounting journals are included in tier two (NA2).

Other Explanatory Variables

Table 1 presents other variables, including those that reflect personal and institutional characteristics. The effect of many of these variables has been examined by researchers in economics, finance, and marketing and more recently in accounting.

Gender (Male), rank (Professor, Associate and Assistant) and administrative duties (Administrator) are typical determinants of salary. The literature examining gender impact on research productivity (Fogarty, 2004; Burke, Fender and Taylor, 2008) and salary (Almer et al., 2013) in accounting suggests no differences in productivity or salary between men and women. Accordingly, we anticipate no gender effect on salary.

With regard to rank, prior research (Samavati, Dilts and Haber, 2007; Almer et al., 2013) indicates that mean salaries for associate professors are lower than those for assistant professor at doctoral and top-ranked doctoral institutions. As demonstrated in Table 2, this finding does not hold true for the current sample, although averages for associates and assistants are quite close for some institutions. When all doctoral institutions (both top-ranked and other) are combined, the average salaries for assistant and associate professors are within a few hundred dollars of each other, with the associates receiving the slightly higher amount. At master's granting institutions, the average salary for associate professors exceeds the average salary for assistant professors by 1.7 percent. The largest difference between the average salaries of associate and assistant professors is noted for bachelor's institutions where associates receive, on average, 8.5 percent higher salaries

than assistants. While some of these findings affirm the presence of salary compression, particularly for doctoral granting and some master's institutions, for the individual, promotion from assistant to associate and associate to professor is still anticipated to increase salary after controlling for other important variables. Administrators are also expected to earn higher salaries (Moore et al., 1998; Swidler and Goldreyer, 1998; Almer et al., 2013).

Seniority measures the number of years faculty members have worked at their current institutions and was determined with reference to the start date provided by Hasselback (2008). Seniority is expected to have a negative and diminishing impact on salary, consistent with the findings of Bratsberg et al. (2010) in economics and Swidler and Goldreyer (1998) in finance. To reflect this nonlinear relationship between seniority and base salary, the study includes both Seniority and Seniority Squared. Extant research in accounting (Almer et al., 2013) also finds a negative effect for seniority, but does not test the nonlinear relationship anticipated here.

Highest degree obtained is included in the form of two dummy variables. Doctoral degree indicates those faculty members who possess either a Ph.D. or a D.B.A., where JD or LLM designates individuals for whom those are the highest degree. These designations were obtained from Hasselback (2008). Both degree variables are expected to have a positive impact on salary (Barbezat and Hughes, 2001; Almer et al., 2013).

This model also includes two measures specific to faculty in accounting, both of which were obtained from Hasselback (2008). CPA denotes those faculty members who have the CPA designation. While not found to significantly influence salary at larger institutions (Almer et al., 2013), the designation may have a positive impact on salary when smaller institutions are included in the analysis. In addition, the model includes dummy variables for the six most popular teaching and research interest areas (Almer et al., 2013) identified in Hasselback (2008) for each faculty member. Hasselback provides 26 teaching or research interests that faculty members may select. Like Almer et al. (2013), we have included the six most popular interest areas as separate variables in the model. These included Financial, Audit, Managerial, Systems, Tax and Behavioral. All remaining interest areas are included in Other.

Certain institutional characteristics are also expected to impact salaries. Accreditation by AACSB International (AACSB) signals the quality of an institution's program and resources sufficient to maintain that quality. As such, accreditation is expected to increase salaries. Whether an institution had AACSB accreditation was determined with reference to the AACSB membership list4 on its website. Named business schools (Named B-School) are more likely to reflect access to resources that should positively affect salaries (Almer et al., 2013). Whether a business school is named was determined by reference to the school's website. In addition, the model includes a variable to distinguish between those larger and smaller departments, noting that some larger departments tend to have more access to resources, regardless of the highest degree offered by the institution. The variable, Size, reflects the number of accounting faculty at each institution, excluding lecturers and visiting professors.

Two additional variables related to standard of living are also included in the model. Because a $130,000 salary in a rural market in Tennessee equates to a higher standard of living than the same salary in Boston, Samavati et al. (2007) notes the importance of purchasing power, i.e. the "real wage," in the salary equation. Accordingly, the cost of living index (COLI) is expected to be a significant determinate of academic salary (Samavati et al., 2007; Almer et al., 2013). COLI was derived from data collected by the Council for Community and Economic Research.5 In addition, collective bargaining may also act to maintain a standard of living for its members. Institutions in the sample that operate under collective bargaining agreements are identified with a dummy variable, Union, and collected from Moriarty and Savarese (2006). Union is expected to positively influence salaries.

Results

Descriptive Statistics

Table 3 presents descriptive statistics for all variables. The mean salary for all faculty was $118,315 while those at doctoral institutions was $153,056, at master's granting institutions was $104,784 and at bachelor's institutions was $89,748. With regard to the personal characteristics of the sample, 74 percent are male, while 41percent of the sample has the rank of professor, 34 percent are associate professors and 25 percent are assistant professors. In addition, 11 percent of the faculty members in the study are identified in Hasselback (2008) as having some administrative responsibility including chair, head or director. Individuals in this sample are relatively senior, with an average of 16.33 years at the current institution overall, 15.70 years at doctoral institutions, 16.64 years at master's

4 Available at http://www.aacsb.edu/en/accreditation/accredited-members/

5 Available at http://www.coli.org/

granting institutions and 16.66 at bachelor's institutions. Most of the faculty in the sample (65 percent) are CPAs, and consistent with Fogarty and Black (2014), doctoral institutions have the lowest percentage (57 percent) of faculty with the CPA designation.

Eighty-nine percent of the institutions in this sample were accredited by AACSB, with 100 percent of the doctoral institutions being accredited, 88 percent of the master's institutions and only 68 percent of the bachelor's institutions being accredited. Thirty-seven percent of the institutions in the sample had named business schools, but 66 percent of the doctoral granting institutions had named business schools compared to 26 percent of the master's and 15 percent of the bachelor's granting institutions. Thirty-five percent of the faculty in this sample worked for unionized institutions. Roughly 32 percent of faculty worked at doctoral institutions, 52 percent at master's granting institutions and 15 percent at bachelor's institutions. On average, accounting departments in this sample included 14.34 faculty members, with the doctoral institutions reporting 20.90 faculty, the master's institutions reporting 12.19 and the bachelor's institutions reporting 7.53 faculty members.

Table 4 expands the summary statistics for publications in accounting and non-accounting journals, books and citations. For each type of publication, Table 4 provides the average number of publications, the percent of faculty who published in that tier, and the average number of publications among faculty who published in that tier. For example, overall faculty published an average of 1.12 articles in tier A1, with 29.26 percent of the faculty publishing in A1. On average, faculty who published in tier A1 published 3.83 articles. Considering the entire sample, on average, faculty published more than one article in tier A1 (top five journals) and tier A3 (other ranked accounting journals). On average, faculty also published 1.63 articles in tier NA2 (unranked non-accounting journals). At least 29 percent of the faculty in the sample published in each of the tiers except for A5 and NA1 where only 8.95 percent and 12.14 percent published, respectively.

Differences in publication outlets by type of institution are also noteworthy. Faculty at doctoral institutions published, on average, 2.86 articles in tier A1, and 62.38 percent of those faculty published in that tier. The faculty at doctoral institutions who published in tier A1 published an average of 4.58 articles. Faculty at master's institutions published more articles in tier NA2 than in any other outlet, with an average of 1.51 articles and 52.30 percent of the faculty publishing in that tier. These faculty also published more than one article, on average, in tier A3 (other ranked journals) where they published 1.10 articles and tier A4 (practitioner journals) where they published 1.14 articles. Not surprisingly, faculty members at bachelor's institutions published the fewest articles. Among all outlets, these faculty members published more articles, 0.80, in NA2 (non-accounting journals) followed by A3 (other ranked journals) and A4 (practitioner journals) where the average number of publications dropped to 0.47 and 0.45, respectively.

Table 4 also demonstrates that on average, faculty in the sample received 23.25 citations, with 59.42 citations per faculty member at doctoral institutions, dropping to 7.08 for faculty at master's granting institutions and 0.82 for faculty at bachelor's institutions. A similar pattern is noted in the publication of books, where on average faculty members published 0.88 books. Faculty at doctoral institutions published 1.61, dropping to 0.59 and 0.30 for faculty at master's and bachelor's granting institutions, respectively.

Regression Results

The model was estimated using Ordinary Least Squares regression techniques and the dependent variable is base salary. Table 5 presents regression results for the overall model, then for each type of institution. The adjusted R2 is .60 for the overall model, .46, .39 and .36 for the doctoral, master's and bachelor's granting institutions, respectively. These adjusted R2 statistics are consistent with previous studies (Mittal et al., 2008; Almer et al., 2013).

The overall model reveals the significance ($p<.05$) of publications in the top journals (tiers A1 and A2), practitioner journals (A4) and top non-accounting journals (NA1) as determinants of salaries. Ranked accounting journals other than the top journals (A3), unranked accounting journals (A5) and other non-accounting journals (NA2) are not significant for the overall model. Citations and books are also significant determinants ($p<.05$) in the wage equation. The coefficients suggest incremental earnings from publications in each of the significant tiers as well as from citations and books. Among the journals, these coefficients suggest that highest incremental earnings result from publications in A1 ($4,025), NA1($2,120) and A4 ($1,156).

What is of most interest, however, is the financial model for the different types of institutions. The model for doctoral institutions affirms the results of Almer et al. (2013) regarding the importance of publishing in top accounting journals. When a range of publication outlets is included, however, these results indicate that it is publication in the top five accounting journals and citations that are significant ($p<.05$) and drive the wage equation for faculty at these institutions. The incremental earnings from publication in tier A1 for faculty at doctoral institutions

is $3,713. Other publication components of the financial model for doctoral institutions were citations and books.

The analysis uncovers a different set of determinants in the wage equation for faculty at master's granting institutions. For these faculty, an expanded set of publications drives financial returns. While publications in the top five accounting journals (A1) are significant, other ranked accounting journals (A3), practitioner journals (A4) and most notably in top non-accounting journals (NA1) produce measurable returns. The largest incremental gains at the master's granting institutions result from publications in tiers NA1 and A1, where a publication in top non-accounting journals (NA1) earns $7,792 compared to $2,892 for a publication in one of the top five accounting journals (A1). These returns to publications in top journals, whether accounting or non-accounting, affirm that quality publications are valued and rewarded by master's granting institutions. The substantial difference between returns for publishing in tier NA1 versus tier A1 may reflect the more limited opportunities for publication in the top five accounting journals, particularly when considering the emphasis placed on publication in these journals by doctoral granting institutions. It is possible, although untested, that this result may also reflect an increased value for coauthorship among the faculty from different disciplines of master's granting institutions where missions may be less research-oriented, perhaps leaving less time for single authorship or indicating that other top-tier journals "count." It is also important to note that publications in the other ranked accounting (A3) and practitioner (A4) journals ($1,994 and $1,929, respectively) result in significant financial returns. While the magnitude of these returns vary, significant incremental earnings stemming from a variety of different types of publications indicate that master's granting institutions employ a different wage equation. This equation emphasizes contributions to a broader literature when compared to the doctoral equation that emphasizes publication in the specific accounting literature.

Results for bachelor's granting institutions reveal that publications in (A4) unranked practitioner's journals have a significant (p<.05) effect on the wage equation. There is a marginally significant (p<.10) effect for publications in the lower half of the top ten accounting journals (A2).

Interestingly, publications in non-accounting journals other than the top (tier NA2) do not generate significant returns for faculty at any type of institution. In each category, however, faculty published, on average, a healthy number of articles in these journals. In fact, for other master's and bachelor's granting institutions, faculty published the most articles in this category, and at doctoral institutions, faculty only published more articles in tier A1 (see Table 4). The volume of articles in NA2 combined with its lack of financial impact suggests that these publications have some other value to faculty. For example, these publications may enhance a faculty member's case for tenure and promotion. They may meet minimum standards for academic qualification according to AACSB. Finally, they may reflect special research interests of more mature faculty who are less concerned about financial returns.

Consistent with existing literature, Gender and the CPA designation are not significant in any of the models. The results for CPA designation are consistent with Fogarty and Black (2014) findings that the increasing emphasis on research reduces or eliminates the advantages of the designation. Doctoral degree is significant (p<.05) overall and at the master's and bachelor's granting institution where because of accreditation requirements those individuals are necessary, but because of salary differences, they may be harder to hire and retain. JD or LLM is significant for bachelor's granting institutions only among the institutional models. This may suggest that the bachelor's granting institutions are more reliant on faculty members with JDs or LLMs than are the doctoral or master's institutions where a higher percentage of institutions is accredited (88 percent of master's granting versus 68 percent of bachelor's granting institutions) and resources may be available to attract individuals with doctoral degrees.

The analysis indicates few significant results for teaching and research interest areas for master's or bachelor's granting institutions. Systems and Tax were significant or marginally significant and negative in models for doctoral granting institutions, indicating that other things held constant, the faculty member who indicates a specialty in any of these areas is penalized. Systems was significant (p<.05) and negative for doctoral institutions in this study6. Similarly, Tax was marginally significant (p<.10) and negative for doctoral institutions. These large negative effects on earnings may occur because there are no systems or tax journals included in tier A1. The top systems journals are included in tier NA1, but publications in that tier are not significant for doctoral institutions.

For master's and bachelor's granting institutions, no other teaching or research interest areas demonstrated significant results other than a marginally significant (p<.10) and negative result for the Other category. One possible explanation of these results is that these interest areas are self-reported and may be more indicative of faculty teaching areas than research interests. Even if the research in-

6 Note that Almer et al. (2013) found no effect for Systems at top doctoral programs, but a large and negative effect for other doctoral institutions.

terests are adequately captured, this variable does not reflect the degree to which a faculty member researches in a particular area. A second possible explanation is that faculty members at master's or bachelor's granting programs may have to be more flexible and less specialized in their teaching interest due to resource constraints than those faculty members at doctoral granting programs.

Rank and seniority variables should be considered jointly. Professor is positive and significant (p<.Ø5) for each of the model specifications except bachelor's granting institutions, and Associate Professor is positive and marginally significant (p<.1Ø) for the overall model and doctoral institutions. These results suggest that earnings increase with promotion even after controlling for scholarly productivity and other characteristics at doctoral and master's granting institutions. Seniority and seniority squared are jointly significant (p<.Ø5) in all models except bachelor's granting institutions, and indicate that an additional year at a particular institution has a negative but diminishing impact on salary after controlling for productivity, institutional and personal characteristics.

