Volume 10 **ISSN 1098-8394**

JOURNAL of ENTREPRENEURSHIP EDUCATION

JoAnn and Jim Carland
Carland Academy
Co-Editors

The *Journal of Entrepreneurship Education* is owned and published by the DreamCatchers Group, LLC, and printed by Whitney Press, Inc.

Whitney Press, Inc.
Printed by Whitney Press, Inc.
PO Box 1064, Cullowhee, NC 28723

All authors must execute a publication permission agreement taking sole responsibility for the information in the manuscript. The DreamCatchers Group, LLC is not responsible for the content of any individual manuscripts. Any omissions or errors are the sole responsibility of the individual authors.

The *Journal of Entrepreneurship Education* is owned and published by the DreamCatchers Group, LLC, PO Box 2689, 145 Travis Road, Cullowhee, NC 28723, U.S.A., (828) 293-9151, FAX (828) 293-9407. Those interested in subscribing to the *Journal*, advertising in the *Journal*, submitting manuscripts to the *Journal*, or otherwise communicating with the *Journal*, should contact the Executive Director of the Allied Academies at info@alliedacademies.org.

JOURNAL OF ENTREPRENEURSHIP EDUCATION
EDITORIAL BOARD MEMBERS

JOURNAL OF ENTREPRENEURSHIP EDUCATION
EDITORIAL BOARD MEMBERS

JOURNAL OF ENTREPRENEURSHIP EDUCATION

CONTENTS

LETTER FROM THE EDITOR

The *Journal of Entrepreneurship Education* is owned and published by the DreamCatchers Group, LLC. The Editorial Board and the Editors are appointed by the Allied Academies, Inc., a non profit association of scholars whose purpose is to encourage and support the advancement and exchange of knowledge, understanding and teaching throughout the world. The *JEE* is a principal vehicle for achieving the objectives of the organization. The *JEE* is dedicated to the study, research and dissemination of information pertinent to improvement of methodologies and effectiveness of entrepreneurship education. The editorial board considers three types of manuscripts. First is empirical research which examines the many facets of entrepreneurship and which expands the body of knowledge of entrepreneurship education. Second, case studies that have a demonstrated effectiveness and bring new perspectives to entrepreneurship education are considered. Third, manuscripts which document successful applied innovations in entrepreneurship education are solicited.

We are actively soliciting papers for the next volume of the *Journal of Entrepreneurship Education*. The process for submission of papers has been centralized through Allied Academies. All submissions are now electronic and go directly to Allied Academies. You may learn more about this process at www.alliedacademies.org. We are working to streamline our processes and we strive to have all papers reviewed and authors notified within three months of submission.

We are also seeking to grow our Editorial Review Board. If you are interested in reviewing submissions for the Journal, please submit a request by email to info@alliedacademies.org.

Thank you for your interest in The Journal of Entrepreneurship Education.

JoAnn and Jim Carland
Carland Academy

ARTICLES

TRENDS IN THE MARKET FOR ENTREPRENEURSHIP FACULTY FROM 1989-2005

Todd A. Finkle, The University of Akron

ABSTRACT

Despite the desperate financial disposition at universities today, entrepreneurship education continues to play a vital role at universities and colleges throughout the world. Increased competition from companies, international schools, the Internet, and a decrease in the number of foreigners applying to graduate schools has not stopped universities from building their entrepreneurship programs. This article will show that there is still a strong demand for entrepreneurship faculty. Despite a slowdown in the market over the past few years, the current market for entrepreneurship faculty remains optimistic with demand outpacing supply.

INTRODUCTION

The purpose of this article is to examine the trends in entrepreneurship education. Specifically, this article examines the various characteristics of positions and candidates on the market from 1989 through 2005. The article will answer the question: Is the field of entrepreneurship institutionalized within Schools of Business and Management?

Institutional theory (Meyer & Rowan, 1977) has been investigated by a number of scholars (see Bruton & Ahlston, 2003; Dacin, Goodstein, & Scott, 2002; Dowling & Pfeffer, 1975; Eisenhardt, 1988; Roberts & Greenwood, 1997; Scott, 1987; 1995). Institutional theory argues that organizations operating in institutionalized environments demonstrate that they are acting in a legitimate manner adopting the structures and activities that are perceived to be legitimate by their critical external resource providers (Finkle & Deeds, 2001). In essence by adopting appropriate structures, the organization increases its legitimacy and is able to use this legitimacy to increase its support and ensure its survival (Dowling & Pfeffer, 1975; Meyer & Rowan, 1977). Furthermore, organizations that operate in institutionally elaborate environments, such as Schools of Business and Management, become sensitive to and employ external criteria of worth such as awards, rankings, and endorsements by prestigious individuals or organizations, etc. (Meyer & Rowan, 1977).

Finkle and Deeds (2001) found that the field of entrepreneurship was becoming increasingly institutionalized through the dramatic increase in rankings of entrepreneurship programs, press coverage, and demand for entrepreneurship faculty. However, they asserted that the field was still not fully institutionalized because most of the positions had been either non-tenure track or

untenured assistant professorships. Furthermore, the hiring of tenured faculty in entrepreneurship and the creation of departments of entrepreneurship were rare.

AACSB

This study takes on a new dimension of legitimacy. The study examines whether or not Schools of Business and Management that are accredited by AACSB International (The Association to Advance Collegiate Schools of Business) are recruiting entrepreneurship faculty. I propose that AACSB schools that recruit entrepreneurship faculty will enhance the legitimacy of the field due to the prestige associated with AACSB.

In order to earn the designation AACSB, schools must pass a process of voluntary, non-governmental review of educational institutions and programs. Specialized agencies award accreditation for professional programs and academic units in particular fields of study. As a specialized agency, AACSB International grants accreditation for undergraduate and graduate business administration and accounting programs (AACSB, 2005).

According to the AACSB web site (see http://www.aacsb.edu/accreditation/), AACSB International accreditation represents the highest standard of achievement for business schools worldwide. Institutions that earn accreditation confirm their commitment to quality and continuous improvement through a rigorous and comprehensive peer review. AACSB International accreditation is the hallmark of excellence in management education (AACSB, 2005).

AACSB International is the professional association for college and university management education and the premier accrediting agency for bachelor's, master's, and doctoral degree programs in business administration and accounting. AACSB International's 494 accredited member institutions represent 24 nations, 30,000 faculty members, and 700,000 students majoring in business. Fifty-five percent of all annual U.S. degrees in business and management education are from AACSB accredited institutions (AACSB, 2005).

This study incorporates the AACSB dimension by looking at the total number of tenure track AACSB positions and tenure track candidates. If, indeed, the field is moving forward towards becoming more institutionalized then a larger percentage of the positions should be at AACSB accredited institutions.

This study will also update us with the changes that have occurred since Finkle and Deed's initial study in 2001. Specifically, this study examines the number and level of entrepreneurship positions, quality of the recruiting institutions, and the number, level and training of entrepreneurship candidates from 1989/90-2004/05. This study not only updates us on the trends in the market for entrepreneurship faculty, but also looks at the positions available at the Top 50 and AACSB schools. The findings of this study will benefit faculty and administrators throughout the world.

METHODOLOGY

Data for the study was collected from a variety of sources. All editions of the Academy of Management Placement Roster and The Chronicle of Higher Education were used. Data was also collected from job postings listed on two web sites: the United States Association for Small Business and Entrepreneurship (USASBE) (http://usasbe.org/) and the Academic Keys for Business Education (http://business.academickeys.com/seeker_job.php). Finally, advertisements that came through the mail and the Internet were also used in the study.

The sample was first broken down into academic years (e.g., 1999/00). It was then broken down into two sub categories within each academic year; January through June (spring) and July through December (fall). The data ended in June 2005 or the 2004/05 academic year.

To prevent overlap from semester to semester, both candidates and positions were cross-listed during every academic year. Similar to Finkle and Deed's (2001) study, if a candidate or position was listed in both the fall and spring, the spring listing would be deleted leaving only one data point.

The focus of the study was on Schools of Business and Management. Therefore, if an opposing college (e.g., law, engineering, etc.) was seeking a candidate with an interest in entrepreneurship, this position was not included in the study.

Trends in the Market for Entrepreneurship Faculty

The data for the study is shown in five tables. Table #1 examines the total number of positions and candidates, the schools' and candidates' interest in entrepreneurial education (e.g., primary, secondary, or tertiary). Table #1 also includes the total number of international positions and candidates. Table #2 presents the academic ranks desired by the candidates and schools. The positions in this table indicate all of the tenure track positions and the rank at which they are hiring. Table #3 shows the fields of expertise that were advertised by schools and candidates. Table #4 shows the number of advertisements, including rank, for Top 25 and Top 50 schools. Table #5 shows the number of tenure track AACSB positions for 2004/05 academic year. This table is broken down into rank and interest.

Positions and Candidates

The findings indicate (See Table 1 & Figure 1) that the field has grown from 26 advertised positions in entrepreneurship in 1989/90 to 212 positions in 2004/05. This is an increase of 715%. The number of positions peaked in the 1999/00 school year at 228. The 1999/00 peak was likely a direct result of the Internet boom with many universities trying to capitalize on the fad.

The following four academic years (2000/01 through 2003/04) saw the percentage of positions drop off by 15-30%. However, by 2004/05 the total number of positions was a mere 16 below its peak of 228 in 1999/00. This is promising information for the field of entrepreneurship. The results of the study indicate that the number of entrepreneurship candidates increased from 35 in 1989/99 to 106 in 2004/05, an increase of 203%. The number of candidates peaked in 1995/96 at 109. That year was the worst year for entrepreneurship candidates with 2.87 candidates per position. The numbers of candidates has fluctuated since 1995/06 dropping to a low point in 1997/98 of 54 candidates, a drop of 50% from its peak.

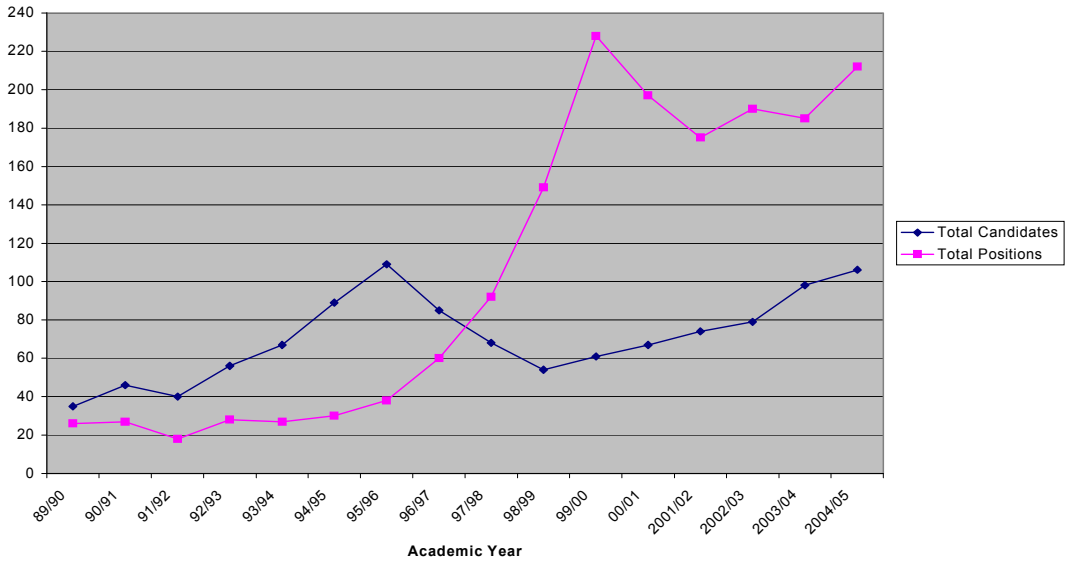
Table 1: Numbers of Candidates & Positions

	Candidates w/Primary Interest	Positions w/Primary	Candidates w/2nd	Positions w/2nd Assignment	Candidates w/Tertiary	Positions w/Tertiary Assignment	Int'l Candidates	Int'l Positions	Total Candidates	Total Positions
Academic Yr. 89-90	5	5	15	12	15	9	3	0	35	26
Academic Yr. 90-91	3	9	23	6	20	12	2	2	46	27
Academic Yr. 91-92	7	12	20	3	13	3	1	2	40	18
Academic Yr.92-93	6	16	23	3	27	9	2	3	56	28
Academic Yr. 93-94	10	18	32	6	25	3	3	1	67	27
Academic Yr. 94-95	15	20	45	4	29	6	3	5	89	30
Academic Yr. 95-96	24	20	50	9	35	9	9	7	109	38
Academic Yr. 96-97	19	36	35	18	31	6	4	12	85	60
Academic Yr. 97-98	20	50	25	26	23	16	6	13	68	92
Academic Yr. 98-99	16	58	10	45	28	46	9	22	54	149
Academic Yr. 99-00	17	92	17	67	27	69	10	21	61	228
Academic Yr. 00-01	15	82	25	56	27	59	5	26	67	197
Academic Yr. 01-02	24	54	28	65	24	56	12	16	74	175
Academic Yr. 02-03	31	83	19	50	29	57	6	19	79	190
Academic Yr. 03-04	35	74	33	67	30	44	22	20	98	185
Academic Yr. 04-05	33	94	40	65	33	53	15	17	106	212

Overall, the field peaked in 1999/00 with 228 positions available for 61 candidates (3.7:1 ratio). Since this peak, the ratio of the number of positions per candidate has declined over the past few years (2000/01 to 2003/04) from 2.94 to 1.89. The numbers indicate that the ratio of positions to candidates has dropped nearly in half since the Internet bubble. However, the most recent numbers in 2004/05 show that there are two jobs for every candidate. This is a very promising number for future candidates.