With regard to institutional characteristics, accreditation by AACSB International has a significant (p<.Ø5) and positive effect overall and for bachelor's granting institutions7 where 68 percent of the institutions in the sample were accredited. While 88 percent of the master's granting institutions were accredited, accreditation has only a marginally significant (p<.Ø5) impact. Having a named business school also has a positive and significant (p<.Ø5) impact on earnings for faculty at doctoral and master's granting institutions.

The Union measure, reflecting institutions with collective bargaining agreements, was not significant in any specification of the model. Similarly, department size was only significant (p<.Ø5) for master's granting institutions and marginally significant (p<.1Ø) for doctoral granting institutions. The impact of cost of living in the wage equation was not significant in any specification of the model.

Conclusions and Limitations

Using individual-specific data and a breadth of publication information, this study examines the financial impact of research productivity for those authors who are typically overlooked – the accounting faculty at master's and bachelor's granting institutions. By including a comparative analysis of faculty members at doctoral institutions and publications in a breadth of journals, the study affirms that while publications in top accounting journals drive the wage equation for those at doctoral granting institutions, there are very different financial models for faculty members at master's and bachelor's granting institutions.

Compared to faculty members at doctoral granting institutions, the financial model for master's granting institutions values and rewards publications in a wide range of different journals, including top journals in non-accounting fields, lower ranked accounting journals and practitioner publications. Certainly, publications in the top five accounting journals and top non-accounting journals provide high impact on base salary, but faculty members also experience significant reward for publication outside of the top journals. The time and effort to publish in the top journals in accounting or other disciplines may exceed the expectations and mission of these master's granting institutions and come with significant opportunity cost to the individual faculty member. Accordingly, while the individual faculty member who publishes in The Accounting Review or The American Economic Review can expect some reward for that publication, that faculty member can also expect financial returns for publishing in a lower tier accounting or practitioner journal. While the reward is not as high, it remains significant and likely comes at a lower opportunity cost to the faculty member.

Correspondingly, the model for bachelor's granting institutions values and rewards publications in practitioner journals. The focus on professional research with more immediate applicability to executives and practitioners seems in keeping with bachelor's granting institutions that will typically lack the mission, structure and administrative support to sustain faculty members engaging in significant academic research.

One of the key contributions of this study is its inclusion and analysis of the impact of non-accounting journals in the publication portfolio of researchers. While faculty members at doctoral granting institutions publish about Ø.71 articles in these top non-accounting journals, and those at master's and bachelor's granting institutions publish Ø.Ø9 and Ø.Ø2, respectively, publishing in the top non-accounting journals pays off only for master's granting institutions, where it pays substantial dividends. Conversely, the remaining non-accounting journals are second-most popular publication outlets for faculty members at doctoral granting institutions (average publications is 2.19), and the most popular outlets on average for faculty at master's (average publications is 1.51) and bachelor's granting institutions (average publications is Ø.82). Yet, these publications have no significant financial impact for any specification of the wage model.

7 Note that all of the doctoral institutions are accredited.

Several factors limit this study. The study is constrained by the availability of public information for accounting faculty. Some public institutions (and all private institutions) do not disclose salary, and others disclose salary information but not by faculty name. In addition, as noted in Almer et al. (2013), there are often financial rewards that are not included in base salary, such that the total compensation is not adequately captured by base salary. However, base salary is a common denominator understood by faculty members as they move between institutions and reported by institutions as they compare faculty salaries and wages. Finally, interest areas included in the study are self-reported and do not necessarily capture the degree to which faculty publish in those identified areas.

Taken as a whole, this study provides insight into the role of different types of publications on financial returns based on the highest degree offered by an institution. First, this study affirms the finding that publication in the top accounting journals drives financial returns for accountants at doctoral institutions. More importantly, the study expands financial returns models to those faculty members employed at master's and bachelor's granting institutions, noting that publications in top non-accounting journals, lower ranked accounting journals and practitioner journals can all generate salary premiums. With these models, there is opportunity to understand wage behavior for a larger population of academic accountants without overlooking those faculty members employed at non-doctoral granting institutions.

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Appendix A
Accounting Journals

Tier	Journal
A1	Accounting Review
	Accounting, Organizations & Society
	Contemporary Accounting Research
	Journal of Accounting & Economics
	Journal of Accounting Research
A2	Accounting Horizons
	Auditing: A Journal of Practice & Theory
	Behavioral Research in Accounting
	Journal of Accounting, Auditing & Finance
	Journal of the American Tax Association
A3	Abacus
	Accounting & Business Research
	Accounting & Finance
	Accounting, Auditing & Accountability Journal
	Accounting Education
	Accounting Educator's Journal
	Accounting Historians Journal
	Advances in Accounting
	Advances in Accounting Information Systems (also International Journal of Accounting Information Systems
	Advances in Management Accounting
	Advances in Taxation
	British Accounting Review
	Critical Perspectives in Accounting
	European Accounting Review
	Harvard Business Review
	International Journal of Accounting
	Issues in Accounting Education
	Journal of Accountancy
	Journal of Accounting & Public Policy
	Journal of Accounting Education
	Journal of Accounting Literature
	Journal of Business Finance & Accounting
	Journal of Cost Management
	Journal of International Accounting, Auditing & Taxation
	Journal of Management Accounting Research
	Journal of Taxation
	Management Accounting Research
	National Tax Journal
	Review of Accounting Studies
	Tax Adviser
A4*	Accountancy
	Accounting Today
	Bank Accounting & Finance
	Chartered Accountants Journal
	CMA Management
	CPA Journal Government Accountants Journal
	Internal Auditor
	International Tax Journal
	Journal of Corporate Accounting & Finance
	Journal of State Taxation
	Management Accounting Quarterly
	National Public Accountant
	Ohio CPA Journal
	Tax Executive
	Woman CPA

This is a list of unranked practitioner journals in which the sample published. It is not a comprehensive list of unranked practitioner journals.

Appendix B
Non-accounting Tier 1 Journals

Business Interdisciplinary:
Administrative Science Quarterly
Journal of Business
Journal of International Business Studies
Management Science
Organizational Behavior & Human Decision Processes
Organization Science
Economics:
American Economic Review
Econometrica
International Economics Review
International Journal of Industrial Organization
Journal of Labor Research
Journal of Political Economy
Quarterly Journal of Economics
RAND Journal of Economics
Review of Economics and Statistics
Review of Economic Studies
Finance:
Journal of Finance
Journal of Financial Economics
Journal of Financial & Quantitative Analysis
Review of Financial Studies
Information Systems:
Communication of ACM
IEEE Transaction – Software Engineering
Information Systems Research
Journal of Management Information Systems
MIS Quarterly
Management:
Academy of Management Journal
Academy of Management Review
Industrial & Labor Relations Review
Industrial Relations
Personnel Psychology
Business & Society
Business Ethics Quarterly

Marketing:
Journal of the Academy of Marketing Science
Journal of Consumer Psychology
Journal of Consumer Research
Journal of Marketing
Journal of Marketing Research
Journal of Retailing
Marketing Science
Marketing Letters
Operations:
Decision Sciences
IIE Transactions
International Journal of Production Research
Mathematics of Operations Research
Manufacturing & Service Operations Management
Naval Research Logistics
Operations Research
SIAM Review
Practitioner-Focused:
Interfaces
Sloan Management Review
Psychology:
Journal of Applied Psychology
Journal of Experimental Psychology
Journal of Experimental Social Psychology
Journal of Personality & Social Psychology
Personality & Social Psychology Bulletin
Personnel Psychology
Psychological Review
Other basic disciplines:
American Political Science Review
American Sociological Review
Journal of American Statistical Association
Mathematical Programming

Table 1		
Variable Definitions		
	Salary	Salary for the 2007-2008 academic year.
Publication Measures:		
	Accounting 1 (A1)	Includes the top five journals in accounting (Bonner et al. 2006) - *Accounting, Organizations & Society; Contemporary Accounting Research; Journal of Accounting and Economics; Journal of Accounting Research* and *The Accounting Review* .
	Accounting 2 (A2)	Includes the remaining five journals of the top ten journals identified by Johnson et al. (2001), i.e. those that are not included in the top tier. The second tier then includes *Auditing: A Journal of Practice & Theory; Journal of the American Tax Association* ; *Journal of Accounting, Auditing & Finance* ; *Behavioral Research in Accounting* and *Accounting Horizons* .
	Accounting 3 (A3)	All ranked accounting journals not in Accounting 1 or Accounting 2.
	Accounting 4 (A4)	All unranked practitioner accounting journals.
	Accounting 5 (A5)	All unranked accounting journals.
	Non-Accounting 1 (NA1)	Top journals in each other business discipline (finance, information systems, management, operations, economics) as well as top business interdisciplinary, practitioner-focused, psychology and other basic areas as defined by Mittal et al. (2008).
	Non-Accounting 2 (NA2)	All remaining non-accounting journals.
	Citations	Citations according to Social Science Citations Index.
	Totalbooks	Total number of books published.
Personal Characteristics:		
	Male	Dummy variable equal to one for males.
	Professor	Dummy variable equal to one if the faculty member has the status of full professor in the 2007-2008 academic year.
	Associate Professor	Dummy variable equal to one if the faculty member has the status of associate professor in the 2007-2008 academic year.
	Assistant Professor	Dummy variable equal to one if the faculty member has the status of assistant professor in the 2007-2008 academic year.
	Administrator	Dummy variable equal to one if the individual is dean, chair or department head.
	Seniority	Number of years of seniority as the current institution.
	Doctoral Degree	Dummy variable equal to one if the highest degree of the individual is a Ph.D. or DBA.
	JD or LLM	Dummy variable equal to one if the highest degree of the individual is a JD or LLM.
	Master's Degree	Dummy variable equal to one if the highest degree of the individual is ABD, DMA, DBA, DPS, EDD, EMD, MA, MACC, MAS, MBA, MBED, MPA, MS, MSA or BS.
	CPA	Dummy variable equal to one if the individual has the designation of CPA in the 2007-2008 academic year.

Table 1 (Continued) Variable Definitions		
	Financial	Dummy variable equal to one if the individual has a financial accounting specialty.
	Audit	Dummy variable equal to one if the individual has an audit specialty.
	Managerial	Dummy variable equal to one if the individual has a managerial accounting specialty.
	Systems	Dummy variable equal to one if the individual has a systems specialty.
	Tax	Dummy variable equal to one if the individual has a tax specialty.
	Behavioral	Dummy variable equal to one if the individual has a behavioral specialty.
	Other	Dummy variable equal to one if the individual indicated a specialty category other than financial accounting, audit, managerial accounting, systems, tax or behavioral.
Institutional Characteristics:		
	AACSB	Dummy variable equal to one if the individual teaches at an institution with AACSB accreditation.
	Named B-School	Dummy variable equal to one if the individual teaches at a named business school.
	Doctoral Institution	Dummy variable equal to one if the highest degree offered is the doctoral degree.
	Master's Institution	Dummy variable equal to one if the highest degree offered is the master's degree.
	Bachelor's Institution	Dummy variable equal to one if the highest degree offered is the bachelor's degree.
	Union	Dummy variable equal to one if the faculty has a collective bargaining agreement.
	Size	Size of the accounting faculty, excluding lecturers and visiting professors.
Other:		
	COLI	American Chamber of Commerce Research Association (ACCRA) cost of living index for 2007.

TABLE 2
SALARY BY INSTITUTION TYPE AND RANK
MEANS (STANDARD DEVIATIONS)

	Overall n=1,285		Doctoral Institution n=420		Master's Institution n=673		Bachelor's Institution n=192	
All Ranks	$118,315	($42,328)	$ 153,056	($48,673)	$ 104,784	($25,351)	$89,748	($21,621)
Professors	$129,063	($47,284)	$171,259	($52,615)	$110,437	($26,513)	$98,064	($19,387)
Associate Professors	$111,501	($38,242)	$140,449	($48,453)	$101,145	($23,095)	$89,016	($17,925)
Assistant Professors	$109,942	($34,595)	$139,842	($29,810)	$99,457	($24,316)	$82,009	($24,795)

An Exploration of the Benefits and Challenges of Public Higher Education Systems

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ABSTRACT

Public higher education systems have relied upon the ability to control individual campuses for the overall welfare of the public which it serves. This coordination and control has the potential to increase efficiencies of efforts, but also has the potential to limit the growth of individual campuses. The current study was designed to identify, explain, and understand the perceived benefits and challenges of higher education systems. Study findings identified a higher level of agreement about the challenges present in systems use, and the strongest benefit perceived of using a systems approach was for group buying power.

The majority of public higher education institutions in the United States are organized around the idea of coordinated public services, and to attempt to ensure efficiency, are overseen through any number of state oversight agencies. In some states, a centralized governmental board of control is utilized, and in others, broad education departments that coordinate public elementary and secondary education are charged with higher education oversight as well. Aside from state-level governance, many states have put in place attempts to organize and structure publicly subsidized higher education through a controlling mechanism of institutional systems.

Higher education systems range dramatically in their scope and authority, with some simply coordinating legislative requests for information, to others that provide strong regulatory oversight to operations. Perhaps the most clearly defined structure of a university system was spelled out in the California Master Plan for Higher Education, largely attributed to Clark Kerr's leadership. In this plan, community colleges, state regional colleges, and research universities were all assigned a role and scope of program offerings, and for nearly 50 years there was little deviation from this plan. Many other states attempted to retro-fit their own evolving higher education institutions into systems, assigning governance responsibilities to systems offices rather than individual campuses.

The diversity of systems behavior can to some extent be assigned to the authority granted to the systems office by legislative or state control. Through either legislative mandate or gubernatorial directed, institutional autonomy can become subject to state office or the creation of combinations of campuses under a unifying system.

There are many potential assigned benefits to higher education systems that are consistent with notions of public agency efficiency, including greater buying power for universal services (life and health insurance or food and housing services, for example), less redundancy in offering academic programs, greater opportunity for student and faculty mobility among campuses, and a more efficient investment of money into a system that can regulate itself and prevent other spending wastes.

Anecdotal evidence, however, suggests that state university systems may not function as intended. In the case of the California master plan, state regional colleges challenged the authority of research universities to offer doctoral degrees, for example, and ultimately won the right to offer such degrees. In other states, program duplication and an inability to articulate undergraduate programs are identifiable within systems, as campuses behave largely independent of each other with little or no control. Institutional leaders see the system as an additional layer of oversight rather than an advocate for better cost control. As a result, the purpose for conducting the study was to better identify, explain, and understand the perceived benefits and challenges of state governments making use of higher education systems management structures.

Background of the Study

Higher education systems, by design, are regulatory in nature. Designed to maximize efficiencies, they by function necessitate the allocation of resources and restriction of opportunities as well. As a result, systems structures vary by state and region, as well as complexity and functionality (Guri-Rosenblit, Sebkova, & Teichler, 2007). As public entities, however, they often become politically adaptive, meaning that functional authority can give way to political deal-making, resulting in an inability for these systems to be effective or enforce efficiency (Ferlie, Musselin, & Andresani, 2008).

Many institutional systems have approached their inability to manage offerings and services by creating indices of performance measures, and attempting to influence activities based on these measures. Often called 'performance funding,' there is an attempt to force institutions to behave in a certain way and to focus their efforts accordingly. Areas such as graduation rates, retention, and job placement have all been tied to performance funding with modest and inconsistent effects (Fincher, 2015).

Martinez (2013) identified four primary areas of authority for higher education systems: budgeting, collaboration, efficiency and program planning, and articulation. He outlined these areas across the system of higher education in South Dakota, highlighting, for example, that budgeting had been tied to state policy goals that were consistent across the system and system-level mandates for degree course articulation. Martinez noted that in such systems behavior, authority is regulated and empowers those at the highest level working in the system, "yet the state's experience with articulation has proved less than satisfactory to almost all involved" (p. 372).

This notion of coordination has the potential to be most effective when there is a singular system with complete control over the operation of institutional offerings. Buying power for benefits, maintenance, and operational items are also potential benefits of a system. As alluded to (Guri-Rosenblit, Sebkova, & Teichler, 2007; Ferlie, Musselin, & Andresani, 2008), public sector politics have the potential to allow for the evolution of multiple systems and distortions of what a system can or should consist of to be effective. For example, in many states there is a combination of multiple university systems, differing systems for community and two-year colleges, and additional college campuses that are not part of any system. The result is a confusing network of institutions that have a free-market approach to competing for similar students and scarce public resources.

Perhaps the most challenging element of higher education systems is the ability to favor all institutions equally while allowing those with stronger leadership and better resources to flourish. As Birnbaum (1989) noted over 25 years ago, institutional leadership can transform an institution and that frequently an ability to recruit faculty, untapped student populations, and improve a campus in different regards is tied to presidential leadership. If systems, however, are attempting to regulate what an institution does and how it attempts to adapt, there is a greater likelihood that progress will be limited throughout the system. Strong systems do not allow individual campuses the capacity to try new and different things, restricting the already slow approach to change that higher education is known for (Sporn, 1999).

Examples of flagship university campuses fighting with systems administrators and procedures have become increasingly common. Recent examples include the University of Oregon, where a very popular campus president who transformed the institution fought with the system office about priorities, resulting in his firing. The University of California-Davis, the University of Texas, the University of Wisconsin, and Texas A&M University have all had similar, public fights between system and campus officials where the system was seen to be restricting and controlling the individual campus.

The extent that systems and campuses challenge each in some ways can be seen as a good opportunity for open discourse about how best to serve a public good, but, these same challenges can also cause open hostility, damage morale, erode public confidence in higher education, and very importantly, damage the status of the academy with public legislators. An extension of this conflict can be the relationship between the system administrator and campus leader, and the extent to which campus leaders have the discretion from the system to implement policy and make decisions and encourage change on their campuses. This relationship forms the central question addressed in

the study, specifically attempting to identify the benefits and challenges of higher education systems implementation.

Berdahl, Sample, and Rall (2014) made a convincing case that state systems do not always lead to good university governance, and that often these systems hurt the health of the flagship institution. "As institutions have grown larger and more complex, it is more difficult for a single system board to oversee and govern them. And systems emerged to manage growth in the 20th century, the current agenda and public interests are quite different, rendering them less effective if not obsolete" (¶ 3).

Research Methods

To identify the relationships, benefits and problem areas between university system administrations and campus flagships a survey instrument was constructed. The instrument was developed based on the perceived functions of both systems and flagship institutions. The instrument was distributed to a panel of five anonymous system officials and five anonymous campus officials for review and modification. Multiple revisions were made to the instrument, reflecting the expertise of the review panel.

The first section of the survey instrument asked respondents to identify general information about their institutions, including information such as size, setting, and structure.

The second section asked respondents to comment a variety of questions about the relationship between the system and the flagship. The final section of the survey included an open-ended written response opportunity for respondents to comment on either challenges, opportunities, or other areas for growth in the future.

Those individuals included in the study were drawn from 1) a sample of university system administration officials identified through internet based research listings of university systems and 2) officials at flagship campuses or land-grant universities within those systems, identified in the same manner. In most cases, the survey was sent electronically to the Chancellor or President of the campus requesting that the survey be completed or sent to an appropriate person, such as a Chief of Staff or Executive Assistant to the Chancellor. System and campus status was verified by an independent researcher to insure that only systems and flagship/land-grant institutions were being surveyed. The survey was distributed electronically to the sample, with three follow-up requests for participation.

Findings

Using three email reminders, 45 usable responses were received from the 139 institutions identified for participation in the study (32% response rate). Due to the descriptive nature of the study, and the precedence of online survey results, the response rate was deemed acceptable for the purpose of the current study.

In the first section of the survey, participants were asked to answer seven questions describing themselves and their relationship with their university's system office (see Table 1). The majority of respondents had worked on their campus for over a decade (n=29; 64%) and few had worked for a systems office prior to their current job (n=7; 15%). Most of the respondents reported having 6-10 independent campuses in their system (n=31; 69%), and the same percentage (69%) reported that their system included two-year colleges. Nearly all of the respondents indicated that their systems office was located in a different city (n=39; 87%), yet nearly all (88%) indicated daily communication with a system-level official. This communication resulted in 82% of the respondents indicated that they spent at least 30% of their time on system-level business.

In the second section of the survey, participants were asked to rate their agreement on a 1-to-5 Likert-type scale, with 1=Strongly Disagree progressing to 5=Strongly Agree with a series of 13 statements about the possible benefits of a college or university-level system. The overall mean for the 13 statements was 3.81, indicating a Neutral-to-Agree perception of benefits from system-level participation. The most agreement was identified on the items of group purchasing power for supplies (mean 4.21), degree articulation among campuses (mean 4.16), collaborative shared governance (mean 4.10), consistent campus policies (mean 4.00), and administrative structures (mean 4.00). Conversely, respondents agreed least on the system preventing duplication of efforts/degrees (mean 3.22), increasing access for low-income students (mean 3.48), and faculty collaboration (mean 3.50).

In this section of the survey, respondents were also asked to rate their agreement level with 10 different statements, all of which represented challenges of being a member of a university system. The overall mean rating for this set of items was 4.06, suggesting general agreement with the body of challenges. The most agreed upon challenges were competing with peer campuses (mean 4.68), creating individual market-place identity (mean 4.51), attracting legislative support (mean 4.33), and ability to be creative in problem solving (mean 4.24). The survey items in this section with the lowest level of agreement, meaning that they were seen as lesser problems for system participation,

were recruiting students (mean 3.60) and developing new degree programs (mean 3.68).

In the last section of the survey, respondents were provided an opportunity to write, in narrative fashion, any comments that they felt were appropriate for the study. Seven individuals wrote comments, two of which were interest in the study and a request for a copy of the study findings. The other five ranged in their content from support to disappointment in their respective systems. One respondent wrote "I think this study is a good idea. The idea of a system is great, but the practicality of it just doesn't work. There is too much competition between all of us and the president doesn't seem to support collaboration, only competition." Another echoed similar perceptions of the system, commenting "The idea is fine, but unless the system is serious about preventing degree duplication and helping us with group purchasing, they should just stay out of our way." One comment was supportive of the system, noting "it works, just not all the time, but it does keep campus ambition in check."

Data were then arranged to look at three comparisons: (1) for group purchasing between large and small systems, (2) degree articulation responses for systems that included two-year colleges, and (3) role and mission differences for systems that included two-year colleges. For the first analysis, those respondents reporting under 5 campuses (n=6) were compared with those with 11 or more campuses (n=8) regarding group purchasing power, a noted benefit of systems. With an overall combined mean of 4.21, that included 31 mid-sized systems, a t-test was used to compare the small (mean 4.46) and large (mean 3.88) systems, and the two means were found to be significantly different (t-calculated 2.73; t-critical 1.98; alpha = .05).

In the second comparison, the agreement on degree articulation was compared for those systems with two-year colleges (n=31) and those without (n=14). The overall agreement level was 4.21 for all respondents, and 4.13 and 4.18, respectively, for the two groups of respondents. The independent samples t-test did not identify any significant difference between these means (t-cal 1.62; t-crit 2.03; alpha = .05).

The last comparison was between those systems with and without two-year colleges and the challenge of recognizing different roles and missions. The overall mean agreement level of 4.00, with respective mean agreement levels of 4.03 and 3.98 respectively. Again, no significant differences were identified (t-cal 1.21; t-crit 3.01; alpha = .05).

Conclusion and Discussion

This study addresses a somewhat growingly controversial issue: should states organize their higher education campuses and offerings into a centralized system. News reports and existing literature suggest that organized, centralized programmatic offerings hold a higher level of efficiency in spending public resources, but the overarching sentiment seems to be one of free-market supply and demand, where competition between public agencies will seemingly result in a 'survival of the fittest' institutions. The response rate for the study, 32%, is not particularly surprising and may actually be quite good when considering the potential politically sensitive issue of centralization.

Regarding the respondents, the nature of the survey distribution resulted in a high number of individuals with experience or the practice of working with the systems office; perhaps an assumption that was to be accepted for conducting the study. These individuals, however, reported significant amounts of their time were committed to working with systems offices and officials, with nearly all respondents (88%) reporting daily communication with the systems office and nearly the same number of respondents (82%) indicating that they spent over a third of their time on systems office requests. This means that systems offices are highly involved in individual campus work, which makes the results of the "better" and "challenging" sections of the survey somewhat problematic. And, the study points to strong challenges with system and campus administrations and further calls to question the effectiveness of large university systems.

With a strong involvement of systems offices in individual campus' work, there were relatively few areas where the respondents indicated that their campus benefited. There was agreement with five of the 13 "better" statements, with the highest levels of agreement being related to group buying power and degree articulation. The better degree articulation among individual campuses of a system is not insignificant; this finding shows that institutions see a benefit from systems-level membership that can clearly benefit a student's mobility throughout an academic system. The other three statements that had a mean rating above 4.0 (agreement) were all structural and office based, including better shared governance collaboration (presumably actions such as faculty senate presidents throughout a system meeting on a regular basis), consistent campus policies, and administrative structures (such as a consistent nomenclature of titles on campus). And although these all are seen as good outcomes of a system, they were not perceived to result in less degree duplication or improving access for low income students.

There was also strong agreement that system-level membership did not result in less competition among campuses, better campus identity, legislative support, or creative problem solving. These perceptions were somewhat contradictory, as the findings suggest that the system does not use its authority to align individual campus priorities, such as declaring a liberal arts campus, a science and technology campus, etc., but that it does inject itself into how campuses can solve problems or deal with difficult issues on separate campuses.

These findings seem to reinforce the idea that higher education systems, and indeed state coordinating bodies, seem to want their organization to be all things to all constituents. They seem to want to control what campuses do, but also want to leave campuses alone to make their own decisions. They want to align administrative structures, but they are not able to help campuses have their own methods for problem solving. The inefficiencies of higher education systems will continue to lead to poor legislative support and growing public scrutiny of higher education, and higher education will in turn continue to look to market itself as a great private versus public good. Without stronger state and national public policy leadership, higher education's future is at risk.

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Table 1 *Profile of Respondents* *(N=45)*		
Characteristic	*n*	*%*
Length of service on campus		
Less than 5 years	8	18%
6-Ø years	8	18
More than 1Ø years	29	64
Ever worked in a Systems office		
Yes	7	15
No	38	84
Number of individual campuses in system		
Under 5	6	13
6-1Ø	31	69
11 or more	8	18
Are there 2-year colleges in your system		
Yes	31	69
No	14	31
Location of Systems office		
On my campus	2	4
Same city/not on my campus	4	8
In a different city	39	87
How often do you engage with a system official		
Daily	4Ø	88
Weekly	3	6
Monthly	2	4
Rarely	Ø	Ø
How much of your time do you spend on System business		
1Ø% or less	4	*8*
2Ø-3Ø%	4	*8*
3Ø-4Ø%	27	*60*
4Ø-5Ø%	8	*18*
More than 5Ø%	2	*4*

Table 2
Perceived Systems Benefits

Characteristic	Mean	Range
Because of our institutional system, we have better:		
Group purchasing power for supplies	4.21	.5232
Degree articulation among campuses	4.16	.8293
Collaborative shared governance	4.10	.5329
Consistent campus policies	4.00	1.0030
Administrative structures	4.00	.6646
Better efficiencies for degree offerings	3.99	.8399
Standardized tenure/promotion guidelines	3.89	.7146
Human resource benefits	3.88	.7389
Legislative lobbying efforts	3.62	1.1110
Access for high achieving students	3.55	.7041
Faculty collaboration	3.50	1.0018
Increasing access for low income students	3.48	.6777
Less duplication of efforts/degrees	3.22	.5855
Individualizing HR campus needs	3.88	.5325
Flexibility to respond to regional needs	3.75	.6633
Because of our institutional system, we have these challenges:		
Competing with our peer campuses	4.68	.4919
Creating individual market-place identity	4.51	.6201
Attracting legislative support	4.33	.6222
Ability to be creative in problem solving	4.24	.7748
Recruiting leaders/administrators	4.01	.6598
Recognizing different roles/missions	4.00	.7891
Developing new degree programs	3.68	.7007
Recruiting students	3.60	.8304

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Stakeholder Loyalty in Mergers: An Application of Theory of Planned Behavior

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ABSTRACT

This research employs the Theory of Planned Behavior as a theoretical foundation to test the loyalty of employees and customers to remain with a company during a merger behavioral intention. The hypothesized model proposed that communication, perceived control, and subjective norm are associated with attitude, and perceived behavioral control and attitude are associated with intended behavior. The data and hypotheses were examined using structural equation modeling (SEM). Results showed that communication, subjective norm, were positively related to attitude and attitude is positively related to behavioral intention. Perceived control was negatively related to attitude and behavioral intention. Findings of this study demonstrate that the proposed modification of the Theory of Planned Behavior is applicable in measuring stakeholders' loyalty to remain with an organization during a merger

INTRODUCTION

This study applies and extends the Theory of Planned Behavior (TPB; Ajzen, 1991; Fishbein & Ajzen, 1975) to identify an additional factor and how the factors interact to influence employee and customer loyalty to leave an organization during a merger. The TPB (Ajzen, 1991; Fishbein & Ajzen, 1975) theorizes that an individual's intention to engage in a behavior is shaped by his or her attitudes toward the behavior, subjective norms, and perceived behavioral control.