Over the past six years we have seen a dramatic rise in the number of candidates and positions in the field of entrepreneurship. There are a number of factors that could explain this. First, the number of doctoral programs has increased significantly over the past several years. Second, we have seen a significant increase in the number of layoffs, which may have increased the number of people entering doctoral programs in entrepreneurship. Third, there is an increase in the number of endowed chairs in the field. Fourth, entrepreneurship has become extremely hot over the past decade. The number of colleges and universities that offer courses related to entrepreneurship has grown from a handful in the 1970s to over 1600 in 2005 (Kuratko, 2005). Finally, entrepreneurship centers have the ability to become cash cows for universities.

Figure 1:
Candidates and Positions



Tenure Track Positions

The number of tenure track positions (this includes both coming in with tenure and tenure track positions) is an indication of the institutionalization of the field of entrepreneurship. As schools recruit more tenure track faculty, they commit more resources to the field. This shows their commitment to entrepreneurship. Furthermore, the larger the number of entrepreneurship tenure track faculty in a business school, the greater the representation of the field in the decision making processes. This, in turn, is an indication of the field's institutionalization.

Table 2 and Figure 2 show the growth of tenure track candidates and positions.

Table 2: Tenure Track Candidates & Positions

	Candidates							Positions						
Academic Year	**Assistant**	**Associate**	**Full**	**Endowed**	**Open**	**Total**	**%**	**Assistant**	**Associate**	**Full**	**Endowed**	**Open**	**Total**	**%**
89/90	24	4	2	0	5	35	100	19	0	0	3	4	26	100
90/91	34	4	1	0	3	42	91	19	0	0	3	3	25	93
91/92	29	5	1	0	5	40	100	10	1	0	3	1	15	83
92/93	29	4	2	0	7	42	75	15	0	0	4	4	23	82
93/94	30	4	1	0	5	40	60	18	0	1	3	1	23	85
94/95	46	2	0	0	5	53	60	14	2	0	2	5	23	77
95/96	51	1	0	0	3	55	50	22	2	1	5	4	34	89
96/97	48	1	0	0	5	49	58	23	6	0	8	14	51	85
97/98	63	0	0	0	4	67	99	41	4	3	5	7	60	65
98/99	37	3	0	0	9	49	91	58	17	5	10	51	141	95
99/00	47	1	1	1	5	58	95	88	21	3	23	81	216	95
00/01	49	1	0	0	12	62	84	52	16	4	18	97	187	95
01/02	60	4	1	0	9	74	100	81	34	4	3	38	160	91
02/03	56	12	4	0	5	77	97	81	33	14	12	41	181	95
03/04	66	11	6	2	11	96	98	63	40	8	13	47	171	92
04/05	75	8	4	0	15	102	96	64	59	9	17	35	184	87

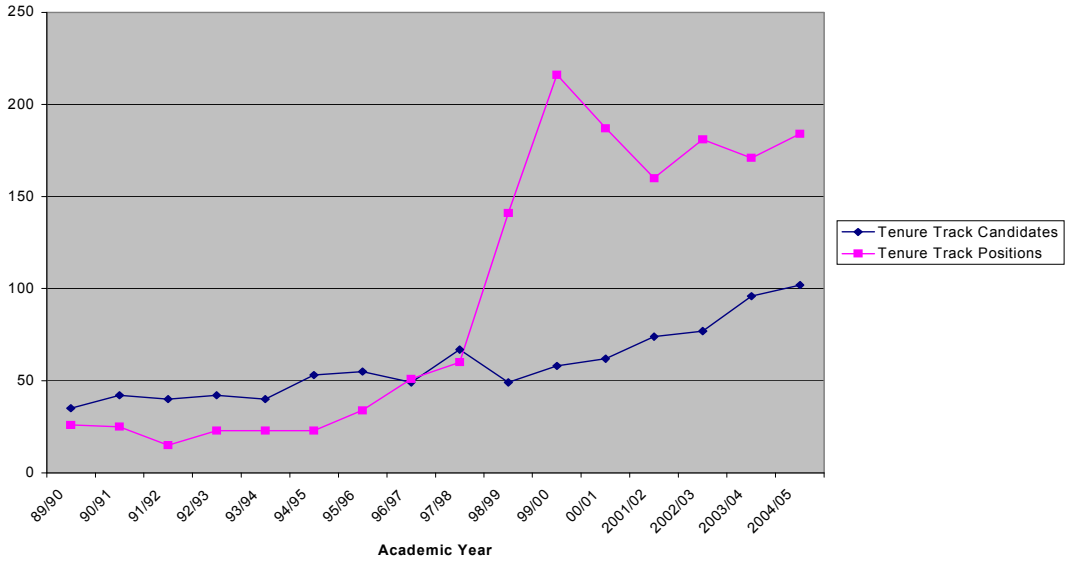
% = Total % of Candidates and Positions that were tenure track.

In the beginning stages of the study (1989/90-1996/97), most of the positions were tenure track. More recently, the number of tenure track positions has increased dramatically. For example, from 2002/03-2004/05, there were 181, 171, and 184 tenure track jobs.

The examination of the candidates found that almost every one of them were seeking tenure track positions. The ratio of tenure track positions per candidate has improved from a low of .43 positions per candidate in 1994/95 to a high of 3.72 in 1999/00. In 2004/05 the ratio of tenure track positions per candidate was 1.78.

The overall trend in tenure track positions for the field of entrepreneurship has grown significantly over the past six years. Institutions are committing more resources to the field of entrepreneurship by seeking a greater number of tenured and tenure track faculty with expertise within the field. While we peaked out during the Internet boom, the numbers are bouncing back.

Figure 2:
Tenure Track Candidates and Positions



Academic Rank

The academic ranks desired by schools and candidates can be seen in Table 2. One of the more significant findings of the study is the massive increase in the recruitment for senior entrepreneurship faculty. In 1989/90 there were only three openings for endowed chairs and four open positions (27% of all tenure track positions). Open positions indicate that a school is open to hiring an assistant, associate or full professor dependent on their qualifications.

Starting in 1998/99, the data indicate that there was a significant push to hire senior faculty. From 1998/99 through 2004/05 the percentage of advertisements for senior level (associate, full, endowed chairs, and open positions) tenure track faculty were 59%, 59%, 72%, 49%, 55%, 63%, and 65%. This was contrary to early years in the study (1989/90-1995/96), which advertised for 25-40% senior faculty. Overall, from 1989-1998, about one-third of all of the positions were for senior faculty where last academic year 65% of all advertised positions were for senior faculty.

Another interesting finding is the trend in endowed chairs. From 1989-1998 the number of endowed chairs was significantly lower than in recent years. From 1999/00 through 2004/05 there were 96 advertised endowed chairs. This is in contrast to the previous five years in the study, 1994/95-1998/99, where there were only 30 endowed chairs. This is one of the best times in the history of the field to be searching for an endowed chair in entrepreneurship. As the field of entrepreneurship continues to grow we will continue to see new endowed chairs open up at institutions.

The numbers for the candidates are equally interesting. As the field has matured, we are seeing more candidates marketing themselves for more senior level positions. From 2002/03 through 2004/05 we have seen the largest number of associate (12, 11, and 8) and full (4, 6, and 4) professor candidates. The market has also seen several leading entrepreneurship scholars switching schools for more desirable senior positions.

It is obvious that Schools of Business and Management are seeking more established scholars in the field to lead their programs. The recruitment of senior faculty with proven track records in entrepreneurship can enhance a school's legitimacy overnight.

Level of Interest

Table 1 and Figures 3 and 4 show the number of positions and candidates in entrepreneurship by their level of interest. The level of interest of the candidates and schools was broken down into three classifications: primary, secondary, or tertiary. From 1989/90 to 2004/05 academic year, the number of candidates that classified entrepreneurship as their primary field increased from 5 to 33 (560%). During that same period, the number of candidates that listed entrepreneurship as their secondary and tertiary field increased from 15 to 40 (167%) and 15 to 33 (120%).

The number of candidates that declared entrepreneurship as their primary field of interest has risen over the past few years, peaking in 2003/04 at 35. However, the data indicate that the majority of candidates are selecting entrepreneurship as a secondary or tertiary area of interest. This is not surprising, given the newness of the field and the lack of legitimacy that the field has garnered over the years. Most schools have yet to require students to take courses in entrepreneurship.

However, there is evidence of the institutionalization of the field based on the increasing number of primary entrepreneurship positions. From 2001/02 to 2004/05, the percentage of positions that were advertised as primary entrepreneurship positions were 31% (54), 44% (83), 40% (74), and 44% (94). This past year we saw the largest number of primary positions ever documented.

Over the same period the number of primary positions increased from 5 to 94 for a whopping 1780% increase. Secondary and tertiary positions increased from 12 to 65 (442%) and 9 to 53 (489%).

From 1989/90 to 2004/05, the ratio of primary entrepreneurship positions per candidate increased from 1.0 to 2.85. The field saw the largest number of positions per candidate during the period 1999/00 to 2000/01 where the ratio peaked in 1999/00 at 3.7 positions per candidate.

Evidence of the institutionalization of the field of entrepreneurship can be seen in the increasing number of primary entrepreneurship positions. From 2001/02 to 2004/05, the percentage of positions that were advertised as primary entrepreneurship positions were 31% (54), 44% (83), 40% (74), and 44% (94). This past year we saw the largest number of primary positions ever documented.

Figure 3:
Entrepreneurship Positions by Level of Interest

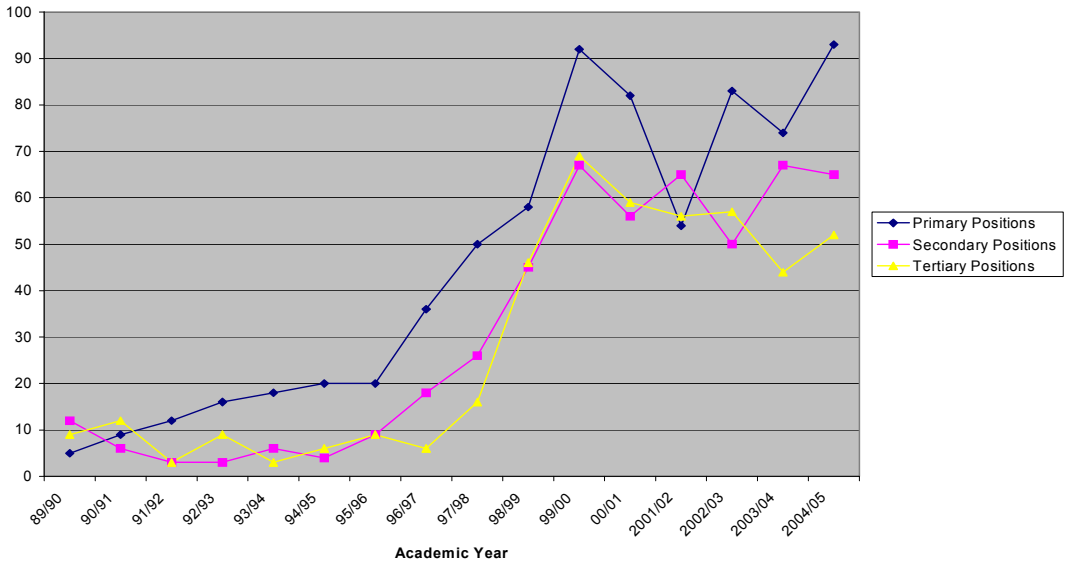
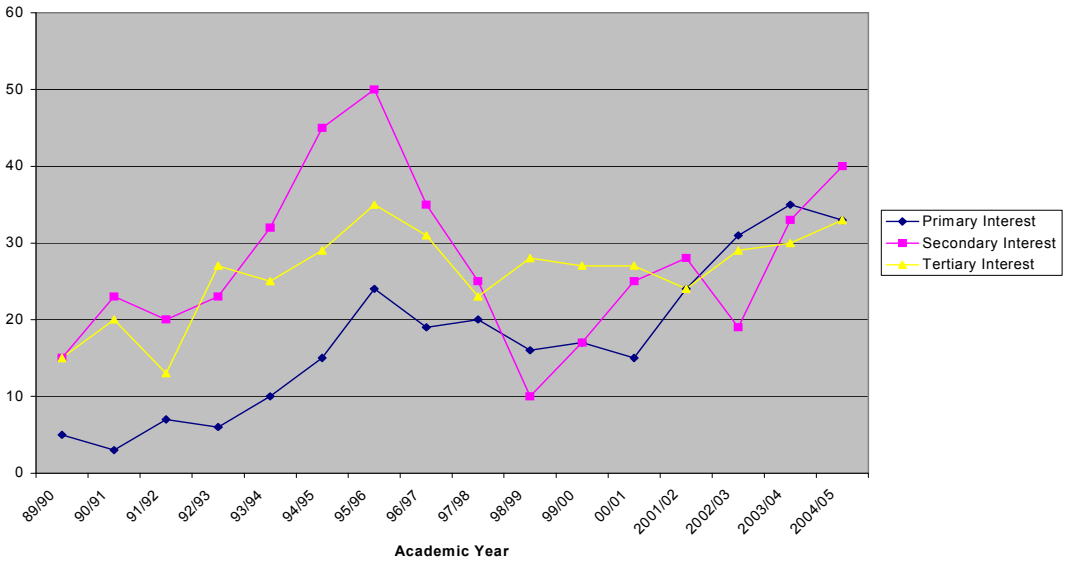


Figure 4:
Entrepreneurship Candidates by Level of Preference



These numbers are very encouraging because it indicates that the field is increasing the amount of resources towards entrepreneurship in general. If schools are hiring faculty with a

primary interest in entrepreneurship, this is evidence that they have committed considerable interest and resources to the field. The advertisement for a higher number of primary positions in the field is evidence that schools are increasingly adapting entrepreneurship as a focus into their curriculum.