This paper seeks to answer the research question "What are the factors influencing employees and customers to remain loyal and not leave an organization during a merger" There are three objectives of the paper: (1) to examine the mediating effect of attitude on organizational loyalty, (2) test the role of communication in the relationship between TPB components, and (3) investigate the effects of communication, norms, and perceived behavioral control on attitudes toward organizational loyalty during a merger. The study tests whether a modified model of the TPB can be applied to the context of organizational loyalty during a merger. This model revision adds communication to the original model and identifies how components interact in the model. The addition of communication shows a difference on how the components interact but still predicts behavioral intention.

LITERATURE REVIEW

The Theory of Planned Behavior Model

The Theory of Reasoned Action (TRA) suggests that the conception of behavioral intention refers to the relationship between attitude and behavior and set forth the

concept of as a subsequent predictor of intention. In the theory, attitude refers to the person's overall assessment of carrying out the behavior, subjective norm refers to perceived social pressure from significant others to perform, or not perform a behavior. "The Theory of Planned Behavior (TPB) added the concept of perceived behavioral control to the TRA as a third predictor of intention" (Rise, Sheeran & Huhhelberg, 2010). The perceived effortlessness or complexity of performing a behavior is recognized as perceived behavioral control. Therefore, according to the Theory of Planned Behavior, the more positive your attitude, the stronger your subjective norms are, and the more the perceived control are over the behavior, the more likely that a person will perform the proposed behavior. Basically, if a person has the will or possess the control over how they carry out an action, the stronger the intention to perform a behavior, the more likely it is that a person will perform a proposed behavior.

The Theory of Planned Behavior model is an influence on both direct and indirect behaviors byway of influencing behavioral intentions. This has been supported by numerous reviews and meta-analyses conclude that the TPB is an effective theory (Truong, 2009, Armitage & Connor, 2001). There have also been many studies done that used technological adaptation to predict behavioral intentions through self-reported form organizational and individual evaluations (Brown & Venkatesh 2005, Chau & Hu 2002, Chau & Hu 2001, Gentry & Calantone 2002, Venkatesh & Brown 2001, Pedersen 2005, Venkatesh et al. 2003).

According to the TPB, (Ajzen, 1991; Fishbein & Ajzen, 1985), an individual's attitude toward a particular behavior is one of the most significant predictors of both his/her intention to engage in that behavior and the actual behavior. The attitude toward the behavior is defined as the degree to which the individual has a positive evaluation of the behavior. Numerous studies have shown Theory Planned Behavior to offer sufficient assumption to predict performance of a behavior from intentions and from perceived behavioral control. The TPB does permit prediction of intentions and behaviors. Fundamentally, it is ultimately a human social behavior driven by implicit attitudes (Greenwald & Banaji, 1995).

Even though TPB emphasizes the controlled aspects of human information processing and decision-making, it is primarily concerned with behaviors that are goal driven and steered by deliberate self-regulatory processes (Ajzen, 2011). According to Geraerts, even if inaccurate, partial or illogical, this theory produces attitudes, intentions and behaviors that are consistent with these beliefs (2008). Several studies have determined that the attitudes towards perceived behaviors and controlled beliefs provide the cognitive foundation for attitude predictors, subjective norms and perceived control mechanisms, respectively.

CONCEPTUAL FRAMEWORK

This model theorizes that norms, communication, and control influence attitude and attitude influences intended behavior of loyalty to an organization during a merger. In this case the intended behavior is to either stay or leave the organization. A new variation on the TPB model is used to examine the mediating effect of attitude on organizational loyalty, test the role of communication in the relationship between TPB components, and investigate the effects of communication, norms, and perceived behavioral control on employee and customers' attitudes toward organizational loyalty during a merger. The analysis measures behavioral intention predicting actual behavior.

The literature review did not identify any previous research using the TPB model to predict merger behavior. The model tested in this paper adds communication as a variable and shows the TPB components as influencing attitude and intended behavior directly. The model reflects the TPA basis that attitude produces behavior. There are five hypotheses tested in the model.

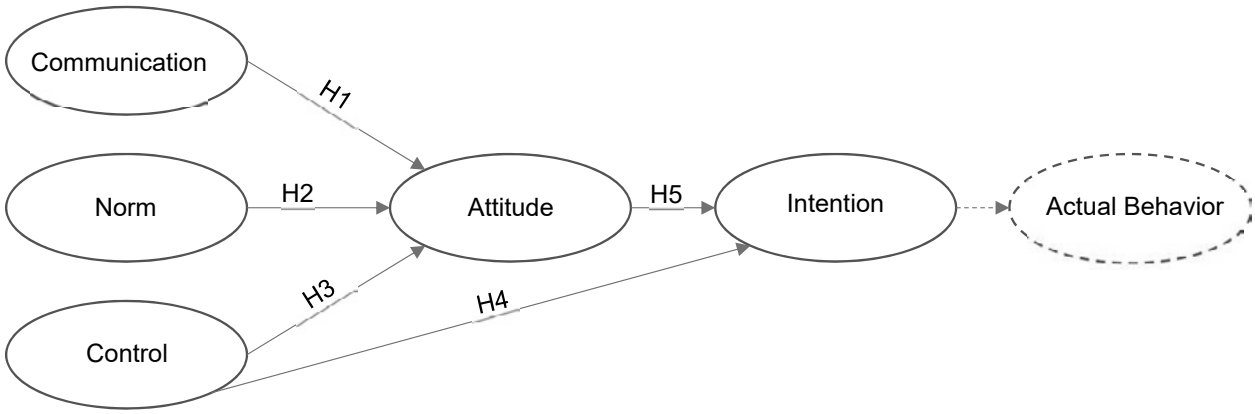
Communication in organizations is situated in time and space in the context of communicative events. Communicative events are collections of oral and written statements and speech acts (Cooren, 2001; Cooren & Taylor, 1997; Searle, 1969) that in turn produces an overall speech act (Van Dijk, 1997). For example, a trading transaction coordinating buying and selling, an employee review congratulating an accomplishment, and a speech inviting new types of action are all communicative events. The question is how multiple communication processes, which are communicative events, effect attitudes toward organizational loyalty in mergers.

This proposed model shows communication as a factor influencing attitude. If organizational communication is perceived as informative and interactive, it has a positive effect on the attitude to remain loyal to the organization. This is the basis for hypothesis 1 and the modification to the TPB model. Based on the ideas above, we propose that:

H1: Communication is positively related to attitude to remain loyal during a merger.

Norms are how the perceived opinions of others influence the way a person views a situation. Significant others are important to an individual, including parents, siblings, close friends, relatives, subordinates, superiors, and business partners (Hee, 2000). Subjective norms measure

Figure 1
The Theory of Planed Behavior Model



social influence on behaviors (Fishbein & Ajzen, 1975) and perceived social pressure. The more frequent and intense the communication is between an individual and important other; the more likely an individual will be to adopt their ideas and beliefs (Leenders, 2002). Subjective norm is determined by the extent to which an individual wants to comply with what others think (Ajzen & Fishebin, 1980). If loyalty to an organization after a merger is a positive behavior to the person's significant others, and an individual's motivation to comply with what significant (Cheng et al., 2005) others is high, an individual has a stronger intention to remain loyal. Other studies have demonstrated that behaviors are highly influenced by referents (Bearden & Etzel, 1991; Conner & Sparks, 1996). If the behavior is socially accepted, stakeholders may have the intention to remain loyal. On the contrary, if remaining loyal is negative behavior to the important others, an individual may try to avoid the behavior because it is not well accepted.

This proposed model shows norms as a factor influencing attitude. If organizational norms are perceived as acceptable, it has a positive effect on the attitude to remain loyal to the organization. This is the basis for hypothesis 2 below and the modification to the TPB model.

H2: Subjective norms are positively related to attitude to remain loyal during a merger.

Behavioral control measures how well a person can execute the actions required to deal with specific situations (Ajzen, 1991). It reflects the perception of factors that may facilitate or impede the performance of an act, such as the availability of time and money or the possession of required skills and the person's self-confidence in the ability to perform the act (Taylor & Todd, 1995). Conner and Abraham (2001) shared the same view that a person's behavior is strongly influenced by confidence in the ability to perform the intended behavior.

When people believe that they have little control over performing a behavior, their intentions to perform the behavior will be lower. Researchers of consumer complaining behavior found that an individual's perceived difficulties, the costs of complaint, and consumer's alienation to the complaining procedures, has an impact on his or her complaining behavior (see also Singh &Wilkes, 1996; Su & Bowen, 2001). In this case, stakeholders surveyed indicated that their feelings were strongly related to both attitude and intended behavior. The influence on both attitude and intended behavior indicate how strongly control plays a role in this situation. In this instance, control follows both the original TPB model that relates control directly to intended behavior and the new model where it influences attitude which in turn predicts intended behavior. The new proposed model retains the TPB link from control to intended behavior and adds a link from control to attitude. Consistent with the ideas above, we propose two hypotheses below to demonstrate the effect of control on loyalty to stay with an organization during a merger:

H3: Perceived behavioral control is positively related to attitude to not remain loyal during a merger.

H4: Perceived behavioral control is positively related to intended behavior to not remain loyal during a merger.

Fishbein's and Ajzen (1980) Theory of Reasoned Action is an excellent model of the psychological processes that explain observed links between attitudes and behaviors.

The Theory of Reasoned Action suggests that the cause of behavior is a person's intention to engage in the behavior. The issue of how an attitude is transformed into action is resolved by adding another psychological event, the formation of an intention. Intention is explained to be the person's motivation to exert effort to carry out a behavior. High correlations between attitudes and overt behaviors can be produced by aggregating several behaviors to create a measure that corresponds to the attitude measure. Accordingly, we propose that:

H5: Attitude is positively related to the intended behavior in organizational loyalty during a merger.

An important characteristic of Fishbein and Ajzen's approach to attitudes is they stress the need for specificity between attitude and behavior when trying to predict a behavior. For example, most people say they have a positive attitude toward "protecting the environment," but such an attitude will have a small statistical or substantive relationship with the behavior "recycling aluminum cans at my office." To understand and predict the specific behavior, one needs to measure attitude towards "recycling aluminum cans at my office."

METHODOLOGY

Sample

The data analyzed in this study was collected from two colleges of business of two regional campuses in the same state university system before and after their institutional merger. We surveyed different stakeholders including students, faculty, administrators and staff members.

We applied a quota sampling (Carroll & Teo, 1996) rationale to gain an adequate number of respondents for both students and faculty members across the two campuses. The main advantages of this sampling technique lay in the speed of sampling implementation, relatively low cost and high effectiveness to reach eligible respondents. The study uses surveys designed to measure issues specific to each stakeholder group. The faculty group is defined as full time faculty including tenured, tenure track, and full-time lecturers. For the purposes of this study adjunct faculty were excluded. The majority of the faculty are Ph.D. qualified. The student group included all registered students, both undergraduate and graduate, coded as College of Business majors. These are primarily commuter students at both institutions.

We used a two-wave cross-sectional survey as the instrument for data collection. The surveys were administered via Qualtrics. Each stakeholder group was sent a link to access their surveys pre- and post- the merger of the two campuses. The responses were completely anonymous and kept confidential.

Measures

We created multi-item indicators and dummy variables to measure the key constructs in the proposed research model—norm, perceive control, attitude toward institutional merger, communication and intended loyalty behavior. We developed the format and wording for each of the items based on the rationale applied by Ajzen (1991) and Cordano and Frieze (2000), and adapt them to the current research settings. Thus five-point scales instead of seven-point ones were applied. We coded the items for the scale items (e.g. -2, strongly disapprove, to 2, strongly approve) and dummy variables (e.g. -1, no, 1, yes).

Norms for merger. Questions were asked about how the stakeholders felt about university norms regarding the merger, their effects on the composition of employee and customer, the variety of cultures and traditions, and if it would add value to the university culture. The content of our norm-items focused on not only the existing regulations in the procedure of an institutional merger, but also the subjective routines perceived by stakeholders.

Attitude toward merger. We asked questions regarding the stakeholders' thoughts about the merger and merger processes. A five-point scale was applied to ask stakeholders whether they approve or disapprove the merger between the two academic institutions, and to what extent they agreed with the process of merger.

Perceived control. Questions were asked about specific possible changing aspects of the stakeholders' position and if they thought they had influence on these possible changes. In measuring this construct, we also looked at the degree of spontaneous actions a person would like to conduct during the merger process. A sample question was, "would you like to be more involved in helping with the transition?"

Communication. To measure this construct, we asked about communication processes regarding the merger and the stakeholders' opinions about the communication during the merger. A sample question was, "Has information about the merger been clearly communicated to you?"

Intended loyalty behavior. Two questions were asked specifically about the stakeholders' intent to leave the organization and feeling regarding loyalty to the new organization. Accordingly, we adopted two dummy variables for this construct. Given the nature of the questions, we

reverse-scored the two items for each of the two behavior variables.

To accommodate the specific setting of this study, we also created two dummy control variables to measure the identity of respondents (student vs. non-student), and timing of response (pre-merger vs. post-merger).

ANALYSIS AND RESULTS

The pre-merger survey was sent to respondents at both campuses that included 50 non-student members (faculty/staff/administrators), and 1959 students. Response rates for each stakeholder group were 40%, and 11.6% respectively. The post-merger survey was received by 47 non-student members, and 1668 students. Response rates for each stakeholder group were 51%, and 8% respectively. To fully meet the statistical analysis requirement, we pooled the pre- and post-merger data, and eventually create a dataset that included 434 observations (362 students, 72 non-student's respondents) after the removal of incomplete and missing data.

Measurement Model Descriptive

Given the latent-indicator nature of this study, we applied structural equation modeling (SEM) as the primary tool for data analysis. The most significant advantage of SEM is that the confirmatory factor analysis leading to a measurement model that is incorporate into the structural analysis (Cordano & Frieze, 2000). We used 18 observed variables and five factors to perform a structural model analysis with STATA 14 software.

The initial measurement model included all the 18 indicator items for the five concerned latent variables. The results for the confirmatory factor analysis indicated poor data fitness. The chi-square statistic was significant (χ^2 = 647.94, df= 125), and no other fit indexes appeared to be closed to the preferred threshold values. We hence examined the modification indexes and indicator reliabilities to select changes for the initial measurement model, which was suggested by previous studies (e.g. Denison et al., 1996). Based on the results of the modification index, we dropped off three indicators but did not change any covariance paths. The measurement model fit data marginally well after revision. Table 1 lists several key model fit indexes including Chi-square value, comparative fit index (CFI), root mean squared error of approximation (RMSEA), standardized root mean squared residual (SRMR) and the coefficient of determination (CD). Unfortunately, except SRMR and CD indicate marginally goodness-of-fit, the other indexes do not support an excellent model fit.