Areas of Specialization

Table 3 and Figures 5 and 6 show the various combinations of expertise that were advertised by schools and candidates. The table is broken down into five categories: entrepreneurship only (the only area listed for the school or candidate), Strategy, International, OB/HR (Organizational Behavior/Human Resources Management), and TIM (Technology and Innovation Management). The percentages within each column indicate the percentage of positions or candidates that advertised for that particular area in their advertisement.

Table 3: Percentage of Applicants and Positions Cross-Listed by Field

	Candidates					Positions				
Academic Year	**Entrepreneurship Only**	**Strategy**	**International**	**OB/HR**	**TIM**	**Entrepreneurship Only**	**Strategy**	**International**	**OB/HR**	**TIM**
89/90	0%	63%	14%	23%	3%	15%	69%	38%	7%	0%
90/91	0%	80%	17%	15%	2%	28%	40%	12%	12%	0%
91/92	0%	68%	33%	30%	3%	67%	40%	0%	0%	0%
92/93	0%	73%	25%	21%	13%	65%	30%	26%	13%	0%
93/94	0%	73%	30%	16%	10%	61%	22%	13%	4%	4%
94/95	0%	71%	35%	19%	7%	74%	17%	9%	26%	0%
95/96	3%	65%	32%	28%	8%	35%	21%	15%	18%	3%
96/97	1%	73%	33%	26%	6%	37%	41%	22%	33%	8%
97/98	1%	79%	40%	43%	9%	48%	65%	27%	27%	8%
98/99	0%	74%	35%	15%	11%	47%	56%	27%	33%	15%
99/00	1%	60%	30%	21%	16%	24%	37%	15%	18%	14%
00/01	0%	76%	33%	19%	25%	26%	38%	18%	19%	16%
01/02	3%	80%	28%	16%	20%	18%	50%	21%	19%	12%
02/03	0%	72%	33%	25%	15%	25%	48%	16%	17%	9%
03/04	2%	72%	30%	14%	25%	25%	51%	19%	9%	10%
04/05	0%	68%	32%	16%	17%	22%	51%	18%	15%	11%

Figure 5:
Percentage of Entrepreneurship Candidates Cross Listing by Specialization

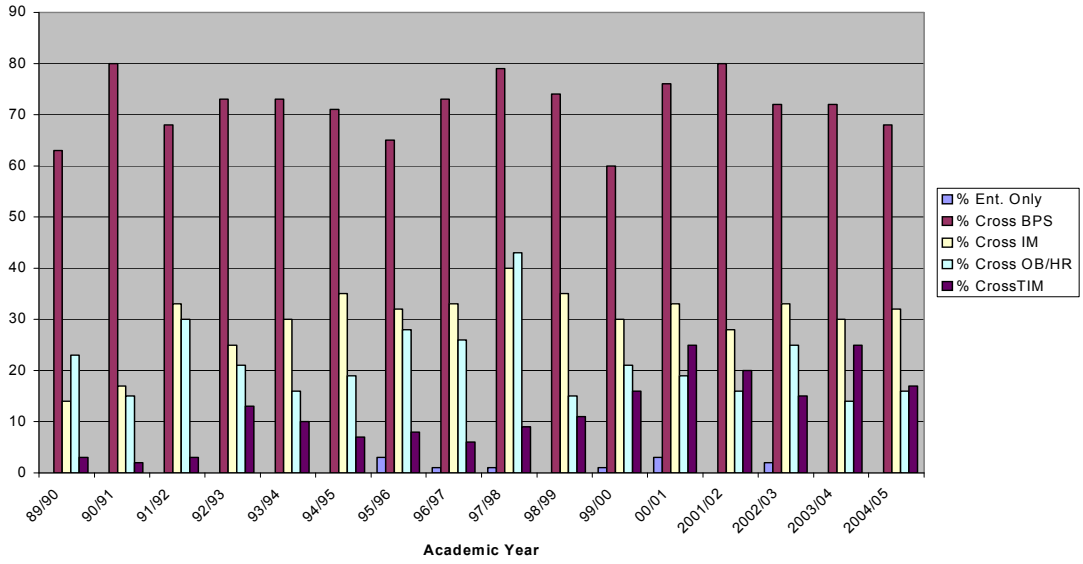
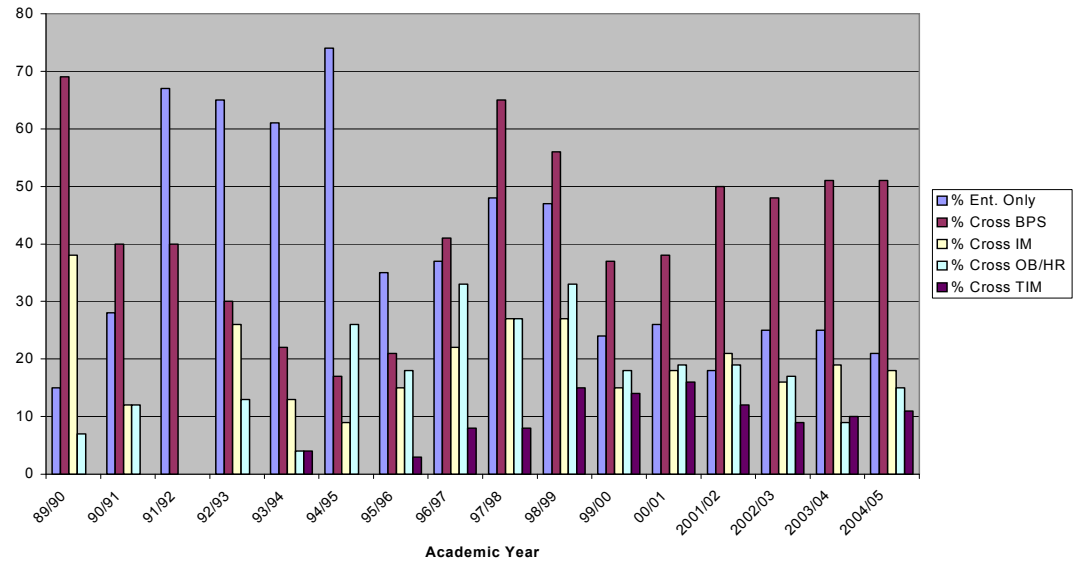


Figure 6:
Percentage of Entrepreneurship Positions Cross Listing by Specialization



The data indicates that entrepreneurship only positions started out very low in 1989/90 at 15% (4 positions). Entrepreneurship only positions grew steadily until 1998/90 where they peaked out at 47% (70 positions) and then steadily decreased until 2004/05 at 21% (45 positions). This is in contrast to entrepreneurship only candidates who also cross-list other areas to make themselves more marketable.

The data consistently show that the most popular areas that schools cross-list entrepreneurship positions with are Strategy, International, and OB/HR, excluding 2003/04. The most popular areas that candidates cross-list their advertisements with are Strategy and International. Historically OB/HR has been the largest selection of candidates, until the past four years. Starting in 2000/01, Technology and Innovation Management has become more popular than OB/HR in four out of the past five years. This is probably due to the increasing focus on technology in society and schools' curriculum.

Top 50 Schools

Table 4 and Figure 7 examine the trends related to faculty openings at the Top 50 Schools of Business and Management according to *The Gourman Report* (1989; 1993; 1996; 1997). Gourman (1993) based his rankings on a number of factors, which include: 'qualifications and professional productivity of the faculty, quality of instruction, faculty research, curriculum, placement of graduates and library resources.'

The *Gourman Report* rankings of graduate programs has been used as the basis for graduate school rankings in many studies that have appeared in prestigious journals such as the *Academy of Management Journal,* the *Journal of Finance, and Organization Science*. The Gourman rankings are particularly useful for longitudinal studies because the ranking system has remained consistent since 1987 (Finkle and Deeds, 2001).

From 1989/90-1997/98, the total number of Top 25 and Top 50 positions were 16 and 23, respectively. However, the real growth in hiring faculty at the top schools began in 1999/00 at the peak of the stock market bubble. From 1999/00 until 2004/05 the average number of Top 25 and Top 50 positions per year was 11 and 18. This compares to the previous five year window, 1994/95-1998/99, which had an average of 3.6 and 6.6 openings. Comparatively speaking, the number of job openings at Top 25 and Top 50 schools has dramatically increased over the past six years, while the ratio of tenure track entrepreneurship positions per candidate has dropped.

The International Market

The international market for candidates has grown significantly since the inception of the study (see Figure 8). In 1989/90 there were 0 positions at international schools. By 2000/01 that number peaked at 26 positions (13% of the total number of positions). As of 2004/05, the number

dropped to 17 positions or 8% of the total number of positions. The number of international positions has stabilized over the past few years.

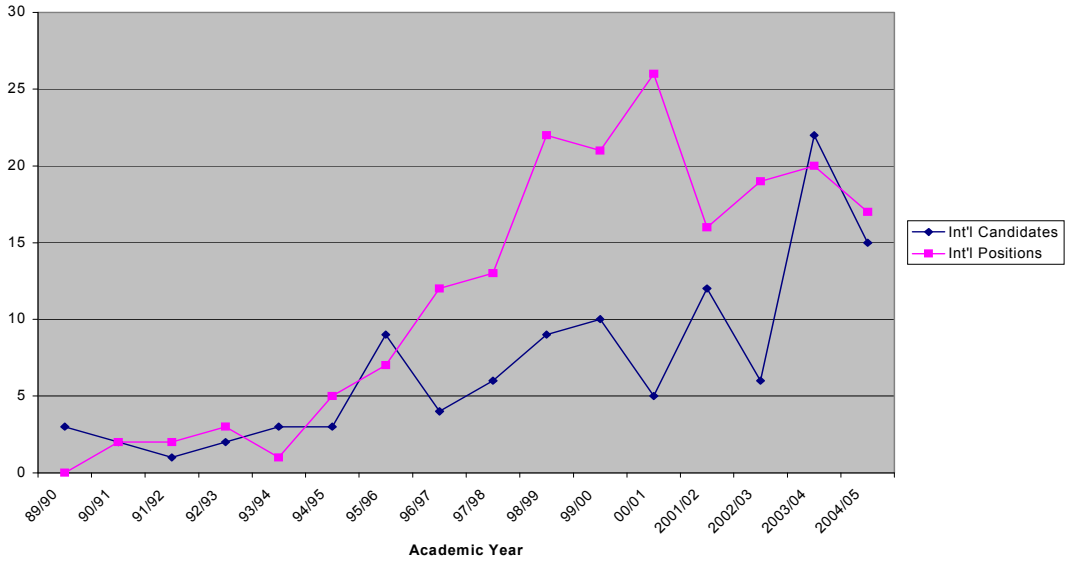
Table 4: Positions Advertised by Top 25 and Top 50 Schools from 1989-2005

	Top 25						Top 50			
Academic Year	Assistant	Associate	Full	Endowed	Total	Assistant	Associate	Full	Endowed	Total
89/90	0	0	0	0	0	0	0	0	0	0
90/91	0	0	0	0	0	1	0	0	0	1
91/92	0	0	0	0	0	3	0	0	0	3
92/93	0	0	0	0	0	1	0	0	0	1
93/94	1	0	1	0	2	1	0	1	0	2
94/95	0	0	0	0	0	4	0	1	0	5
95/96	1	1	0	0	2	1	1	0	0	2
96/97	2	5	0	0	7	3	6	0	0	9
97/98	3	1	1	0	5	9	1	1	0	11
98/99	2	2	0	0	4	2	3	1	0	6
99/00	5	3	2	2	12	9	3	3	3	18
00/01	5	1	6	0	12	11	1	7	0	19
01/02	6	1	1	1	9	8	4	1	3	16
02/03	6	1	2	2	11	11	3	4	4	22
03/04	5	3	1	2	11	8	4	3	4	19
04/05	2	4	1	1	8	4	7	5	3	19

The number of international candidates has grown from 3 in 1989/90 to 15 in 2004/05, a 400% increase. In 2003/04, we saw the highest number of international candidates ever, 22. The numbers indicate that international schools are increasing their training of doctoral students with expertise in entrepreneurship. This is quite evident at entrepreneurship conferences and journal articles where there is an increase in the number of entrepreneurship faculty at international schools publishing research.