Table 2 provides the descriptive results of the variables in the structural model. To further validate the measurement instruments, we conducted convergent validity and discriminant validity tests respectively. In discriminant validity tests, we found no confidence interval for any factor correlation included 1.0, suggesting that all factors discriminable differed from one another (Hom & Kinicki, 2001). We tested the convergent validity by observing factor loadings and the squared multiple correlations of the items, which fell in the range between 36%-81%, confirming convergent validity (Lin & Hsieh, 2011).

Table 1
Goodness-of-Fit Results for Measurement and Structural Models

	χ^2	df	p	CFI	RMSEA	SRMR	CD
Measurement model	347.65	80	0.001	0.831	0.088	0.072	0.993
Structural model	348.96	82	0.001	0.832	0.087	0.072	0.989

Table 2
Means, Standard Deviations, Correlations and Reliability Estimates

Variable	Mean	s.d.	Reliability	1	2	3	4	5
1 Norm	1.40e-09	0.787	0.70	1.0000				
2 Control	-9.39e-11	0.215	0.69	-0.4662***	1.0000			
3 Communication	6.00e-10	0.658	0.74	0.3822***	-0.0884	1.0000		
4 Attitude	-8.48e-10	0.716	0.72	0.7930***	-0.6762***	0.6169***	1.0000	
5 Behavior	1.29e-09	0.464	0.71	0.6647***	-0.8790***	0.3831***	0.8956***	1.0000
***** : p < 0.001**								

Support for Hypotheses

The results of this study generally support the extended model we developed. Hypothesis 1 predicts a positive relationship between communication and attitude to loyalty during a merger. The communication variable produced a standardized path coefficient of .406 (p< .001), which supported Hypothesis 1. Hypothesis 2 predicts a positive relationship between subjective norms and stakeholders' loyalty attitude. Again, the results supported this hypothesis. A significant and positive relationship (coefficient = .402, p < .001) does exist between norms and attitude to loyalty during a merger.

Hypothesis 3 and hypothesis 4 predict that perceived behavioral control is positively related to disloyalty attitude and intended disloyal behavior during a merger. Both of the hypotheses were supported. As shown in Figure 4, the path coefficient for the relationship between control and attitude is negative and significant (-1.18, p < .001), and the relationship between control and intended behavior yielded a path coefficient of -0.955 (p < .001). Because we measure attitude and intended behavior as attitude and intention to loyalty during a merger, negative coefficients indicate that H3 and H4 are supported.

Finally, Hypothesis 5 predicts a positive relationship between attitude and intended behavior in loyalty during a merger. We found support for this hypothesis, with a significant and positive path coefficient of 0.362 (p < .001). This is consistent with the findings of previous studies (e.g. Ajzen, 1991, Cordano &Frieze, 2000).

DISCUSSION AND IMPLICATIONS

This study applies and extends the original model of the Theory of Planned Behavior (Ajzen, 1991; Fishbein & Ajzen, 1975) to investigate the factors that influence stakeholders' attitude and intended behavior to remain loyalty to an organization during a merger process. Our findings suggest three key exogenous factors that have important effects on shaping the stakeholders' loyalty attitude and intended behavior. These three factors are communication, subjective norms and perceived control.

While subjective norms and perceived control have been well studied in previous research (Ajzen, 1991; Greenslade & White, 2005; Carpenter & Reimers, 2005) on planned behavior, few of the existing studies have tested the effects of norms and control on forming attitude. The results of this study suggest that subjective norms and perceived control play remarkable roles in shaping key stakeholders' attitude toward remaining loyal when a significant change takes place in an organization, for example, merging with another organization.

Instead of treating attitude as an ordinary exogenous variable, in our model we test the mediating effects of attitude on influencing the intended behavior of being loyal during a merger process. Our findings suggest that attitude mediate between key exogenous factors (norms, control and communication) and the formation of intention to remaining loyalty during a merger. This study revealed the core roles of attitude in determining the intended and actual behavior to loyalty during an organizational change.

In this study we added in a new factor—communication to our research framework. Our findings suggest that the effectiveness of communication between different levels in an organization directly influenced the stakeholders' attitude toward remaining loyal during a merger process. This is consistent with the results of previous studies on the roles of corporate communication during the process of organizational changes (Nelissen & van Selm, 2008; Maheshwari & Vohra, 2015). Consequently, the removal of communication barriers and creation of effective communication channels and mechanisms become the keys to improve stakeholders' loyalty to the new organization during a merger.

Finally, the findings of this study suggest the existence of a direct and an indirect relationship between perceived control and intended behavior to remaining loyal during a merger. We gained empirical evidence that perceived control negatively predict the magnitude of loyalty attitude and intended loyal behavior during a merger process. One of the potential explanation could be related to the frustration experienced by the stakeholders, particularly when they attempt to enhance performance during a merger. In such instances, limited authority or self-controllability would stimulate greater desire for increased intention to remaining loyal. This rationale has been suggested by previous studies, such as the one contributed by Cordano and Frieze (2000).

The theoretical implications of this study are twofold. First, this study extended the original TPB model by accommodating it to a new research context, the consolidation of Higher Education. The unique features of our findings to a large extent are related to this special research setting, which has not been well investigated by previous studies. Our findings suggest that due to the special features of higher educational institutions, the TPB model might need to be modified to adapt to the information-transparency requirement and knowledge-intensive nature of this industry. This means different avenues for future research. Second, in this study we particularly examined the role of communication and mediating effects of attitude in determining the intended loyalty behavior during a merger process. Alternative hypotheses can be developed to investigate the potential moderating

effects of those factors, which create more opportunities to further enhance and enrich the application of the TPB model.

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A Regional Business School's Approach to Demonstrating and Documenting Engagement, Innovation, and Impact Under the 2013 AACSB International Accreditation Standards

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ABSTRACT

Many significant changes resulted from the new 2013 AACSB International Accreditation Standards. The new standards place considerable emphasis on engagement, innovation, and impact. In addition, business schools are expected to assess and demonstrate the impact of intellectual contributions. This paper presents and describes the approach used by a regional business school to demonstrate and document the impact of faculty intellectual contributions for their 2018 Continuous Improvement Review. In addition, the system used by the business school to collect faculty accomplishments involving engagement, innovation, and impact is presented. Our intent is to offer this information to assist other schools in developing their own approach consistent, with their mission.

Literature Review

According to the 2013 Association to Advance Collegiate Schools of Business (AACSB) Standards, in today's increasingly dynamic environment, business schools must respond to the business world's changing needs by providing relevant knowledge and skills to the stakeholders they serve. They must innovate and develop new programs, curricula and courses. Also, declining public support for higher education has placed business schools under additional economic pressure that has significantly affected teaching, research, and the future of faculty responsibilities. Accordingly, accreditation standards must evolve to not only validate quality management education and impactful research, but also provide support for change in business programs. The AACSB recognizes that a wide variety of missions and strategies can lead to quality and encourages diverse paths to achieving high quality in management education. AACSB accreditation requires evidence of continuous quality improvement involving these vital areas: engagement, innovation, and impact. Effective quality management education is achieved with

an appropriate "balance" or "intersection" of academic and professional engagement. The standards challenge business schools to fulfill their mission and strive for continuous improvement through innovation which involves creativity, experimentation, or entrepreneurial pursuits. Impact not only serves to validate quality management education, and research but also has a broader meaning in that as they execute their missions, business schools should "make a difference" in business and society as well as in the global community of business schools and management education. (AACSB, 2016)

Traditionally, business schools evaluate faculty intellectual contributions for tenure, promotion, and AACSB faculty qualifications status by counting journal articles and the number of times articles are cited by other journal articles. Many schools recognize and reward articles published in top tier journals. This narrow focus is problematic for more than one reason.

> Specifically, the current approach does a poor job of measuring what kind of impact faculty have on their students, their institutions, and the broader community through their research, teaching and service. We must be accountable for the impact we make. Fundamentally, we add value through all the practices that constitute our scholarship. What matters to faculty is a recognition that what we do makes a difference, and therefore needs to be accounted for in a way that reflects the difference we make. There has been little agreement about what impact is, how it's demonstrated, and how it can be measured. There is an urgent need to study these impact case studies to discover common perspectives and develop a coherent framework for capturing impact in tangible and intangible ways. Broadening the definition of scholarly output allows faculty to show impact through all of their activities. We need to actively demonstrate our worth, so we can safeguard our role in society. We begin by demonstrating how our scholarship has impact. (Shinn, 2014).

Aguinus, Shapero, Antonacopoulou, and Cummings (2014) offer an alternative approach to counting citations as a measure of impact, referred to as a "pluralist" conceptualization of scholarly impact. Their approach broadens the meaning of impact to include multiple stakeholders and multiple measures of impact. They maintain that a single type of measure of impact, such as citations, does not capture the multidimensional nature of research. The authors maintain that scholarly impact needs to account for multiple stakeholders such as other researchers, university students, corporate practitioners, nongovernmental organizations, government policy makers, and society in general. Also, their proposed "pluralist" conceptualization of scholarly impact includes multiple measures since impact comes in different forms. For example, a scholar can affect organizational practices through teaching executives or writing practitioner-oriented articles, consulting, serving as an expert witness in high profile cases, media appearances, or by spending a sabbatical in a business practice. They argue that the adoption of a "pluralist" conceptualization of scholarly impact can increase motivation for engaged scholarship that is more conducive to actionable knowledge.

Van Slyke, Yordy and Wright (2015) point out how a business school, in preparing for its 2014 CIR, made adjustments in its approach and requirements regarding intellectual contributions. In reviewing its mission statement, the school determined that to fulfil its purpose, the intellectual contributions needed to maintain a broad focus. It now recognizes and values a broad range of intellectual contributions, including case studies, textbooks, and practitioner articles. The new system now encourages faculty to focus on generating a wider range of impactful, quality research and recognizes multidisciplinary journals. It was made clear to faculty that contributions that go beyond the traditional academic indicators of journal quality, such as best paper awards, and leadership in academic organizations are valued. Also, the annual review process asks faculty to submit narratives that describe the impact of their intellectual contributions. The narratives are not used as a basis for the annual review, but instead, to demonstrate the impact of the intellectual contributions to the CIR team. In addition, the narratives allow the faculty the opportunity to describe how their research supports their mission statement and contributes to the school's overall impact.

The approach taken in the research by Van Slyke et al. (2015) as well as the work by Aguinus et al. (2014) represents a significant improvement in the process of evaluating and documenting the impact of intellectual contributions. A broader perspective recognizes that faculty also add value and "make a difference" through the other AACSB Standards' pillars, engagement and innovation. The research by Holmes, Wilkins, and Zhang (2013) extends and develops the process further to encompass engagement and innovation. Holmes et al. (2013) outline one business school's experience in developing and implementing a comprehensive approach to track their faculty's activities and gather information related to engagement, innovation, and impact. For purposes of illustration, Holmes and her co-authors include a sample report populated with hypothetical faculty data and experiences.

Impact of Faculty Intellectual Contributions

Even though SBI representatives attended the AACSB International Continuous Improvement Review Seminar in Miami, FL in January 2016, many questions remained and issues were unresolved as to the process for demonstrating the impact of faculty intellectual contributions. Discussions with faculty and administrators of other business schools took place regarding this issue. Likewise, we received inquiries in the form of survey questionnaires, emails, and telephone calls regarding our approach to the documentation of the impact of faculty intellectual contributions. The approach that we ultimately adopted and presented herein, is the result of many collaborations, discussions, and reviews.

The Relevant Standard

AACSB Standard #2: The school produces high-quality intellectual contributions that are consistent with its mission, expected outcomes, and strategies and that impact the theory, practice, and teaching of business and management. (INTELLECTUAL CONTRIUBTIONS, IMPACT, AND ALIGNMENT WITH MISSION)

Standard #2 considers the intellectual contributions the school supports and produces as a whole and the differences those contributions have made. In the context of Standard #2, schools are expected to be accountable for using inputs and achieving desired outcomes, consistent with their mission. Accordingly, faculty are expected to produce intellectual contributions that have an impact on theory, teaching, and practice. Also, schools are expected to demonstrate that the business school is "making a difference in the business world and society as well as its business programs and students." Based on the section "Guidance for Documentation" for Standard #2, "schools are to provide a portfolio of evidence including qualitative and quantitative measures that summarize the portfolio of intellectual contributions over the most recent five year review period." The peer-review team (PRT) will also be interested in reviewing evidence to allow for an assessment of the portfolio's alignment with the school's mission.

Particularly beneficial to the SBI was the statement provided in Part D of AACSB Table 2-1: Intellectual Contributions included in Standard #2. The statement indicates that in providing evidence documenting that the school's intellectual contributions have had an impact on the theory, practice, and management, "the school is encouraged to include qualitative descriptions and quantitative metrics and to summarize the information in tabular format whenever possible to demonstrate impact." Our qualitative documentation included a description of the types and quality of intellectual contributions expected to be produced by our faculty, along with some examples of the "outstanding" accomplishments of our faculty's intellectual contributions. This included peer-reviewed journal (PRJ) articles in journals with low acceptance rates and high citation counts, widely adopted published textbooks, editorships, leadership positions in academic or professional organizations, awards/recognitions, research accomplishments co-authored with students, consulting reports resulting in PRJ articles or legal rulings, successes of graduates, and significant applications of teaching related research.

We found Appendix I of the 2017 AACSB Standards entitled "Examples of Impact Metrics in Support of Documentation" particularly helpful in developing the quantitative evidence for documenting the impact of faculty intellectual contributions. Eight broad categories of possible impact indicators were provided; seven were pertinent to the SBI. The seven broad categories of impact metrics utilized by the SBI included: mission alignment, academic impact, teaching/instructional impact, education at bachelor's and master's level, practice/community impact, executive education impact, and research center impact. Appendix A provides examples utilized to document the impact of our faculty accomplishments from the seven categories of impact metrics.

While Continuous Improvement Reviews span five years, documentation of the impact of intellectual contributions allows the use of evidence that extends beyond five years, as indicated in the footnote for AACSB Table 2-1 Part D of the Standards that states: "evidence of impact may stem from intellectual contributions produced beyond the five year AACSB accreditation review period." The SBI used Table I in Appendix B to present quantitative metrics to demonstrate the impact of intellectual contributions produced by faculty of the Finance, Economics, and Accounting Department (FEA). Table I shows actual quantitative metrics data for the SBI (faculty member names are fictitious). For example, faculty member Camp produced two intellectual contributions impacting "Mission Alignment" of the SBI, two intellectual contributions having an "Academic Impact" and four intellectual contributions with a "Practice/Community Impact" for 2013-2017 and prior years. In addition, we prepared a "Faculty Intellectual Contribution Impact Report" on each faculty member to provide supporting documentation for the impact metrics data presented in Table I of Appendix B. These reports were prepared for each faculty member using information obtained from resumes, Continuous Improvement Review reports from prior AACSB reviews, and annual faculty performance reviews. Appendix C shows a sample of some of the actual entries from

"Faculty Intellectual Contribution Impact Reports" for several selected SBI faculty (faculty member names are fictitious). The entries provide supporting documentation and additional detailed information for the quantitative impact metrics data shown in Table I of Appendix B.

Mission Alignment

To illustrate the use of an entry from the Faculty Intellectual Contribution Impact Reports of Appendix C, faculty member Bates produced a peer-reviewed journal article that depicted one component of our mission statement, "social responsibility. Likewise, other similar examples for SBI faculty's intellectual contributions and focus areas valued by the SBI's mission include: Bates-peer-reviewed journal article (global); Cash-book review (diversity); Lindsey-law review article (ethics); Swift-technical report (regional economic development); and Ziegler-peer-reviewed journal article (information technology).

Academic Impact

Sample faculty entries of Appendix C providing supporting documentation for quantitative metrics in Table I (of Appendix B) include faculty member Camp who produced a peer-reviewed journal article cited by 135 other author's works. Professor Harper published a reference book for practicing attorneys that has been cited in 25 articles. Faculty member Lindsey produced law review articles published in "highly recognized leading journals." Also, Professor Lindsey has served as "staff editor," "articles editor," and "manuscript reviewer" for several leading law journals. Faculty member Zeigler received a "best paper award" for a published article. Faculty member Collins received an "appointment to a leadership position in an academic association," and Dr. Collins serves as "editor" of a peer-reviewed journal.

Teaching/Instructional Impact

Faculty entries from Appendix C include faculty member Cash who produced a peer-reviewed journal article that focused on "teaching." Faculty member Camp completed a certified online instructor course that represented "certification aimed at improving teaching." Faculty member Swift earned a Certified Financial Planner (CFP®) certification and completed continuing education courses that represent the completion of "courses/certifications aimed at improving teaching." Professor Harper authored a "widely adopted book for practitioner attorneys aimed directly at improving practice" that is considered "one of the best short treatise on the subject in the nation" and is "widely used by practicing attorneys and law students."

Bachelor's/Master's-Level Educational Impact

Entries from Appendix C based on faculty intellectual contributions include faculty member Cash who provided "mentorship" to one of his students working on a research project that resulted in a peer-reviewed publication.

Practice/Community Impact

Faculty entries from Appendix C include Dr. Camp who published a peer-reviewed article in a practitioner journal "aimed directly at improving management expertise and practice." Professor Collins received a request to provide "expertise for a consulting project" in which he served as an expert witness in a federal court case. Also, Professor Bates authored a "consulting report" consisting of an economic impact study for purposes of regional economic development. Professor Swift received an invitation to "serve as an expert on roundtables/panel discussions" by being a permanent member of a virtual community of financial planning academicians / practitioners. Also, Dr. Ziegler received an invitation to serve as an expert on policy formulation by being invited to be a member of the JSU Center for Information Security and Assurance.

Executive Education Impact

Regarding entries from Appendix C, faculty member Swift was involved as a participant, consistent with the teaching mission of the SBI, by developing and teaching a 12-hour seminar on finance and accounting every fall and spring over five years for upper management of a regional organization.

Research Center Impact

Finally, as to entries from Appendix C providing documentation for "Research Center Impact" through "Center Research Projects," Mrs. Amy Allen, Account Executive, JSU Center for Economic Development directs and coordinates a recurring monthly project. Mrs. Allen serves as Assistant Editor of Economic Update (In-House Monthly Newsletter) that provides on-going analysis of economic indicators across a ten-county area of north central Alabama to 1,400 subscribers. Regarding impact based on "Center-Sponsored Events," Mrs. Allen organized, planned and hosted the 2016 Inventor's Conference that was offered and sponsored by JSU's Center for Economic Development. Also, Mrs. Allen gathered, compiled economic data and helped to organize other conferences from 2015 to present.

SBI Faculty Engagement, Innovation, and Impact Report

This section presents the system used by the SBI to collect faculty accomplishments involving engagement, innovation, and impact for our 2018 Continuous Improvement Review (CIR), consistent with the 2013 AACSB Standards.

The Relevant Standards

The primary standards pertaining to engagement are included in the fourth group of standards: Academic and Professional Engagement. These include Standard #13 (Student Academic and Professional Engagement), Standard #14 (Executive Education), and Standard #15 (Faculty Qualifications and Engagement). Additional standards with an engagement focus include: Standards 1, 2, 5, 9, and 10. Standards linked to an impact focus include: Standards 1, 2, 8, 9, and 15.

One of the major changes in the 2013 Accreditation Standards is the requirement for business schools to demonstrate how they have achieved engagement, innovation, and impact through their teaching, research, and service activities. The focus of the Continuous Improvement Report is to tell how the business program is having an impact from engagement activities and innovation in delivering relevant quality management education. Engagement, innovation and impact are to be discussed throughout the entire report. Schools are to build their story with narrative supported, whenever possible, with tables that present quantitative metrics. Schools will document engagement accomplishments such as student extracurricular activities, intellectual contributions, faculty projects and other activities by showing the results of the engagement activities in accreditation reports and peer review visits.

The SBI utilized a "Faculty Engagement, Innovation, and Impact Report" to enable faculty to describe the contributions they made during the academic year toward the critical measures of engagement, innovation, and impact. The Report not only captures this important information, but also allows faculty and the SBI to "tell our story." The information obtained from the "Faculty Engagement, Innovation, and Impact Report" was dispersed throughout our CIR Report. In addition, a table showing select faculty class activities involving engagement, innovation, and impact was included in the Executive Summary of the CIR report. A sample section from the table is included in Appendix D. Because the SBI will need to continue to capture this information for future use, we will continue to use this "reporting system" as part of our year-end annual review process.

It was our experience that the system provides significant guidance and structure to help faculty in documenting accomplishments. We believe most faculty are glad to describe, using their own unique examples, how their activities contribute to the SBI's mission and positively impact their students and improve our programs. In addition, we used a modified version of the "Faculty Tracking Record" implemented in 2014 by the School of Business of Trinity University to capture faculty accomplishments pertaining to engagement, innovation, and impact. (Wilkins, 2016). The "Faculty Engagement, Innovation, and Impact Report" used for our 2018 CIR consisted of eight sections. Faculty were asked to describe their accomplishments pertinent to each section; examples were provided for guidance. A sample copy of the "Faculty Engagement, Innovation, and Impact Report," along with examples is included in Appendix E.

Conclusion

When the new AACSB International Standards were adopted in 2013, it soon became apparent that a general understanding of certain standards would prove difficult in preparing for our CIR visit in 2018. Very significant interactions with peers in the academic community ensued that proved to be very beneficial in interpreting the new standards and preparing a plan of action for implementation. The AACSB diligently assists business schools in many ways, including providing seminars and hosting other professional development events, special publications, creating networking opportunities, and providing data from research studies, and assessing trends. Even though, schools may still experience significant difficulty with certain standards and possibly benefit by sharing ideas and practices. Thus, the authors hope that the information conveyed in this article enables other business schools to learn from our experiences and the approach that we believe helped us achieve a successful peer review visit. No doubt, our approach will be among the many that will emerge over the next few years. We hope that our views will provide for relevant discussion by other schools as they develop their own ways to demonstrate the positive accomplishments of engagement, innovation, and the impact they make on society.

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Holmes, A.F., Wilkins, M., Zhang, S. 2017. "Engagement, Innovation, and Impact: Tracking Faculty Activities Under the 2013 AACSB Standards." Organization Management Journal, Vol. 14, No. 1, pp. 22-23.

Shinn, S. 2014. "Measuring Faculty Impact." BizEd Magazine, Vol. XIII, Issue 5, (September/October) pp. 20-24. Published by AACSB International.

Van Slyke, C., Yordy, E., & Wright, S. 2015. "Solving for X: Preparing for Impact." BizEd Magazine, Vol. XIV, Issue 6, pp 52-55. Published by AACSB International.

Wilkins, Michael S. 2016. "Track Record: Documenting Faculty Contributions in Impact, Engagement, and Innovation." BizEd Magazine, Vol. XV, Issue 5, (September/October) pp. 62-63. Published by AACSB International.

APPENDIX A

List of Categories and Examples of Impact Metrics Used by SBI as Support Documentation

I. Mission Alignment Impact

- Intellectual Contribution focus areas valued by SBI's mission: social responsibility, sustainability, ethics, global, entrepreneurship, diversity, regional economic development, applied scholarship and instructional development.

II. Academic Impact

- Citation counts
- Publications in leading peer reviewed journals
- Editorships
- Best paper awards
- Appointments to leadership positions in academic associations

III. Teaching/Instructional Impact

- Publications that focus on teaching
- Courses/certifications completed aimed at improving teaching
- Research grants that focus on teaching practices
- Widely adopted textbooks

IV. Bachelor's/Master's Level Educational Impact

- Mentorship of student research leading to papers presented at academic conferences or published
- Placement of students in research based graduate programs

V. Practice/Community Impact

- Consulting reports
- Publications in practitioner journals aimed directly at improving management practice
- Invitations for faculty to serve as experts on policy formulation
- Memberships on boards of directors

VI. Executive Education Impact

- Partnerships between the SBI and organizations that participate in executive education programs

VII. Research Center Impact

- Center research projects funded by external governments, business or non-profit agencies
- Center-sponsored events with the responsibility for organizing or serving as presenter or speaker

APPENDIX B

Table I
Impact of Intellectual Contributions
(Including 2013-2017 and Prior Years)
(Names are fictitious)

	Mission Alignment Impact	Academic Impact	Teaching/ Instructional Impact	Bachelor's/Master's Level Education Impact	Practice/ Community Impact	Executive Education Impact	Research Center Impact
ACCOUNTING							
Camp, T.	2	5			4		
Sharp, C.	6	6			2		
Sharp, J.	6	10			2		
Sims, J.	3	1	3		1		
Zeigler, J.	6	3			1		
ECONOMICS							
Brown, D.	2	5	4		1		
Cash, S.	2	4	3	2			
Ford, B.	24	1				1	
Mason, C.	3	9	4			2	
FINANCE							
Bates, B.	9	5			3		
Collins, R.	5	27			1		
Steward, B.	3	3					
Swift, B.	8	6	1		1	3	
LEGAL STUDIES							
Harper, B.	6	4			3		
Lindsey, R.	14	27	3			1	
STATISTICS							
Cline, L.	2	1			4		
Logan, K.	9	5	1	2			
Triplett, F.	2	1					
CENTER FOR ECONOMIC DEVELOPMENT							
Allen, A.	4	6					25
Griffin, J.							43
TOTALS:	116	129	19	4	23	7	68

APPENDIX C

Sample Entries from Faculty Intellectual Contribution Impact Reports
(Names are fictitious)

BEN BATES

MISSION ALIGNMENT IMPACT

Alignment of Intellectual Contribution, Outcomes with Themes or Focus Areas Valued by the Business School's Mission (Social Responsibility):
Peer Reviewed Journal Article. "Stages of Health Policy Formulation: A Study of Medical Care Access that Transcends Economic Cause and Effect," Journal of Healthcare Leadership,Management, and Research, 1(12), 2010, pp. 1-18.

Alignment of Intellectual Contribution, Outcomes with Themes or Focus Areas Valued by the Business School's Mission (Global):
Peer Reviewed Journal Article. "Analyzing Bilateral Currency Exchange Rates in Predicting Economic Output," Journal of International Business Research. Volume 7, No. 2 (2008), pp. 1-12. Co-author: S. Keith Logan

PRACTICE/COMMUNITY IMPACT

Consulting Reports:
JSU Center for Economic Development In-House Technical Consulting Report. "An Economic and Impact Analysis of Extending the Chief Ladiga Trail," Jacksonville State University. (November 2014).

SHAWN CASH

MISSION ALIGNMENT IMPACT

Alignment of Intellectual Contribution, Outcomes with Themes or Focus Areas Valued by the Business School's Mission (Diversity):
Book Review Published in a Journal. "Unequal Crime Recline: Theorizing Race, Urban Inequality, and Criminal Violence" by Karen F. Parker, Western Journal of Black Studies. Vol. 33, Number 4, December 2009, pp. 293-294.

TEACHING/INSTRUCTIONAL IMPACT

Publications that Focus on Research Methods and Teaching
"Teaching Graduate Economics: Online vs. Traditional Classroom Instruction," Journal for Economic Educators, Vol. 11, No. 2, Fall 2011. Co-authors: Doris Brown and Cynthia Mason.

BACHELOR'S/MASTER'S LEVEL EDUCATION IMPACT

Mentorship of Student Research Publications/Presentations Academic Conferences:
Peer-Reviewed article with JSU student: "The Relationship Between English Proficiency and Academic Performance on International Students in Undergraduate Education," International Journal of Science Commerce and Humanities. Co-author: Felipe Watanabe (undergraduate student and economics major).

RONNIE COLLINS

ACADEMIC IMPACT

Editorships/Editorial Boards/Journal Reviewer/Editorial Board Memberships/Invitations to Act as Journal Reviewers for Recognized, Leading Peer-Review Journals:
Editor of a Journal, Financial Decisions, 2002-Present.

Leadership Positions in Academic/Professional Associations:
Elected Officer. President of Financial Decisions Association, May 2002-Present.

Executive Director. Southern Finance Association. 1996-Present.

PRACTICE/COMMUNITY IMPACT

Requests from the Practice Community to Utilize Faculty Expertise for Consulting Projects:
Dr. Ronnie Collins prepared a consulting report for American Home Mortgage in 1999 while serving as an expert witness in a court case at the federal level. Dr. Collins evaluated a portfolio of mortgages valued at $1.2 billion. The appellant judges indicated their heavy reliance on the analysis that Dr. Collins provided.

TALEAH CAMP

ACADEMIC IMPACT

Citation Counts:
"Benefits and Drawbacks of Electronic Health Record Systems" N Menachemi, TH Camp–Risk Management Health Policy, 2011–Cited by 135 related articles

TEACHING/INSTRUCTIONAL IMPACT

Certified Online Instructor Course, February 2016-March 2016
Jacksonville State University's (JSU) Certified Online Instructor course is a six-week course that offers faculty a unique and creative professional development opportunity focused on building and teaching an online course.