The trend towards entrepreneurship becoming more international can be also be seen by the increase in the number of international journals focusing on entrepreneurship (e.g., the International Journal of Entrepreneurship Education, International Small Business Journal, etc.).

Figure 8:
International Entrepreneurship Applicants and Positions



AACSB Tenure Track Positions Advertised by State, 2004/05

Table 5 shows the total number of AACSB positions which were advertised in 2004/05. The table was broken down according to rank and interest. Each position was also identified whether or not it was a Top 50 school and/or an opening for a Director or Co-Director of a Center for Entrepreneurship.

The table show all 50 states and two Canadian provinces that advertised for entrepreneurship faculty. The results show that out of 184 total tenure track positions in 2004/05, 122 (66%) were tenure track AACSB positions. The ratio of tenure track AACSB positions per tenure track applicant is 122/102 or 1.2. This number is not as impressive as the ratio of tenure track positions per tenure track candidates (1.78), however demand still outpaces supply.

The largest number of jobs was located in the following states: Texas (8), California (7), Indiana (7), Virginia (7), Illinois (6), and Pennsylvania (6). Thirty-two states advertised for at least one primary tenure track AACSB position in entrepreneurship.

Overall, there were 67, 39, and 16 primary, secondary, and tertiary tenure track AACSB positions in entrepreneurship. The ratio of primary, secondary, and tertiary tenure track AACSB positions per candidate in the study is 2.03 (primary), .98 (secondary), and .48 (tertiary).

Out of the 64 (assistant), 59 (associate), 9 (full), 17 (endowed chair), and 35 (open) tenure track positions in the study, 38 (59%), 43 (73%), 4 (44%), 17 (100%), and 26 (74%) were at AACSB schools.

The ratio of tenure track AACSB positions per tenure track candidate by rank is the following: .51 (assistant), 5.4 (associate), 1.0 (full), 17.0 (endowed chair), and 2.33 (open).

Finally, the table shows that there are 15 jobs at Top 50 schools and 7 advertisements for a Director or Co-Director of an Entrepreneurship Center.

Table 5: AACSB Tenure Track Positions Advertised by State, 2004/05

State	Totals			Assistant			Associate			Full			Endowed			Open		
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
Texas	**4**	**2**	**2**		1*		2	1	1			1	2 (1**)					
California	**5**	**2**		1			2	2								2		
Indiana	**3**	**3**	**1**		1	1	1	2(1*)					2(1*)					
Virginia	**2**	**5**			1			2					1			1	2	
Illinois	**3**	**1**	**2**	1*				1					1			1*		2(1*)
Pennsylvania	**2**	**3**	**1**	1		1	1	3(1*)										
New York	**3**	**2**		1	1		1*	1					1			1**		
Oregon	**3**	**2**		2	1		1*(**)	1										
Georgia	**3**	**1**	**1**	2	1		1		1									
N. Carolina	**3**	**1**	**1**	2	1	1		1					1				1	
New Jersey	**1**	**2**	**2**	1		2		2										
Ohio	**4**			2			2										1	
Washington	**3**	**1**		1				1*		1			1*			1**		
Michigan	**3**			2												1		
Colorado	**2**	**1**					1	1*								1*(**)		
Florida	**2**	**1**											2				1	
Massachusetts	**2**		**1**	1*		1										1		
Utah	**1**	**1**	**1**					1								1		1
Minnesota	**2**						1						1*(**)					
Missouri	**2**												1			1**		
Ontario, CAN	**2**															2		
New Hamp.	**1**	**1**											1				1	
Arkansas	**1**	**1**						1								1		
Arizona	**1**	**1**			1*								1*					
Kansas	**1**	**1**			1		1											
Idaho			**2**			1			1									
Alabama	**1**			1														

Table 5: AACSB Tenure Track Positions Advertised by State, 2004/05																		
State	Totals			Assistant			Associate			Full			Endowed			Open		
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
Iowa	**1**															1		
Louisiana	**1**												1*					
Maine	**1**												1					
North Dakota	**1**									1								
Rhode Island	**1**									1								
Tennessee	**1**			1													1	
Wyoming	**1**						1											
Maryland		**1**						1										
Mississippi		**1**															1	
Montana		**1**			1													
Oklahoma		**1**						1										
South Carolina		**1**						1*										
West Virginia		**1**						1										
Ottawa, CAN		**1**			1													
Wisconsin			**1**						1									
Nebraska			1			1												
Alaska																		
Connecticut																		
Delaware																		
D. C.																		
Hawaii																		
Kentucky																		
Nevada																		
New Mexico																		
South Dakota																		
Vermont																		
Totals	67	39	16	19	11	8	15	24	4	3	0	1	17	0	0	15	8	3

1: Primary Position; 2: Secondary Position; 3: Tertiary Position; * Top 50 school;
** Director or Co-Director of Entrepreneurship Ctr.

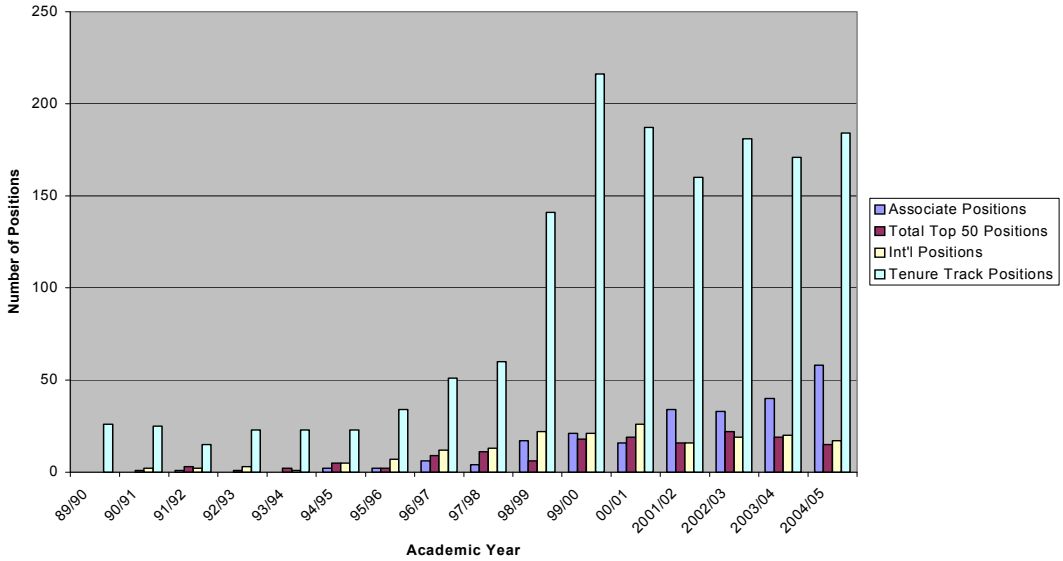
DISCUSSION

The purpose of this study was to determine if the field of entrepreneurship has become more institutionalized by focusing on faculty trends from 1989/90 through 2004/05. The findings of this study indicate that the field has made significant progress in becoming more institutionalized since Finkle and Deeds's initial study in 2001.

Overall, the results indicate that the market for entrepreneurship faculty is currently a seller's market with 212 positions and 106 candidates. However, a more in depth exploration, which looked at tenure track and AACSB positions, found that there were 1.2 tenure track AACSB positions per tenure track candidate. This is considerably less than the ratio of 2 positions per candidate as indicated in Table 1, or the 1.78 tenure track positions per tenure track candidate in Table 2.

In response to the research question in the study, the field of entrepreneurship is increasing its institutionalization on a number of fronts (see Figure 9). Over the past five years, Schools of Business and Management have committed more resources to the field of entrepreneurship by seeking a larger number of tenured or tenure track faculty with expertise within the field. This can be seen by the ratio of tenure track positions per candidate. The numbers have improved from a low of .43 positions per candidate in 1994/95 to 1.78 positions per candidate in 2004/05 (+314%). This commitment of resources implies that schools are recruiting more full-time, tenure track entrepreneurship faculty, which shows that the field has made an imprint and is becoming more mainstream.

Figure 9:
General Trends



Another indication that Schools of Business and Management have become more institutionalized is through the recruitment of more established scholars in the field. Over the past five years, the percentage of senior positions available has doubled since the early years of the study. From 1998/99 through 2004/05, the percentage of senior level positions has ranged from 55%-72%. This is in contrast from 1989/90 through 1995/96 where 25%-40% of the positions were targeted for senior faculty.

There are several possible explanations for the increasing trend towards the recruitment of senior faculty. For example, new entrepreneurship programs have been popping up all over the world. Schools may want senior level faculty that bring instant recognition and legitimacy to a program. Furthermore, the cost and timing of training new faculty with expertise can be extremely costly. There is also a lack of Ph.D. programs in the field of entrepreneurship (Brush, Duhaime, Gartner, Stewart, Katz, Alvarez, Meyer, & Venkataraman, 2003). As a result, there are not as many experienced faculty in entrepreneurship. According to Kuratko (2005), there is a shortage of entrepreneurship faculty at every rank. There has also been a large increase in the number of endowed chairs. Katz (2004) reported that there are 563 endowed chairs in entrepreneurship, free enterprise or family business all over the world. Furthermore, Finkle, Kuratko, and Goldsby (2006) found that there are now 146 entrepreneurship centers in the U.S. alone. Furthermore, retirements and deaths may have influenced the increase in demand for senior faculty.

One of the most significant factors in recruiting senior faculty is the instant legitimacy a program gains through a senior faculty member's reputation. A senior faculty member brings experience not only in teaching, but a research record that merits national or international recognition. A faculty member with brand name recognition can bring social capital, resources, fame, and assist in the growth of a program much quicker than tenure track junior professors. An excellent example of this is Indiana University's creation of a Ph.D. program in Entrepreneurship. To achieve this, they recruited some of the most established entrepreneurship scholars to join their faculty.

Institutionalization of the field of entrepreneurship can also be seen by the increase in the percentage of primary entrepreneurship positions. The past six years have seen a significant rise in the number of primary positions that were advertised. This past year there were 67 tenure track AACSB primary positions and only 33 candidates for a ratio of 2.03 positions per candidate. These numbers indicate that the field is increasing the amount of resources towards hiring mainstream faculty with a primary responsibility in the field of entrepreneurship.

The significant increase in the number of faculty that are being recruited by Top 50 Schools of Business and Management over the past six years is also convincing evidence that the field is becoming more institutionalized. This trend is especially noteworthy since the field of entrepreneurship has been criticized for its lack of a theoretical foundation and a lack of legitimacy (Busenitz, et al., 2003; Katz, 2003; Kuratko, 2003). Despite these criticisms, more and more top schools are joining the bandwagon of entrepreneurship.

Finally, the results of the study indicate that the field is becoming more institutionalized on a global level. The numbers show that international schools are increasing the training of their doctoral students with expertise in entrepreneurship. The number of international candidates has grown from 3 in 1989/90 to 15 in 2004/05 (+400%). Furthermore, in 1989/90 there were 0 positions at international schools, however by 2004/05 there were 17 positions or 11% of the total number of positions. In 2004/05, the ratio of international positions to international candidates was 1.13.

In summary, the findings of this study confirm the trend that entrepreneurship is becoming increasingly legitimized within Schools of Business and Management. Katz (2003) and Kuratko (2005) also agree that the field has become more legitimized. Katz's (2003) argument is that our infrastructure numbers of 300 endowed positions, 100 centers, 44 academic journals, and the "legitimization" of the field by mainstream media (Business Week and U.S. News and World Report) are proof. Kuratko (2005) points out that entrepreneurship education has exploded to more than 2,000 courses at over 1,600 schools and mainstream management journals are devoting more issues (some special issues) to entrepreneurship.