PRACTICE/COMMUNITY IMPACT

Publications in Practitioner Journals or Other Venues Aimed Directly at Improving Management Expertise and Practice
Peer Reviewed Journal Article. "Management Involvement on the Board of Directors and Hospital Financial Performance." Journal of Healthcare Management, 59(6) . (2014).. Co-authors: N. Menachemi, M. Kilgore and R. Weech-Maldonado

BEN HARPER

ACADEMIC IMPACT

Citation counts:
"Hood, Harper and Lewis' Workers Compensation and Employee Protection Laws in a Nutshell," 5th, J Hood, B Harper Jr. H Lewis Jr – 2011 – Cited by 25 related articles

PRACTICE/COMMUNITY IMPACT

Publications in Practitioner Journals/Venues Aimed Directly at Improving Practice:
Workers' Compensation and Employee Protection Laws in a Nutshell, 4th edition, 2005, Thomson West. The West Nutshell publication Workers' Compensation and Employee Protection Laws is considered the best short treatise on the subject in the nation and is widely used by practicing attorneys and law students as well as people in the insurance industry.

Publications in Practitioner Journals/Venues Aimed Directly at Improving Practice:
Georgia Workers' Compensation Claims with Forms is so widely used by Georgia lawyers as the practical treatise on Georgia Worker's Compensation that it is now published annually. Annual editions include: 2015-2016, 2014-2015, 2013-2014 and 2012-2013.

Publications in Practitioner Journals/Venues Aimed Directly at Improving Practice:
Alabama Pleading Practice and Legal Forms: Rules of Civil Procedures is widely used by Alabama lawyers and is considered indispensable to the practitioner and annual supplements are published. Annual supplements include: 2015-2016, 2014-2015, 2013-2014 and 2012-2013.

ROB LINDSEY

MISSION ALIGNMENT IMPACT

Alignment of Intellectual Contribution, Outcomes with Themes or Focus Areas Valued by the business School's Mission (Ethics):
"Bankrupts Need not Apply: Sound Hiring Policy or Dangerous Proposition?" Virginia Law and Business Review, Vol. 7, No. 1, pp. 47-60, Spring 2012. Co-author: Ben Harper. (Law Reviewed)

ACADEMIC IMPACT

Publications in Highly Recognized, Leading Peer-Review Journals:
Dr. Lindsey regularly publishes in top-ranked law journals in the bankruptcy field. He has published in the American Bankruptcy Law Journal, a peer-reviewed law journal, with a 2nd place ranking by Washington and Lee University School of Law. He has published in the American Bankruptcy Institute Law Review and the Emory Bankruptcy Developments Journal, both with top-five rankings.

Editorships, Associate Editorships, Editorial Board Memberships, and/or Invitations to Act as Journal Reviewers for Recognized, Leading Peer-Review Journals.
Manuscript Reviewer, Journal of Legal Studies Education, August 2007-present.
Staff Editor, Journal of Legal Studies Education, August 2007-present.
Staff Editor, American Business Law Journal, August 2013 – present.
Manuscript Reviewer. American Business Law Journal, March 2012-present.
Manuscript Reviewer. Editorial Board, The Alabama Lawyer, June 2012-present.
Articles Editor, Journal of Legal Studies Education, January 2013-present.

BILL SWIFT

MISSION ALIGNMENT IMPACT

Alignment of Intellectual Contribution, Outcomes with Themes or Focus Areas Valued by the business School's Mission (Regional Economic Development):

Technical Report. A study entitled "An Economic and Demographic Review of Etowah County and Its Major Municipalities 2000-2007" was prepared for The Chamber, Gadsden, & Etowah County. The study was prepared by CCBA faculty and done through the Center for Economic Development and Business Research.

TEACHING/INSTRUCTIONAL IMPACT

Earning CFP® Certification (2015) and Meeting Annual Continuing Education Requirements by Completing Courses/Programs

Teaching is enhanced by enabling Dr. Swift to provide state-of-the art material to his students in the Investments course that he teaches on a regular basis.

PRACTICE/COMMUNITY IMPACT

Invitations for Faculty to Serve as Experts on Roundtables/Panel Discussions

Financial Planning Association Theory in Practice Academic/Practitioner Knowledge Circle.
Invited on August 21, 2015 to be a permanent member of this virtual community of financial planning academicians/practitioners.

EXECUTIVE EDUCATION IMPACT

Involvement of Executive Education Participants and their Organization in the Teaching Mission of the School.

Delivered Management/Executive Development Seminar in Finance and Accounting for Anniston Army Depot Leadership and Management Program, 2003-2008 (total of 10 classes).

JEFF ZEIGLER

Alignment of Intellectual Contribution, Outcomes with Themes or Focus Areas Valued by the business School's Mission (Information Technology):

Peer Reviewed Journal Article. "Hands-on Training in Relational Database Concepts," The Journal of Accounting Education, Vol. 22, 2004, pp. 131-152. Co-author: Bor-Yi-Tsay.

ACADEMIC IMPACT

Recognition for Research Best Paper Award:

"The 2006 Max Block Distinguished Article Award for Informed Comment" presented by the New York State Society of Certified Public Accountants for "GAAP Requirements for Nonpublic Companies: New Views on 'Big GAAP' Versus 'Little GAAP'," The CPA Journal, May 2006.

PRACTICE/COMMUNITY IMPACT

Invitations for Faculty to Serve as Experts on Policy Formulation, Witnesses at Legislative Hearings, Members of Special Interest Groups/Roundtables, etc:

Dr. Jeff Zeigler serves as a member of the JSU Center for Information Security and Assurance (CISA). The CISA is comprised of a group of 13 scientist and professionals dedicated to promoting and enhancing information security and assurance research and curriculum.

AMY ALLEN

Account Executive, JSU Center for Economic Development

RESEARCH CENTER IMPACT

Center Research Projects Funded by External Government, Business or Non-Profit Agencies

Assistant Editor, Economic Update. JSU Center for Economic Development In-House Monthly Newsletter.

Center-Sponsored Events with the Responsibility for Organizing or Serving as Presenter or Speaker

Planned/Hosted Conference. Organized, planned, and hosted the 2016 Inventor's Conference "From Innovation to Entrepreneurship: The Role of the Inventor."

Gathered, Compiled Economic Data and Helped Organize a Conference. From 2015 to present, participated in the Cheaha Economic Activity Zone (CEAZ) Exposition and Northeast Alabama Economic Activity Zone Exposition (NEAZ) on a biennial basis.

APPENDIX D
SAMPLE OF FACULTY CLASS ACTIVITIES INVOLVING ENGAGEMENT, INNOVATION AND IMPACT (NAMES ARE FICTITIOUS)

Engagement	Innovation	Impact	FACULTY CLASS ACTIVITIES
•		•	An accounting professor (J Sharp) added EXCEL assignments to ACC 360 Intermediate Financial Accounting II when information from employers brought to his attention that students/employees were weak in applying spreadsheet skills to business applications.
•	•	•	The accounting professor teaching the two tax courses (J Sharp) requires students to use the CCH Intelliconnect database to complete tax research problems and comprehensive tax returns.
•	•	•	A professor of economics (Cash), teaching EC221 Principles of Microeconomics, previously gave quizzes in class where he verbally recited a quote that was inaccurate and made the quote vague so as to elicit verbal debate among students. More recently, the professor performs the same exercise, but students use their smartphones and the professor responds in real time to give immediate feedback.
•	•	•	Economics professor (Bates) added a homework assignment in EC 221 Principles of Microeconomics where students respond to a series of true/false questions. Students can take it up to three times with the highest grade selected. This provides more practice opportunities for the exams as well as critical analysis of material covered in class with a benefit of better student participation in class. The professor discusses the questions in class in an attempt to stimulate discussions. The goal is greater participation and improvement in the learning outcomes. Also, by giving students three opportunities, it gets them more engaged in learning. Since EC221 students are younger, it is sometimes more difficult to get them motivated and involved; and this activity is helping in that regard.
•	•	•	Economics professor (Lindsey) developed a hybrid format for EC 221 Principles of Microeconomics to increase student engagement. The new blended format offers two hours of traditional classroom teaching each week, with a required online component each week consisting of YouTube video lectures and required assessments administered via Blackboard.
•	•	•	To enhance student learning and performance on exams in the Legal and Social Environment course (FIN292), the professor (Harper) modified this course to include an additional assignment of outside readings and student papers related to the readings. Also, students are required to answer discussion questions on the outside readings. The professor has concluded that these additional assignments benefit the students by giving them a broader philosophical and economic perspective of the material.
•		•	In FIN 434 International Finance (Collins), students complete several projects relative to foreign exchange rates including an international investing project. These assignments have shown to strengthen critical thinking, communication, and presentation skills for students.
•	•	•	To develop research techniques, writing, group work/behavior, and presentation skills in CBA 396 International Business (Rains), the instructor introduced a Country Analysis group project with a presentation element. She also added a Currency Journal where students are assigned a currency and given a “pretend” $2,000 USD to invest in that currency. Several videos have been added; one includes a Honda Corporation executive speaking on the importance of an understanding of international business for today’s business students. Videos afford the benefit of a guest speaker each semester without the scheduling commitment. CBA 396 students have the opportunity to participate in a private tour of the Honda Corporations production facilities with the CBA 390 students. JSU international students have been added to the guest speaker list for their unique perspective of international/cultural differences and the impact on business. Ms. Rains has also toured the Hyundai and Mercedes production facilities (along with Honda’s) to add to course lectures and case studies.

APPENDIX E
SBI Faculty Engagement, Innovation and Impact Report (2012–2017)

Section I: Engagement

A. Faculty Qualification and Engagement
Please list your accomplishments involving intellectual contributions and professional development engagement activities. Please describe how your accomplishments help you meet the requirements of your AACSB qualification status. Also, please describe how your accomplishments are contributing to the mission of the SBI.

B. Student Academic Engagement (Standard 13)
Please identify any activities you may have been involved with that has resulted in academic engagement. Examples could include: serving as faculty advisor or sponsor of student organizations, participation in career fairs/meeting with recruiters or employers, assisting with students' study abroad experiences or New York trip, providing letters of recommendation for employment or graduate school, oversight of student experiential learning activities/projects, directing student consulting projects (JSU's CED or SBDC), and inviting guest lecturers.
In the space below, provide a narrative of your own unique personal story pertaining to your student academic engagement experiences. Expand the space as necessary.

Section II: Innovation

A. Teaching Innovation and Effectiveness (Standard 12)
Describe ways that your teaching practices have produced positive outcomes: Examples could include: special certifications or courses for delivery of classes by distance education, special workshops/seminars/courses related to the improvement of course content or delivery, outstanding performance on teaching evaluations, favorable comments by students on teaching evaluations, involvement in the delivery of teacher training workshops, descriptions of course innovations/activities, ways course was made innovative, comments from department head or peer classroom evaluations, test scores of students who have performed well on admission/certification tests such as GMAT, LSAT, CPA exam, and exceeding the benchmark on course learning outcomes/assessment.
In the space below, provide a narrative of your own unique personal story pertaining to your teaching effectiveness. Expand the space as necessary.

B. Other Innovation
Provide a discussion of your innovative involvements: Examples could include: conducting interdisciplinary research, working on research projects with faculty outside the SBI, conducting new research, engaging in new professional service activities and new initiatives with professional organizations, revising or developing new courses, innovative initiatives with distance education, innovative course delivery initiatives, developing new majors and minors or concentrations, getting involved with other curriculum initiatives, developing/participating in executive education programs, involvement in fundraising events, or involvement with alumni activities. Also, innovative committee accomplishments at the university, business school or departmental levels. (Note, it is expected that some overlap will exist between innovation, engagement and impact).
In the space below, provide a narrative of your own unique personal story pertaining to innovative accomplishments. Expand the space as necessary.

Section III: Impact

A. SBI and Departmental Impact
Provide information focusing on activities in which you have been involved that had an impact on your department or the SBI. Examples could include: participation in SBI Business Week activities, managing departmental scholarship program, coordinating visits to SBI by potential students, donors, or members of the press or alumni, coordinating student recognition events, coordinating visiting scholar arrangements for SBI, sponsor/advisor of student organizations; participating in SBI events; service on University, departmental or SBI committees; coordinating learning outcomes assessment activities for the department or major; interviews with the media; responsibility for international partnerships with foreign universities; and leadership or elected positions in academic/professional organizations, career success of graduates, placement of students in graduate programs; feedback from organizations that hire graduates; the passage rates of graduates on professional certifications; and the number of students recognized by honorary organizations.

APPENDIX E (CONTINUED)
SBI FACULTY ENGAGEMENT, INNOVATION AND IMPACT REPORT (2012–2017)

In the space below, provide a narrative of your own unique personal story pertaining to your impact on your department or the School. Expand the space as necessary.

B. Teaching Impact
Provide documentation pertaining to textbooks, instructor manuals, teaching/learning pedagogical publications, instructional software, PowerPoints, and case studies, etc. that you have authored/co-authored. Other examples include: teaching awards, research that will influence teaching practices, and mentorship of student research that resulted in publication or formal presentation at academic or professional conferences, and mentorship you have provided to students involved in research projects or independent studies.
In the space below, provide a narrative of your own unique personal story pertaining to your impact on teaching. Expand the space as necessary.

C. Academic Impact
Provide a list of intellectual contributions along with indicators of how each of these activities has had an impact. Possible measures of impact include: best paper awards for conference presentations or papers published, textbooks with widespread adoption, citation counts for PRJ articles, having served in any of the following capacities: editor, associate editor, editorial board member and/or invitations to act as journal reviewers for peer-reviewed journals, elected or appointed to leadership positions in academic and/or professional associations and societies, publications in top-tier or leading peer-reviewed journals, and invitations to participate in conferences or scholarly programs.
In the space below, provide a narrative of your own unique personal story pertaining to your impact on academics. Expand the space as necessary.

D. Practice Impact
Describe how your activities have had an impact on the business world, public sector and other entities: Possible measures of impact include: an in-house publication which is widely distributed beyond the University community (e.g. an article in a publication of the JSU Center for Economic Development), a discipline-based report for a business, governmental, or quasi-governmental organization in the University's service region (such as an economic-impact study), creating and/or delivering an executive education seminar for a business organization or a discipline-based professional association, obtaining a new professional certification, elected officer, board member or major task-force/committee member of an academic or discipline-based professional organization (with significant responsibilities), service to a meeting of a professional association as a session chair, discussant, paper reviewer, local arrangements coordinator, etc., completion of annual requirements to maintain a professional certification, research projects undertaken in collaboration with companies or other organizations, media citations, expert witness testimony, consulting projects, articles written for practitioner publications, requests from the practice community to utilize faculty expertise for consulting projects, faculty/student consulting projects, presentations and workshops for business and management professionals, invitations by governmental or other agencies/organizations for faculty to serve on policy-making bodies, case studies that have led to business solutions, service on policy or practitioner boards, and invited speaker or panelist at a meeting of an academic or professional organization.
In the space below, provide a narrative of your own unique personal story pertaining to your impact on practice. Expand the space as necessary.