Recommendations to Candidates

The findings of this study indicate that there are opportunities for doctoral students who are interested in studying entrepreneurship as a career in academia. The findings are especially encouraging to entrepreneurship faculty who are interested in pursuing a primary area in entrepreneurship. There is also a plethora of opportunities for senior faculty (e.g., 96 endowed chairs over the past 6 years). Furthermore, the trend towards hiring associate professors has increased every year (excluding 00/01 and 02/03) since the initiation of the study. Ninety or 75% of all of the tenure track AACSB positions for 2004/05 were for associate, full, endowed chairs, or open positions.

Today is one of the best times to be an experienced faculty member in the field of entrepreneurship. However, candidates for these positions as well as junior level positions need to be aware that Schools of Business and Management's have extremely high expectations for entrepreneurship faculty.

Candidates need to be aware that the most popular fields that were cross-listed with entrepreneurship in 2004/05 were Strategy, International, OB/HR, and TIM. Over the past six years TIM has made significant progress, however, OB/HR still beat out TIM this past year, 15% versus 11%. Therefore, it is recommended that candidates specialize at a minimum in Strategy and International.

If candidates are interested in a position at a Top 50 school, this is one of the best times in the history of the field. In 2004/05, 15 (30%) schools in the Top 50 advertised for entrepreneurship positions, 11 were for senior level faculty including 4 for endowed chairs. Entrepreneurship faculty who decide to take a Top 50 position need to be cautious about how the school values

entrepreneurship research. Most top schools require research in the top management journals (e.g., *Academy of Management Journal, Academy of Management Review, Strategic Management Journal*, etc.). While this may seem reasonable, a recent study published by Busenitz, et al., (2003) found that from 1985-1999 only 2% of 97 articles published in the top management journals were in the field of entrepreneurship despite 13% of the membership in the Academy being comprised of entrepreneurship members. This trend appears to be changing slowly with the introduction of a few special issues in the *Academy of Management Journal* and *Strategic Management Journal* devoted to entrepreneurship. Additionally, several leading entrepreneurship scholars are now on the editorial boards of leading management journals. In conclusion, candidates need to determine up front how a school values each type of research (especially research in entrepreneurship outlets).

The trend in international entrepreneurship positions has picked up dramatically over the past seven years. International candidates have not kept pace with this demand, thus there are opportunities for faculty to enter the international markets.

Overall, the findings of this study indicate that there are opportunities for faculty entering academia and senior faculty looking to move to other institutions. However, all faculties must use caution when looking for a new job. Due to the newness of the field, lack of qualified faculty, and lack of resources, many schools rely on one faculty member to perform all of the duties of an entrepreneurship program (e.g., teaching, research, running an entrepreneurship center, etc.). Young faculty need to be careful not to get sucked into a vacuum, which could potentially destroy a faculty member's ability to perform research and earn tenure.

The decision as to where to take a job is complex today. The type of institution (e.g., research, teaching or balanced schools; public or private) will each have their own expectations for faculty. The strength of the existing entrepreneurship area will also determine a school's expectations. Furthermore, schools differentiate themselves through their specializations (e.g., franchising, family business, corporate entrepreneurship, technology transfer, etc.).

Besides the typical academic questions that a candidate must ask, it is recommended that candidates learn as much as possible about the school and region's financial health. A variety of factors should be taken into consideration by a candidate, especially at smaller schools who are more vulnerable due to budget cutbacks and lower enrollments. Candidates need to be aware of enrollment trends. Candidates also need to be aware of local, regional, national, and international competition from other schools and online universities. Online education is one of the fastest growing industries. Candidates must examine the financial stability of the university they are seeking employment with. Some other crucial questions candidates need to consider are: What are the priorities of the current administration? How does the administration value faculty? Has the school tapped their endowment? If it is a public university, what percentage of tuition does the state cover? What is the trend? What is the attitude towards higher education locally and state-wide? What affect has the rise of tuition had on enrollment

Recommendations to Colleges of Business and Management

The findings of this study have positive and negative ramifications for Colleges of Business and Management. If a College has a doctoral program in Entrepreneurship, then the results are encouraging. Overall, the current supply of entrepreneurship faculty is not keeping pace with demand. Directors of doctoral programs can show these results to their Deans to obtain resources for their programs. However, it must be noted that there are only 1.2 tenure track AACSB positions to every tenure track candidate.

On a positive note, the number of tenure track candidates seeking positions in 2004/05 was 102. While this seems encouraging, it must be noted that out of these 102 tenure track candidates, only 33 had a primary interest in entrepreneurship. Therefore, there continues to be a shortage of entrepreneurship faculty with a primary interest in the field. This confirms one of the major weaknesses in the field, a lack of schools that train doctoral students and a lack of full fledged Ph.D. programs in entrepreneurship.

In 1990 there were no schools reporting doctoral programs in entrepreneurship, however by 1997 there were five schools with organized Ph.D. programs in entrepreneurship (Wharton, Calgary, Georgia, Joenkoeping International Business School and the European Doctoral Program in Entrepreneurship) and numerous students at leading institutions (Wisconsin, Harvard, UCLA, Indiana, Purdue, Minnesota, North Carolina) studying entrepreneurship in non-organized programs (Katz, 1997; Robinson & Hayes,1991; Solomon & Fernald, 1991). Brush et. al., (2003) and Busenitz et al., (2003) reported a need to create new programs for doctoral students in entrepreneurship. A few schools have taken advantage of this opportunity (e.g., Babson College, Florida International University, Indiana University, University of Louisville, and Syracuse University). However, the results of this study indicate that we are not producing the appropriate number of doctoral students with a primary interest in entrepreneurship. As a result, schools continue to fight for the best and brightest entrepreneurship faculty.

Finally, given the increase in competition from online and corporate universities (e.g., Trump University, University of Phoenix, etc.) and the overall decrease in MBA enrollment, these factors could have a significant effect on a program. Given the nature of our field and our innate ability to become entrepreneurial, the true test of who survives and flourishes will be dependent on the innovativeness of a school's faculty. Schools who fail to innovate and market their products appropriately will die. Overall, the growth should be with undergraduate entrepreneurial education due to the shear numbers. However, with the increasing globalization of education, there will still be niches for graduate education. For example, executive education and non-credit programming will drive graduate entrepreneurship more so in the future due to the increasing costs associated with getting an MBA and increasing numbers of layoffs and older people starting businesses.

Limitations

This study had a few limitations. First, a few of the advertised positions may not have received funding or were never filled. Second, some schools and candidates do not advertise, but contact each other indirectly. Therefore, some of these positions might not be included. Third, sudden retirements or professors switching universities may skew the results. Fourth, the study may not have captured the comprehensiveness of the international markets. I assume that many of the international schools and applicants have other means of advertising and marketing themselves in the international marketplace. Finally, just because a school was not AACSB accredited, does not necessarily mean that the school lacks quality. This is especially true for some of the international schools, which choose not to be AACSB accredited.

Future Research

A number of research topics can focus on the legitimization of the field of entrepreneurship. Future studies could compare these employment trends with the employment trends in other areas (e.g., marketing faculty). Future research also needs to be done on tenure decisions to determine if faculty are earning tenure. How do other faculty perceive entrepreneurship faculty in terms of their research and overall productivity? All aspects of their tenure decisions need to be evaluated, especially the research dimension due to the criticism that the field has garnered over the years for its lack of a theoretical basis. By determining the variables that are related to successful tenure decisions in the field of entrepreneurship, we can make a giant leap forward to becoming a truly institutionalized field.

Longitudinal research also needs to be done on what happens to faculty before and after they earn tenure. Do they remain in entrepreneurship positions or do they return to more mainstream positions like strategic management or organizational behavior?

Finally, an important research topic of benefit for everyone in the field would be the investigation of current salaries for all faculty obtaining jobs over the past few years. It is important to determine what the current trends are so we can benchmark our salaries versus other fields.

CONCLUSION

In summary, this study has outlined the many ways in which field of entrepreneurship has made significant strides towards becoming more institutionalized. However, the field is still not fully institutionalized. We still do not have a significant number of departments, entrepreneurship is not a required course at universities, and the jury is still out on whether entrepreneurship faculty are earning tenure. The findings indicate that there is a demand for entrepreneurship faculty,

especially senior faculty. This is very promising for young Ph.D. students and junior faculty looking to move up in the field. Entrepreneurship has arrived and is not going anywhere for a long time.

REFERENCES

AACSB (2005). The association to advance collegiate schools of business. http://www.aacsb.edu/accreditation/

Academy of Management Placement Roster. Academy of Management Placement Service. Auburn University, AL. Used all volumes from 1989-2004.

Brush, C., Duhaime, I., Gartner, W., Stewart, A., Katz, J., Hitt, M., Alvarez, S., Meyer, GD., & Venkataraman, S. (2003). Doctoral education in the field of entrepreneurship. *Journal of Management,* 29(3), 309-331.

Bruton, G. & Ahlston, D. (2003). An institutional view of China's venture capital industry: Explaining the differences between China and the West. *Journal of Business Venturing*, 18, 233-259.

Busenitz, L., West, G., Sheperd, D., Nelson, T., Chandler, G. & Zacharakis, A. (2003). Entrepreneurship research in emergence: Past trends and future directions. *Journal of Management*, 29(3), 285-308.

Dacin, M.T., Goodstein, J. & Scott, W.R. (2002). Institutional theory and institutional change: Introduction to the special research forum. *Academy of Management Journal*, 45(1), 45-57.

Dowling, J. & Pfeffer, J. (1975). Organizational legitimacy: Social values and organizational behavior. *Pacific Sociological Review*, 18, 122-136.

Eisenhardt, K. (1988). Agency and institutional theory explanations: The case of retail sales compensation. *Academy of Management Journal*, 31(3), 488-511.

Finkle, T.A. & Deeds, D. (2001). Trends in the market for entrepreneurship faculty during the period 1989-1998. *Journal of Business Venturing*, 16(6), 613-630.

Finkle, T.A., Kuratko, D.F., & Goldsby, M. (2006). The State of Entrepreneurship Centers in the United States: A Nationwide Survey. 50th Anniversary Special Issue of the *Journal of Small Business Management,* 44(2), April, 184-206.

Gourman, J. (1989). *The Gourman Report* 5th ed. Los Angeles, CA: National Education Standards.

Gourman, J. (1993). *The Gourman Report* 6th ed. Los Angeles, CA: National Education Standards.

Gourman, J. (1996). *The Gourman Report* 7th ed. Los Angeles, CA: National Education Standards

Gourman, J. (1997). *The Gourman Report* 8th ed. Los Angeles, CA: National Education Standards

Katz, J. (1997). Core publications in entrepreneurship and related fields: A guide to getting published. www.slu.edu/eweb/booklist.htm.

Katz, J. (2003). A chronology of intellectual trajectory of American entrepreneurship education 1876-1999. *Journal of Business Venturing,* 18(2), 283-300.

Katz, J. (2004). "2004 Survey of endowed positions in entrepreneurship and related fields in the United States." Report Sponsored by the Kauffman Foundation. Pages 1-45.

Kuratko, D.F (2003). Entrepreneurship education: Emerging trends and challenges for the 21st century. *2003 Coleman Foundation White Paper Series for the U.S. Association of Small Business and Entrepreneurship*. Madison, WI: USASBE.

Kuratko, D.F. (2005). The emergence of entrepreneurship education: Development, trends, and challenges. *Entrepreneurship Theory and Practice*, 29(5), 577-598.

Meyer, J.W. & Rowan, B. (1977). Institutionalized organizations: Formal structure as myth and ceremony. *American Journal of Sociology*, 83(2), 340-363.

Roberts, P. & Greenwood, R. (1997). Integrating transaction cost and institutional theories: Toward a constrained-efficiency framework for understanding organizational design adoption. *Academy of Management Review*, 22(2), 346-373.

Robinson, P. & Haynes, M. (1991). Entrepreneurship education in America's universities. *Entrepreneurship Theory and Practice*, 15(3), 41-52.

Scott, W.R. (1987). The adolescence of institutional theory. *Administrative Science Quarterly*, 32, 493-511.

Scott, W.R. (1995). *Institutions and Organizations*. Thousand Oaks, CA: Sage Publications.

Solomon, G. & Fernald, L., Jr. (1991). Trends in small business management and entrepreneurship education in the United States. *Entrepreneurship Theory and Practice,* 15(3), 25-40.

The Chronicle of Higher Education. Washington, D.C. Used all volumes from 1989-2005.

ESTABLISHING A CAMPUS-WIDE ENTREPRENEURIAL PROGRAM IN FIVE YEARS: A CASE STUDY

Kirk C. Heriot, Columbus State University
Leo Simpson, Western Kentucky University

ABSTRACT

Entrepreneurship and entrepreneurship education are widely recognized to have made tremendous progress in the U.S. over the past 20 years (Solomon, G.T., Duffy, S., & Tarabishy, A. 2002). In fact, some researchers suggest that the U.S. is far ahead of other regions in terms of entrepreneurship and entrepreneurial education. This paper uses a case study to analyze the efforts of an individual hired to develop a comprehensive new entrepreneurship program at a school with little or no history of entrepreneurship education.

Using a case study methodology, we describe the process used to build a comprehensive new program in entrepreneurship that will soon evolve reach 150 active entrepreneurial minors and the approval of a new major in entrepreneurship. We emphasize five issues that were central to the planning process that guided the creation of the program. These issues, described in the supporting literature were: what is taught, why it is taught, how it is taught, and how well it works (see Gorman and Hanlon, 1997; Vesper and Gartner, 1997; Solomon, Winslow and Tarabishy, 1998). To this list we add "leadership support." This research provides a unique look into the process of creating a comprehensive, new program in entrepreneurship. Given the continued interest in entrepreneurship that exists, this study provides the reader with a template for creating and maintaining a comprehensive program in entrepreneurship. More importantly, given the lack of formally trained entrepreneurship educators, this study provides a detailed assessment of the foundation and creation of a program that has grown from literally nothing to a comprehensive academic program of study in five years. While the specific objectives and milestones of any academic program are unique to that institution, this study may be used as a benchmark for the efforts of others to create their own comprehensive entrepreneurship program for their university or college.

INTRODUCTION

In 1980, fewer than 20 universities and colleges offered courses in entrepreneurship, while today more than 1,600 universities have at least one course in entrepreneurship (Solomon, G.T., Duffy, S., & Tarabishy, A. 2002). In fact, the growth rate of entrepreneurship among colleges and

universities in the U.S. is nothing short of phenomenal. Katz (2006) argues that the growth continues as we see entrepreneurship courses emerging in the arts, engineering, life sciences, and the liberal arts. Nonetheless, in spite of the fact that entrepreneurship is reaching a state of maturity (Katz, 2006), we continue to debate the definition of entrepreneurship (Fiet, 2001a and 2001b) and the place of entrepreneurship education within the academe (Kuratko, 2003; Katz, 2006). The continued debates suggest that entrepreneurship education is a maturing, yet highly fragmented field of study. In fact, Fiet (2001) argues that the literature on entrepreneurship education is still in a developmental stage. For this reason, we take the view that valuable lessons may be learned from the experiences of successful entrepreneurship programs.

Thus, the purpose of this study is to describe the efforts of one university to create and maintain a comprehensive program in entrepreneurship at a school with little or no history in entrepreneurship education (We define a *comprehensive* program in entrepreneurship as a program with more than simply an academic interest. A comprehensive program goes beyond simply adding some courses to the curriculum. A comprehensive program also emphasizes service, outreach and research objectives). As entrepreneurship education is still in the exploratory stage (Gorman and Hanlon, 1997), our choice of a research design was influenced by the limited theoretical knowledge researchers have of entrepreneurial education (Fiet, 2001a and 2001b). In such a situation, it is appropriate to use a qualitative research method in order to gather the necessary information (Eisenhardt, 1989; Yin, 1994). By examining in depth a single program of development, factors and procedures can be identified that have more universal application and learning curves can be enhanced to increase the speed and effectiveness of entrepreneurial program development. The current research necessitated that observations be made of the process of starting a new entrepreneurship and small business center in great detail. Thus, a research method described by Audet and d'Amboise (1998) was adopted which was broad-minded and flexible. As in this study, the goal of this analysis is "to combine rigor, flexibility and structure without unduly restricting our research endeavor" (Audet and 'Amboise, 1998, p. 11 of 24).

We use a case study design (Yin, 1994) to describe the efforts of a regional, public university to develop and operate a comprehensive entrepreneurship program. The literature suggests that many models of entrepreneurial education are followed (Katz (2006); Kuratko (2003); Katz (2003); Fiet, 2001a, Solomon, et al., 2002, and Shepherd and Douglas, 1997), using a variety of pedagogies (Solomon, et al., 2002), in many American colleges and universities. Recent studies in entrepreneurship (St. John and Heriot, 1991; Abdel-Latif and Nugent, 1996; and Rialp-Criado, Urbano and Vaillant, 2003) have demonstrated that case research has a high exploratory power and allows dynamic, decision-making processes to be more deeply investigated (Audet and d'Amoise, 1998).

This approach describes the process of creating this new program using a three-step approach. First, the extant literature is surveyed to sample the models for creating and operating an entrepreneurship program and small business or entrepreneurship center. Second, the current

situation in the university at the time the charge was made to create an entrepreneurship program is evaluated. Next, the steps that were taken to build a program in entrepreneurship are systematically evaluated leading to the development of an entrepreneurial program. Lastly, we discussion the conclusions of this study.

SUPPORTING LITERATURE

The literature on entrepreneurship education is still in a developmental stage (Fiet, 2001a). This conclusion is startling when one considers just how far entrepreneurial phenomena have come in the last thirty years. As noted earlier, more than 1600 universities and colleges now offer at least one course about entrepreneurship or small businesses (Solomon, et al, 2003). Yet, considerable fragmentation exists among scholars and teachers about how to define entrepreneurship (Fiet, 2001a) and how to best teach entrepreneurship (Solomon, et al, 2003).

Entrepreneurship education has been evaluated from a variety of perspectives including what is taught, why it is taught, how it is taught, and how well it works (see Gorman and Hanlon, 1997; Vesper and Gartner, 1997; Solomon, Winslow, and Tarabishy, 1998). The problem with assessing entrepreneurship education is that no generally accepted pedagogical model has been adopted in the U.S. or Europe (Solomon, et. al. 2003). Given that some researchers suggest that "[t]he concept of entrepreneurship is inadequately defined [, and] this lack of a clear entrepreneurship paradigm poses problems for both policy makers and for academics" (Carton, Hofer, and Meeks, 1998, p.1 of 11), the state of entrepreneurial education cannot be too surprising. If we cannot agree on the phenomena we are discussing, it becomes very difficult to develop a curriculum or build an academic program based upon those phenomena.

Solomon, et al. (2003), discuss the results of a twenty-year investigation of teaching entrepreneurial education and small business management in the U.S. Their data is based upon six national surveys. They believe a trend exists toward greater integration of practical applications and technology. They note that new venture creation, small business management, and small business consulting remain the most popular courses in the field.

Shepherd and Douglas (1997) argue that entrepreneurial education falls into four categories. These categories are as the Old War Stories approach, the Case Study approach, the Planning approach, and the Generic Action approach. The "*Old War Stories" Approach* provides a series of success stories told by entrepreneurs. The emphasis is upon experience, intuition, and judgment. The leader's innate qualities are emphasized without any recognition of the contribution of the organization or the environment. This approach uses very little theory and emphasizes anecdotal evidence. The "*Case Study" Approach* assumes that entrepreneurship is "a process that is a controlled and conscious thought process" (Shepherd, et al., 1997, p. 4 of 10). Mintzberg (199) argues that this perspective assumes that formulation can be separated from acting, as if the world stands still while the planning occurs. The "*Planning" Approach* breaks a controlled, conscious

process into a series of steps that lead to a full-blown strategy, often in the form of a business plan. Meyer (2001) argues that the use of business plans may be problematic. He questions whether we have validated the hypothesized positive relationship between business plans and firm performance. Shepherd, et. al. (1997) also question its usefulness because the very nature of planning is designed to extrapolate known trends. Thus, the planning process is too inflexible to accommodate the entrepreneurial spirit. The "*Generic Action" Approach* is linked to the competitive markets model. It assumes that market forces, such as bluffing, price deterrence, and the timing of entry, dictate action. "Once formulated, there is no need for initiative, 'only' implementation" (Shepherd, et al. 1999, p. 5 of 10). This approach argues that after scanning the environment, the entrepreneur will be able to draw appropriate conclusions necessary to move in the right direction. Shepherd, et al., are critical of this approach, arguing that this form of entrepreneurship education emphasizes the science of entrepreneurship while ignoring the art of entrepreneurship. Sheperd, et. al. emphasize the importance of creative thinking and learning throughout entrepreneurship education. They believe entrepreneurship should be taught so that the direction is deliberate but the details are emergent.

Leo Dana (1992) surveyed 55 universities in Europe having a business school, and he describes a variety of programs in France, Spain, Germany, the United Kingdom, Italy, Denmark, Switzerland, Norway, and Sweden. Dana states that in some European countries "culture and social policy are such that entrepreneurs are not looked upon as necessarily good elements…."(Dana, 1992, p. 80). He concludes that Europe's strength in entrepreneurial education is its their practical approach. He also believes Europe has spread its entrepreneurship education programs to rural areas more so than the U.S. He expresses concern that Europe emphasizes small business education more than entrepreneurship and that Europe has not developed doctoral programs in entrepreneurship as are found at several U.S. universities. Dana experiences some ambiguity regarding the term entrepreneurship. While he recognizes an emphasis on small business management in Europe, he categorizes these types of programs as representative of the "state of *entrepreneurial* education in Europe" (Dana, 1992, 75, italics added), confusing small business and entrepreneurship. His research ignores the Small Business Instituteä (SBI) program in the U.S. At the time of his data collection (circa 1991-1992), the SBI program was flourishing in the United States as it was funded through the U.S. Small Business Administration. In 1992, the SBI program had approximately 500 members, colleges and universities that provided student-based consulting on behalf of small businesses, some of whom were entrepreneurial firms (www.sbida.org).

Twaalfhoven (2001) provides some interesting comparisons between the U.S. and European funding for entrepreneurship education that are more current than Dana's (1992) study. His research of 22 European and 47 North American business schools shows that U.S. business schools have six times more funds for entrepreneurial research than their European counterparts, as well as three times more professors and three times more courses in entrepreneurship. Amazingly, among his sample of schools, U.S. business schools receive 20 times more funding from alumni and

entrepreneurs than European business schools. Clearly, these findings cannot be generalized to all American universities. The resources available to colleges and universities for new programs varies considerably.

In their research, Vesper and Gartner (1997) present the survey results of ranked university entrepreneurship programs. The top seven criteria for ranking these programs were courses offered, faculty publications, impact on community, alumni exploits, innovations, alumni start-ups, and outreach to scholars. While some American universities may wish to focus on these criteria as they develop a new entrepreneurship program, it remains to be seen if these criteria are meaningful or affordable for all universities. Issues such as accreditation, program funding, faculty, goals, and current programs clearly will impact the importance of these criteria for anyone wanting to create a new, comprehensive program in entrepreneurship.

RESEARCH METHOD

As noted earlier, this research adopts a qualitative research design in keeping with the desire to show a single program development strategy with implications for benchmarking by others. While it is understood resources and goals widely vary among different types of universities, much can be learned from the successful development of an entrepreneurial program that would have implications for the creation of applications in other locations in the U.S.

Background

In a large, public university in the south, an Endowed Professor in Entrepreneurship was hired to "develop the spirit of entrepreneurship." Prior to joining the university, the new endowed chair served as the Director of a Small Business Institute program for 30 years and as a professor of entrepreneurship at a regional western university. During this time he supervised over 500 student consulting projects with businesses in the area. In addition, he gained prominence as an officer in two academic organizations devoted to the study of entrepreneurship and small businesses.

The University

The university was a comprehensive university with a student body of approximately 17,000 students at the time the endowed chair was hired. The university has programs of study in Education and Behavioral Science, Health and Human Services, Business, Arts, Humanities, and Social Sciences, and Science and Engineering. The university also owns a two-year community college about two miles from the main campus. The university has 88 academic majors and 57 academic minors. In addition, it offers the master of arts, master of arts in education, master of business administration, master of science, master of music, master of public service, the master of public

administration, and a cooperative doctorate in education administration with the state's Land Grant University.

In the following paragraphs, we describe his efforts, as well as those of his colleagues and the administration, to create a comprehensive program in entrepreneurship. Procedures and strategies indicating why and when things were done are described in some detail. Concurrent developments within the University and community are included to provide a context for how the current infrastructure was developed.

Evolution and Development

In hindsight, one observes five distinct stages of development of the comprehensive program in entrepreneurship. However, these stages were not clearly distinguished at the time different initiatives and programs were being considered and developed. Nonetheless, we use them as a loose way of describing the many activities that occurred between August 2001 and the present day. Table 1 shows the significant milestones that have occurred since the program was begun in 2001.

Stage one involved the initial efforts to create a program that was recognized by colleagues in and outside the College of Business. In August 2001, this regional public university did not have an entrepreneurship program. The President and other administrators, including the Dean of the College of Business, brought to campus a new endowed chair with the charge of developing an entrepreneurship program and assigned this individual in the management department. The President had recently demonstrated his own entrepreneurial skill by privatizing the dorms and food services on campus leading to a huge success in both endeavors. When this individual arrived on campus in August 2001, the only course on campus directly related to entrepreneurship or small business was a course in Small Business Finance.