Linking Resource Allocation and Budgeting to Assessment through Integrated Processes: Integration of Goals at Micro, Macro, and Institutional Levels

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ABSTRACT

This paper focuses on the development and implementation of the Institutional Assessment Plan through integrated processes in which the assessment informs the decisions on budgetary matters and resource allocation. One of the key challenges in developing and implementing an institutional assessment plan is that often the decisions at the micro, macro, and institutional level are not fully connected. For example, a request from department X for a faculty line (a micro-level decision/request) may have little or no influence on the decision made by the President/Cabinet that the institution will conduct Y searches in the next year (an institutional level decision). We address the issue of the disconnect between the decisions at the micro, macro, and institutional levels by developing an integrated processes model. That results in executing the assessment plan through integrated goals and an integrated action plan that minimizes duplication of effort and improves efficiency.

Introduction

As we entered the 21st century, the institutions of higher education in the United States have witnessed a significant shift in the way they are evaluated as the regional and national accreditation agencies in higher education are now significantly focused on the outcomes (goals) (Provezis, 2010). Whether it is student learning or service and operations to support the academic activity, institutions must define what they are trying to achieve in terms of expected outcomes at all levels. Furthermore, they must develop the processes to achieve and periodically, measure the achievement of those outcomes. This is termed as outcome assessment. The results of the outcome assessment are to be used to change/improve the processes and inform the budgetary and resource allocation decisions, which would result in improving the level of achievement of these outcomes. Utilizing the results of the outcome assessment to improve the level of achievement of the outcomes is known as the closing the loop. Closing the loop marks the end of the current assessment cycle (and the beginning of the next assessment cycle).

If all this sounds complicated then probably it is. Outcome assessment is all about improvement and using our resources more efficiently. It should not be a burden or tax our already scarce resources. One reason that assessment becomes a burden or rather challenging is the multi-level hierarchical structure of academic institutions where often the processes at different levels are not fully connected. Most academic institutions, if not all, have three distinct levels where decisions are made:

1. Micro level: Academic departments and administrative units responsible for providing services and operations to support academic activity fall under this category. As far as assessment is concerned, this is where all the action is. For example, assessments of student learning outcomes (goals) occurs at the academic department level. Similarly, the assessment of services and operations goals occurs

at the unit level by the specific unit that offers the services or is responsible for the operations in question. These assessments generate actions, decisions, requests, etc., at the lowest level.

2. Macro level: This is where middle-level decisions are made at the highest level of the administrative arms of the institution such as Academic Affairs, Student Affairs, Finance/Administration, etc.
3. Institutional level: This is where the key budgetary and resource allocation decisions such as number of searches to be conducted institution-wide during the upcoming year or renovating a building/laboratory etc., are often made by an institution level body such as the Cabinet or a committee and requires final approval by the President of the institution.

The entities at each of the three levels often have specific goals and processes to achieve them; however, it is the lack of inter-level articulation of the goals and processes at each level that is the cause for inefficiencies and could make the outcomes assessment process at the institutional level a daunting task. Our study has shown that it is one of the biggest challenges for developing Institutional Assessment/Effectiveness Plan at many institutions.

Our current research focuses on developing an integrated process model to seemlessly link the budgetry and resource allocation decisions at the institution level to the outcomes assessment at the micro level. Process or program level integration has been applied in the business world as well as in govenrment agencies to improve efficiencies (Adams, 2004) (Commerce, 2004). Two key components of this model are integrated goals and an integrated action plan, This paper presents a framework to create fully integrated goals at the micro, macro, and insitutional level. The framework is easily adaptable to any institution's specific needs if one wishes to use it.

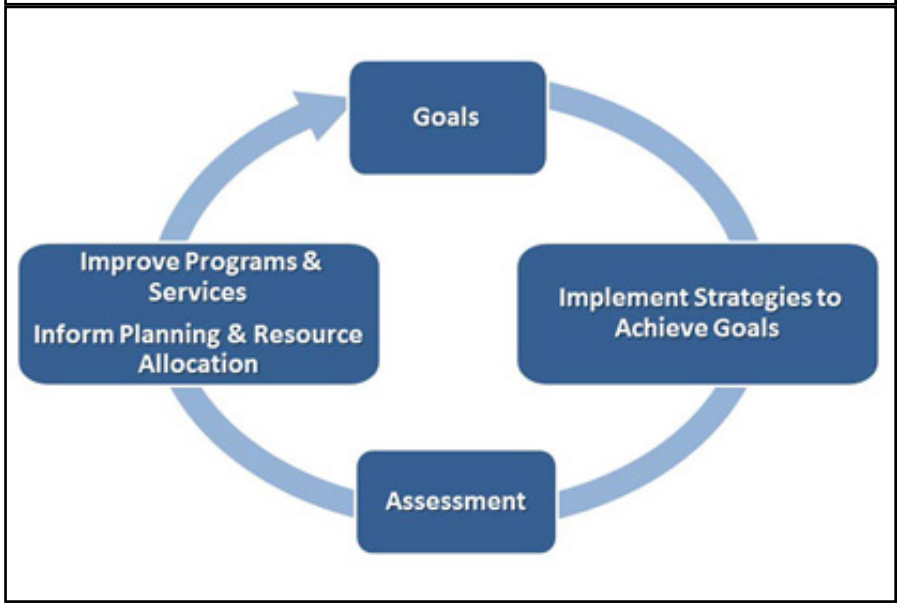
The rest of the paper is organized as follows: Section II briefly describes the key components of an Institutional Assessment/Effectiveness Plan. Section III presents an approach to the integration of goals from micro to institutional levels. Section IV concludes the paper with an application of our approach to developing integrated goals and discussion of future research on this topic.

Institutional Assessment/ Effectiveness Plan

An institutional assessment plan is a four-step planning-assessment cycle, which starts with institutional goals. Institutional goals are aligned with the mission of the institution. Setting goals will have no meaning if we cannot achieve them. Therefore, goals must be measureable, and we need to have the means (strategies) to achieve those goals. We need to assess the goals periodically to see how well we are achieving our goals. And finally, we need to use the results of assessment to improve the level of achievement of the goals (changes in programs, resource reallocation, budgetary adjustments etc. informed by the assessment results). In summary, the four components of an assessment plan an be described as follows (see Figure 1):

1. Defining institutional goals, which are clearly articulated
2. Implementing strategies to achieve those goals
3. Assessing achievement of those goals and
4. Using the results of those assessments to improve programs and services and inform planning and resource allocation decisions.

Figure 1
Assessment plan as the four-step planning assessment cycle



Integration of Goals

An assessment plan starts with goals, and that is exactly where the integration of all assessment related activities within the institution start. The key to integrated assessment is to integrate micro-level goals (at the academic department or unit level) to an institutional-level goal. We will start with institutional goals for an academic institution.

The term "Goal" describes a desired outcome or accomplishment. In the business world, the concept of SMART goals has been used widely (Doran, 1981). Each letter in "SMART" represents a specific characteristic of the goal as described below:

S: Specific

M: Measurable

A: Achievable

R: Relevant

T: Timebound

If a goal is "SMART," we can define specific activities/processes to achieve the goal. However, in large organizations such as academic institutions, the institution level goals could be very broad and may not be achievable by a specific set of activities/processes. In that case, a pathway to achieve the goal in the form of strategy can be defined first. Those strategies can then be transformed into more specific goals. We can continue to repeat the process of defining strategies and transform them into more specific goals at the next level (keep adding levels of specificity) until we reach the level where we can define specific activities/processes to achieve the specific goals at the level just above.

We use the process outlined above to develop integrated goals for an academic institution. Figure 2 illustrates this concept for an academic institution. The key to integrating goals in a multi-level environment is to transform the strategies to achieve a broad goal at the highest level to more specific goals at the level below. This process continues to the level where goals become so specific that one or more activities/processes can be specified that will achieve a specific goal.

Application

All academic institutions, whether public or private, would have two key components in their mission: one related to academic excellence and other related to student success. Accordingly, institutions will have one or more goals associated with these two key components of their mission. In fact, every academic institution should

Figure 2
Integrating goals at the three levels.

have institutional goals in these areas (among any other goals they choose to have, which are unique to their institution) because they are related to the core business of academic institutions. Without that they will not be an academic institution. The number of goals or specific goal statements are not important and each institution can have goals suited to their specific situation. The only thing that matters at this level is that the institution-specific goals are designed to achieve the mission of the institution in the two key components. So here we formally state the two key components of the mission of an academic institution:

1. Academic Excellence
2. Student Success

Let's consider these key components of the mission of an academic institution one by one, starting with the first key component "Academic Excellence." Once an institution has defined a goal (or goals; as mentioned earlier, an institution can choose as many institutional goals as the institution aspires to have), the next step is to develop strategies to achieve that goal(s). So, the question is, how do we contribute to academic excellence? One can make a long list of things, which can be done to contribute to academic excellence. Someone else can have another list, probably quite different from the first one, to do the same. However, it's hard to argue that we can make a meaningful contribution to academic excellence without strengthening our academic programs and have faculty who excel in teaching and research or creative work. Therefore, the two must have strategies to contribute to academic excellence are:

1. Strengthen academic programs
2. Have faculty with excellence in teaching and research/creative work

We integrate the goal(s) at the institutional and macro levels by transforming the strategies to achieve the institutional goal(s) into more specific goals at the macro level. In other words, at the macro level (Provost Office in this case) we will have (among others) two key goals: (1) strengthen academic programs and (2) recruit and retain faculty with excellence in teaching and research/creative work. Note that the focus of this paper is to integrate assessments, therefore, only the "strengthen academic programs" is of interest to us. However, for a complete institutional assessment/effectiveness plan both goals will be considered.

Note that the macro level goal "strengthen academic programs" is still pretty broad and we can use several strategies to achieve this goal. For example, seeking/maintaining external accreditation is one way to strengthen a program. Periodic program review through self-study is another was to achieve this objective. Continuous program improvement through outcome assessment is yet another way, which is also required by the regional accreditation agencies. The Provost Office at a particular institution may choose to use a combination of these three strategies along with possible others they can think of. However, all departments will have a program-level assessment as one of the goals to strengthen their programs. In this way, the macro level strategies "program level assessment is transformed into a micro level goal for academic departments. At the micro level (department level) each department and/or program can now choose a set of activities/process suitable to their situation to achieve this goal. In this way, we have integrated micro, macro, and institution level goals and thus the assessment of those goals is also integrated. Table 1 illustrates the integration of student learning goals (program level assessment) at departmental level into the institutional goal(s) related to "academic excellence."

Note that, a clear assignment of responsibility and flow of information among different entities involved in all assessment related activities at the institution may require creating a framework within the college's governance structure to make assessment a collaborative effort between the administration and the faculty while preserving faculty prerogatives and leadership on the assessment of student learning. That can be achieved by creating a standing assessment subcommittees of the appropriate institution-wide committees such as curriculum, general education, etc. These assessment subcommittees can work closely with the Office of Institutional Effectiveness to provide oversight of the assessment of student learning at the institution thus fostering faculty involvement and leadership in the assessment of student learning.

Let's now consider how student learning goals (program-level assessment) at the departmental level can also be integrated into the institutional goal(s) related to "student success." One argument, among many possible depending upon each institution's unique situation, would be that student success, after they graduate, is highly related to what they have learned during the course of their study. Therefore, strategies to achieve this goal must include improving student learning. Students are more likely to be successful if they finish their coursework in a timely fashion and do not have gaps in their course of study. Therefore, improving the graduation and retention rate would also contribute to improving the success of our students. Other strategies may include improving the quality of campus life & services. Probably, one can think of a few more, but these are the ones that can impact the student success the most. Therefore, we will use the following

three strategies for achieving the goal "improve student success":

- Improving student learning
- Improving the graduation and retention rate
- Improving quality of campus life & services

As we have done earlier, we will integrate the assessment at the institution, macro, and micro-level by turning the strategies to achieve goals at a particular level into more specific goals at the next lower level. Again, we will only consider the strategies that can be related to assessment. In this case, an intra-level connection can be created between two macro level goals, "strengthen academic programs" and "Improving student learning" with one shared strategy of "program level assessment."

The administrative arm of the institution overseeing building and grounds perhaps will have a goal of improving the quality of campus life and the strategy to achieve this goal will be the assessment of the operational outcomes. The administrative arm of the institution overseeing student affairs will have a goal of improving student support services and the strategy to achieve this goal will be the assessment of student support services. The administrative arm of the institution overseeing enrollment will have a goal of improving the quality of academic support services and the strategy to achieve this goal will be the assessment of academic support services etc., should be the part of the institutional assessment plan.

The focus of our ongoing work is to develop the framework for an integrated action plan for closing the loop in institutional assessment cycle, which can easily be adapted to any institution's specific needs.

Table 1
Integration of student learning goals at departmental level into the institutional goal(s) related to "academic excellence."

Level	Key Component of the Institutional Mission				
Institution	**Goal(s)**	Academic Excellence related goal(s) (Institution specific)			
	Strategy	Strengthen academic programs		Have faculty with excellence in teaching and research/creative work	
Macro	**Goal(s)**	Strengthen academic programs through means suitable and consistent with the disciplinary norm of a particular program.		Recruit and retain faculty with excellence in teaching and research/creative work through increased outreach and incentive.	
	Strategy	Program level Assessment on a three-year staggered cycle	External Accreditation/Self Studies on five-year staggered cycle (or as required by an external accreditation agency)	Institution specific	Institution specific
Micro	**Goal(s)**	Conduct program-level assessment (1/3 of the departments at the institution each year) etc.	Conduct self-study (1/5 of the departments at the institution each year).	Institution specific	Institution specific
	Activity/ process	As determined by the specific department/ program	As determined by the specific department/ program	Institution specific	Institution specific

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We encourage the submission of manuscripts, presentation outlines, and abstracts pertaining to any business or related discipline topic. We believe that all disciplines are interrelated and that looking at our disciplines and how they relate to each other is preferable to focusing only on our individual 'silos of knowledge'. The ideal presentation would cross discipline. borders so as to be more relevant than a topic only of interest to a small subset of a single discipline. Of course, single domain topics are needed as well.

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We encourage the submission of manuscripts pertaining to pedagogical topics. We believe that much of the learning process is not discipline specific and that we can all benefit from looking at research and practices outside our own discipline. The ideal submission would take a general focus on learning rather than a discipline-specific perspective. For example, instead of focusing on "Motivating Students in Group Projects in Marketing Management", you might broaden the perspective to "Motivating Students in Group Projects in Upper Division Courses" or simply "Motivating Students in Group Projects" The objective here is to share your work with the larger audience.

Academic Administration

We encourage the submission of manuscripts pertaining to the administration of academic units in colleges and universities. We believe that many of the challenges facing academic departments are not discipline specific and that learning how different departments address these challenges will be beneficial. The ideal paper would provide information that many administrators would find useful, regardless of their own disciplines