Upon arriving on campus, the strategy was to fully assess the situation recognizing potential opportunities, and roadblocks and then penetrate into the consciousness of the faculty and administration. The visibility of continuous development has been one of the foundations of program strategy. The assessment included opinions, political culture, attitudes, options, and financial resources available. It was determined that a few members of the faculty in several departments were generally supportive, but lacked power. Politically, the resource allocation system was (and remains) based upon student-credit-hours (SCH), so departmental chairs within the College of Business were defensive of existing courses and the allocation of faculty to those courses. They were also somewhat resistant to the creation of new courses as they might compete with existing electives. Administratively, the Dean and Management Department chair were very supportive. Financial resources available in the endowed chair account were considerable and there were also substantial developmental funds available in various foundation accounts in the Dean's office.

To establish visibility and initial penetration, a new course was established in entrepreneurship at the junior level (no prerequisites) in the undergraduate program and also as an

elective in the MBA. This course was taught in the first semester and resulted in the determination that initially focus should be placed upon developing the undergraduate entrepreneurial initiatives. While a few courses would be taught at the MBA level over the next five years, MBA entrepreneurial development was postponed until the undergraduate program could be fully developed.

Table 1. Summary of Milestones for a Comprehensive New Program in Entrepreneurship

Milestone	Date	Comment
Assessment of Situation	Fall 2001 to Fall 2002	Continuous Strategic Process
Development of Penetration Strategy	Fall 2001 to Fall 2002	AACSB Continuous Improvement Efforts are Used
Create Entrepreneurship Class	Fall 2001	Offered each fall and spring since August 2001
Establish Small Business Institute Capstone Course	Spring 2002	Very popular among all business students
Create Faculty and Departmental Incentives	Fall 2002	Ongoing
Get Other Departments Involved	Spring 2003	Evolving Process as non-business departments are contacted
Establish Financial Support	Spring 2003	Ongoing
Gain Political and Organizational Support	Fall 2001 through Spring 2003	Pervasive
Add Entrepreneurship Faculty Position	Spring 2003	Stable as of Fall 2006
Encourage Interdepartmental E-ship courses	Spring 2003	Continues as Needed
Build a Critical Mass of E-ship Courses	Fall 2004 to Spring 2005	Ongoing as a new major is being proposed
Establish Cross Disciplinary E-ship Minor	Fall 2003 to Spring 2005	Continuous Process; currently have 127 students in minor
Create Entrepreneurial Expo	Spring 2004	Held each spring since 2004
Develop Flexible E-ship Major	Fall 2005 to Spring 2006	Ongoing
Create Entrepreneurship Center and Get Funding	April 2004; April 2005	Continuous; more money is always a need

In addition to the entrepreneurial course, a critical step was taken in the second semester to propose a senior capstone course, Small Business Analysis and Policy, as an alternative to Business Policy. This course is designed to allow students to analyze local companies in teams, writing substantial consulting reports for the business and is associated with the Small Business Institute program (SBI). The strategy behind the introduction of this SBI course had several dimensions. First, because it is an option to the capstone course in the business core (approved by AACSB many times), it is guaranteed to generate 25-30 good students in their final semester. Secondly, the

eventual design of the minor in entrepreneurship would require business majors to elect to take this option since it provides an entrepreneurial capstone course. By establishing two of the courses required for the minor, it made it possible to increase the visibility of the program's development. Politically, the Strategy and Policy capstone was not popular and other department faculty were pleased to have an alternative.

In addition to these two courses, which are both offered through the Management Department, the existing course in Small Business Finance was changed to Entrepreneurial Finance by working directly with the faculty member and Finance Department chair. Departmental incentives were also approved to award $500 to any faculty developing an approved course in entrepreneurship once it was taught once. In addition four or five faculty was identified from multiple departments to attend a national entrepreneurship conference at the expense of the endowed account to encourage entrepreneurial research and course development. This incentive program resulted in successful course development and subsequent interest among faculty. Finally, recognition, appreciation, and support regarding faculty and department chair cooperation and contribution were delivered at faculty meetings, administrative meetings, and honor banquets. This publicity made it became more popular to be associated with entrepreneurship. The emergence from initial stage one development to stage two occurred during the second year of the program. The organizational culture of the University as well as the College of Business was developing entrepreneurially. The state government authorized developmental funds to launch Innovation and Commercialization Centers (ICCs) across the state. The local ICC was established in partnership with the University and was placed in a deserted mall acquired by the University's President. The endowed chair immediately became a partner and board member of the ICC. Simultaneously, planning for a Center for Entrepreneurship and Innovation (CEI) was initiated by the endowed chair. It would take a year for the CEI to become a reality during stage three.

In addition to planning for the CEI, in the second year a proposal was prepared to seek an additional faculty member in entrepreneurship and it was approved by the Provost. An Associate Professor of Entrepreneurship was hired for the fall of 2003. Three additional courses were developed in entrepreneurship during this second year stage two time period bringing the total to six courses. These six courses included three departments and provided a critical class in entrepreneurial marketing. This class was critical because it added a second level course in marketing to the minor and attracted a wide range of students to the minor who could also use the marketing course for other majors and minors. It also further involved the Marketing Department in the entrepreneurial minor. The six courses as previously mentioned were then packaged with courses throughout the university that would provide direct entrepreneurial relevance to majors across campus to create the minor in entrepreneurship. The minor was approved in the spring of 2003 with an initial start of fall 2003. The infrastructure to move into stage three in the fall of 2003 was now in place. Stage three in the third year witnessed significant visibility increases. The second faculty member in entrepreneurship immediately expanded the number of sections available in

entrepreneurship as well as increasing elective offerings from six to eight. These sections in entrepreneurship served as a recruitment ground for the entrepreneurship minor. Further, partnerships with the ICC and other evolving entrepreneurial initiatives were possible. The two entrepreneurial faculty developed a synergy expanding capabilities. This lead to the construction and creation of the Center for Entrepreneurship and Innovation (a $50k construction project), expansion to forty-four students in the Entrepreneurship Minor by the end of the first year, and the first annual Entrepreneurial Expo with over 100 people attending including local entrepreneurial speakers. Several other programs were done to enhance the visibility of the program such as the Small Business Institute program through the senior capstone course with 35 business analyses completed with 40-100 page consulting reports each.

In the fourth year of the program, stage three initiatives continued with an additional 15 business analyses, linkage of the Center for Entrepreneurship and Innovation with the ICC and other Centers such as the International Center and the Kelly Autism Program, and an increase in electives in entrepreneurship to nine courses. The additional electives were necessary to provide sufficient sections for students in the entrepreneurship minor to obtain their three required entrepreneurial electives. The Center for Entrepreneurship and Innovation was fortunate to have two people join the staff as Associate Director and Office Manager. Their contributions created a multiplier affect that greatly increased the effectiveness of the Center.

The Entrepreneurial Expo expanded to include a Business Plan Competition with $15,000 in prize money with well over 100 students and visitors in attendance including many community leaders. The entrepreneurial minor was expanded to be interdisciplinary with flexible designs for students majoring in engineering, the arts, agriculture and others. The number of students in the minor by the end of the second year increased to 77 students.

Finally in this last half of stage three in the fourth year, a successful Students in Free Enterprise (SIFE) team was created and in the first year won a regional championship, a national rookie team of the year award in their division, Best in the U. S. first place national competition and two out of four national categorical competitions. Projects completed in the community were the basis for their competitive edge. At this point toward the end of stage three, the entrepreneurial program and spirit had a significant momentum.

The fifth year of the program added another 15 business analyses through the Small Business Institute (Small Business Capstone). The number of students in the minor in entrepreneurship increased to 124 including students from majors all over campus. In addition, the Expo continued with 17 competitive business plans submitted and was networked with a major local private university. During the fifth year, numerous projects were carried out with the ICC, International Center, Hispanic Center, Autism Center and other community and University programs. There was a transition of the second faculty member to move toward their own endowed chair at another university, but a strong replacement was identified that has guaranteed continuity of the programs. Faculty, department heads, the new Dean of the College of Business, the Provost and the President

have all expressed total support for the continued development of entrepreneurial initiatives across campus. During the fifth year, the Center for Entrepreneurship and Innovation received a $35,000 operating budget from the Provost.

The student-led SIFE program has become a vital learning tool for students in the entrepreneurship program. It has received a great deal of publicity due to its successes. From the new Print Center on campus named for and operated by SIFE to the Presidents' recognition of the achievements of SIFE in the State of the University address, SIFE has continued to move beyond their initial first-year success in an effort to compete successfully at the national level in future SIFE competitions. At the end of the fifth year, SIFE won another regional competition, five of the six national categorical competitions, second in the nation in one of these categories, and number one in the SIFE Best in the U. S. Competition. In the fifth year, SIFE students completed 14 major community projects. Not only did the entrepreneurship minors walk away with all of the top honors given by the College of Business, many of them were selected for very lucrative jobs by national employers.

The beginning of year six (Fall 2006) represents the beginning of Stage Four. In addition to continuous improvement and visibility related development of all of the programs previously mentioned, a new major in entrepreneurship has been designed and will be proposed with expected approval this academic year. Major recruitment efforts across campus have put SIFE into a position to accomplish more and to be even more nationally competitive. The Provost approved and funded a Director for the Center for Entrepreneurship and Innovation, and three research publications in entrepreneurship are scheduled to be published this year.

The fifth stage of the program has yet to occur. It will come to fruition over the next 12 – 24 months as new initiatives are identified and current programs mature. The infrastructure is now almost in place to sustain the entrepreneurial programs without the leadership of the endowed chair. Distance learning, new revolutionary entrepreneurial major designs, expansion of entrepreneurship to the MBA, the addition of a second endowed chair in entrepreneurship (third faculty member) within three years from now, expansion of the SIFE team to over 100 members, continued growth of the E-ship Minor to 200, creation and development of the E-ship Major with over one hundred students, continued CEI program development, expansion of the Small Business Institute to over 60 businesses analyzed, linkage with the International Business major to conduct international entrepreneurial initiatives, and other visible continuous improvement entrepreneurial spirit developments represent part of stage four development in academic year six. Some of these programs will continue for the next two to three years before they become mature programs.

DISCUSSION

In order to assess all that has been discussed in this case study, we have chosen to emphasize five issues that were central to the process of creating and sustaining the program in

entrepreneurship. These issues are consistent with how other researchers have evaluated entrepreneurship education in the extant literature: what is taught, why it is taught, how it is taught, and how well it works (see Gorman and Hanlon, 1997; Vesper and Gartner, 1997; Solomon, Winslow and Tarabishy, 1998). The literature on organizational change emphasizes the importance of leadership. (NEED citation here). Thus, to this list we add "leadership support."

Leadership Support

Leadership support is not specifically discussed in the entrepreneurship education literature. However, the management literature emphasizes the importance of leadership support when pursuing any new initiative. Thus, this important issue is considered.

It would not have been possible to create a comprehensive program in entrepreneurship without the support and encouragement of the President, and, subsequently, the Provost of the university. Both of these individuals supported almost all of the new initiatives in entrepreneurship. Their support in the strategic management process was critical to new initiatives being approved and funded. Without their support, the efforts of the endowed faculty member would most likely have been limited to the creation of new courses in entrepreneurship rather than a comprehensive program that also included service, experiential learning, outreach, and research activities.

What Is Taught

The program in entrepreneurship started with a whimper rather than a bang. The reason for such a less than stellar start was simply the reality that the program started from scratch with only one faculty member assigned to entrepreneurship. Thus, the program did not have the capability to offer multiple classes. Successive courses were developed as new faculty resources were added. As the program was developed, the program used feedback from students, faculty, and practicing entrepreneurs to identify gaps, deficiencies, and difficulties in specific courses. The plethora of courses that are offered in universities in the U.S. and Europe suggest that a large variety of topics will elicit interest. It would appear that new venture creation and small business management are among the most popular courses with students, and perhaps small business counseling as well. It is probably premature to offer this course without considerable preparation by the faculty. While student-based counseling is very popular in the US, the U.S. also has a 26-year tradition in the Small Business Institute program as well as other outreach programs.

Why It Is Taught

The introductory course, MGT 312, Entrepreneurship is the fundamental course in the overall academic program. However, the College of Business has wisely been offering an

Introduction to Business and Entrepreneurship course that is required of all freshmen enrolled in business. This course attracts a number of non-business students as well as students that have not declared a major. Hence, the course serves as a natural vehicle to recruit more students to the entrepreneurship program.

How It Is Taught

Pedagogical issues are among the most debated in the entrepreneurship education literature. A variety of techniques are used in entrepreneurship and small business management courses. These techniques include, but are not limited to, case studies, lectures, experiential exercises, business plans, consulting projects, and guest speakers. Just as entrepreneurship itself is often associated with creativity and innovation (see, e.g., Kuratko and Hodgetts, 2001), teaching entrepreneurship has similar associations. The faculty should feel free to use any technique they believe will enhance the learning environment. As Schaper (1999) argues, numerous techniques are a wiser choice than only one or two regular techniques.

The program at this university uses a broad approach with state-of-the-art entrepreneurship education and pedagogies. Ranging from stage-wise development of ideas, feasibility studies, business plans, and business analyses to hands on applied business application, students are taught to be effective in the entrepreneurial world.

How Well It Works

The program can be evaluated using a variety of benchmarks. As noted, Vesper and Gartner's research (1997) indicate that highly ranked programs are evaluated based upon course offerings, faculty publications, community impact, alumni exploits, innovations, alumni start-ups, and outreach to scholars. These categories reflect a set of standards that are the cumulative result of over 20 years of teaching entrepreneurship. Applying these grandiose standards to a new program would not be valid. Thus, in our assessment, we have selected three or four standards which may or may not reflect the larger American experience.

These standards include course offerings and students enrolled in the Minor and Major including breadth and organization of course design, flexibility and utility of the minor and major. Qualifications of faculty, availability of a Center for Entrepreneurship, and financial resources available to the entrepreneurial program contribute to the standards. Successful involvement of students in both the Small Business Institute competitions and SIFE competitions address the issue of student engagement and contribute to standards of excellence. Finally, degree of administrative support, popularity among students, and university-wide impact should be considered in the standard.

LIMITATIONS

This study is limited by the nature of case studies (Yin, 1994). The findings of case studies cannot always be generalized to other situations. However, given the lack of a universal model for entrepreneurship education, it was both practically and theoretically appropriate to use a case study. While the results of this research may not specifically be extended to other American universities, the faculty and administration at other universities may certainly use the current study as the basis for their own efforts to start a comprehensive program in entrepreneurship.

IMPLICATIONS

As noted previously, we understand that the observations and detailed description of the steps that were followed at this public university may not be generalized to other situations. However, we believe that this study makes a contribution to the literature and to the practical efforts of individuals seeking to create a new entrepreneurship program or to expand their existing program.

Theory and Method

This case study generally affirms the findings of Solomon and his colleagues (2003). Nonetheless, the reader is able to obtain a more detailed view of the actions of one university. Such a perspective is simply not possible as a field of study moves from an stage of theory development to a stage of theory testing that entails traditional quantitative survey research.

This study demonstrates the value of the case method as a means of evaluating a phenomena in great detail. While survey designs, especially as a discipline grows and matures, give us insight into the aggregate efforts of a large group of individuals or organizations, a qualitative study offers a detailed perspective which may uncover issues that are lost in the process of aggregating the quantitative results of a study involving numerous participants.

This research proposes the use of a case-study method as a highly valuable qualitative research strategy. The choice of a case study method is theoretically driven. Recent studies of the activities of small firms (St. John and Heriot, 1991; Abdel-Latif and Nugent, 1996; and Rialp-Criado, Urbano and Vaillant, 2003) have demonstrated that case research has a high exploratory power and allows dynamic, decision-making processes to be more deeply investigated (Audet and d'Amoise, 1998). In particular, the case-based methodology is applicable to the discovery of the process of developing a foreign market. It overcomes some methodological limitations associated with previous research (Aldrich and Martinez, 2001).

This gap in the literature points out the need for further new theory development. In fact, in their study of the international efforts of small firms, Rialp-Criado, Urbano and Vaillant (2003) argue that the use of traditional quantitative survey methods may not be appropriate as it may yield

empirical difficulties. More recently, Lloyd-Reason, Sear and Mughan (2003) argue that a lack of process understanding, in part, stems from a paucity of multi-disciplinary studies and a tendency to use quantitative methods to provide insights into internationalisation in the SME. They echo the need for process insights made by Aldrich and Martinez (2001) who suggest that there is a need to explore the interaction between process and context and how this influences entrepreneurial behavior. Thus, the case methodology is very well suited to the current research.

Benchmarking

Perhaps the most important implication this study may have is to serve as a template or benchmark for individuals that would like to create a comprehensive program in entrepreneurship or to take their existing program beyond a simple academic emphasis. More importantly, given the lack of formally trained entrepreneurship educators, this study provides a detailed assessment of the foundation and creation of a program that has grown from literally nothing to a comprehensive academic program of study in five years. While the specific objectives and milestones of any academic program are unique to that institution, this study may be used as a benchmark for the efforts of others to create their own comprehensive entrepreneurship program for their university or college.

RECOMMENDATIONS

Upon reading the literature on entrepreneurship education and observing the current situation at the university, one of the few definitive conclusions one can reach is that the university has made an ambitious move to create a comprehensive program in entrepreneurship. The program includes a mixture of teaching, outreach, experiential learning, community service, and applied research. The biggest challenge to the program will be to manage the momentum. Rapid expansion leads to complex issues of resource allocation, choices regarding direction, and infrastructure challenges.

The university must be prepared to make adjustments to accommodate increasing numbers of non-business students in the Minor In Entrepreneurship. The key to doing so will be to internally recruit faculty who are prepared to teach elective courses and sections of entrepreneurship courses that include students without the traditional prerequisite courses associated with most upper level business classes. Unique and creative course designs in fields such as accounting will challenge the academic community to step out of their comfort zones. Traditional departmental “silos” that protect program SCH measures must give way to interdepartmental and cross-campus cooperation. But with these challenges, there is also tremendous opportunity for a new creative way to educate the entrepreneurs of tomorrow!

REFERENCES

Abdel-Latif, Abla M. & Jeffrey B. Nugent (1996). Transaction cost impairments to international trade: Lessons from Egypt. *Contemporary Economic Policy.* 14(2), 1 – 14.

Albert, Philippe & David Watkins, (1999). Entrepreneurship Education is Spreading Through Europe, But Far Too Slowly. *Efmd Forum*, 1, 30 -34.

Amit, R., L. Glosten & E. Mueller, (1993). Challenges to Theory Development in Entrepreneurial Research. *Journal of Management Studies*, 30(5), 815-834.

Audet, Jose & Gerald d'Amoise, (1998). The Relationship Between Strategic Scanning Activities of Small and Medium-Sized Enterprises and Their Performance: A Multi-Site Study Approach. *Proceedings of the United States Association of Small Business and Entrepreneurship*, 24 pages. Retrieved December 15, 2001. (http://www.sbaer.uca.edu/Research/ 1998/USASBE/98usa296.txt).

Babbie, Earl, (1992). *The Practice of Social Research* (6th ed), Belmont, CA: Wadsworth Publishing.

Brzosko, Anna, (1999). The Entrepreneurship Education on Graduate Level. *Proceedings of the 1999 International Council for Small Business World Conference*. Retrieved December 15, 2001 (http://www.sbaer.uca.edu/Research/1999/ICSB/99ics073.htm).

Busquin, Philippe. European Commission Joint Research Centre. Web site: www.jrc.org

Carton, Robert B., Charles W. Hofer & Michael D. Meeks, (1998). The Entrepreneur and Entrepreneurship: Operational Definitions of Their Role in Society. *Proceedings of the 1998 International Council for Small Business World Conference.* Retrieved December 15, 2001 (http://www.sbaer.uca.edu/Research/1998/ICSB/k004.htm).

Cooper, Arnold C; F. Javier Gimeno-Gascon & Carolyn Y. Woo, (1994). Initial human and financial capital as predictors of new venture performance, *Journal of Business Venturing*, 9(5).

Dana, Leo Paul, (1992). Entrepreneurial Education in Europe. *Journal of Education for Business.* 68(2), 74-78. Nov./Dec.

De Soto, Hernando, (1989). *The other path: The invisible revolution in the third world*. New York: Harper & Rowe.

Dun & Bradstreet, (1987). *The Business Failure Record*. New York: Dun & Bradstreet.

Esenhardt, Kathleen M. (1989). Building Theories from Case Research. *Academy of Management Review.* 14(4), 532 – 550.

Fiet, James O., (2001a). The Theoretical Side of Teaching Entrepreneurship. *Journal of Business Venturing*, 16, 1-24.

Fiet, James O., (2001b). The Pedagogical Side of Entrepreneurship Theory. *Journal of Business Venturing*, 16, 101-117.

Garcia, Marines Aponte, (1999). Entrepreneurship Education: An Institution for Development of Puerto Rico's Model. *Proceedings of the 1999 International Council for Small Business World Conference*. Retrieved December 15, 2001 (http://www.sbaer.uca.edu/Research/ 1999/ICSB/99ics253.htm).

Gorman, Gary & Dennis Hanlon, (1997). Some Research Perspectives on Entrepreneurship Education, Enterprise Education, and Education for Small Business Management: A Ten-Year Literature Review. *International Small Business Journal*, 15(3), 56-77.

Judd, Charles M., Eliot R. Smith & Louise H. Kidder, (1991). *Research Methods in Social Relations*, (6_{th} ed.) New York: Holt, Rinehart, and Winston, Inc.

Katz, J.A. (2003). The Chronology and Intellectual Trajectory of American Entrepreneurship Education. *Journal of Business Venturing* 18(2): 283-300.

Katz, J.A. (2006). *And Another Thing…* 2006 Coleman White Paper on Entrepreneurship Education. Presented at the Annual Meeting of the U.S. Association for Small Business and Entrepreneurship. Tucson, Arizona. January 13, 2006.

Kuratko, D. G. (2003). *Entrepreneurship Education in the 21st Century: From Legitimization to Leadership.* 2003 Coleman White Paper on Entrepreneurship Education. Presented at the Annual Meeting of the U.S. Association for Small Business and Entrepreneurship.

Kuratko, D. G. & R.M. Hodgetts, (2001). *Entrepreneurship: A Contemporary Approach*. Fort Worth: Harcourt Publishers, Inc.

McCarthy, Anne, Pamela J. Morris & Joan Winn, (1997). A New Look at Undergraduate Entrepreneurship Education. *Proceedings of the 1997 International Council for Small Business Annual Conference*. Retrieved December 15, 2001 (http://www.sbaer.uca.edu/Research/ 1997/ICSB/97ics053.htm).

Meyer, G. Dale (2001) Major Unresolved Issues and Opportunities in Entrepreneurship Education. *Proceedings of the United States Association for Small Business and Entrepreneurship and Small Business Institute Director's Association Joint Meeting.,* February 8, 2001 (Retrieved June 11, 2003) (http://www.sbaer.uca.edu/ Research/2001/ USABE-SBIDA/pdffiles/PAPERS/Volume1/001.pdf, 8 pages).

Mintzberg, H. (1990). Strategy formation: Schools of thought. In J. W. Fredrickson (Ed.), *Perspectives on Strategic Management.* New York: Harper and Row.

Plaschka, Gerhard R. & Harold P. Welsch, (1990). Emerging Structures in Entrepreneurship Education: Curricular Designs and Strategies. *Entrepreneurship: Theory & Practice*, Spring, 14(3), 55 - 70.

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

Rialp-Criado, Alex, David Urbano & Yancy Vaillant (2003). The Born-global Phenomenon: A Multiple Case Study Research In Spain. *Proceedings of the 2003 Annual Conference of the International Council for Small Business*.

Small Business Administration Website, 2001 (www.sba.gov).

Small Business Institute Director's Association Archival Database, (www.sbida.org).

Scarborough, Norman & Thomas W. Zimmerer, (2001). *Effective Small Business Management*, (6th edition). Upper Saddle River, NJ: Prentice-Hall Publishing, Inc.

Schaper, Michael. (2001). Delivering Entrepreneurship Education Across Borders, Across Cultures. *Proceedings of the 2001 International Council for Small Business World Conference*. Retrieved December 15, 2001. (http://www.sbaer.uca.edu/Research/2000/ICSB/pt1/038SCH.PDF).

Schindehutte, Minet, Michael H. Morris & Donald F. Kuratko, (2000). Classification as a Factor in the Scientific Evolution of Entrepreneurship. *Journal of Small Business Strategy,* 11(2).

Shepherd, Dean A. & Evan Douglas, (1997). Is Management Education Developing, or Killing, the Entrepreneurial Spirit? *Proceedings of the 1997 International Council for Small Business World Conference.* Retrieved December 15, 2001. (http://www.sbaer.uca.edu/ Research/1997/ICSB/97ics073.htm). 10 pages.

Solomon, George T., Erik K. Winslow & Ayman Tarabishy, (19980. Entrepreneurial Education in the United States: An Empirical Review of the Past Twenty Years. *Proceedings of the 1998 International Council for Small Business World Conference*. Retrieved December 15, 2001. (http://www.sbaer.uca.edu/ Research/1998/ICSB/i002.htm).

Solomon, G.T., Duffy, S., & Tarabishy, A. (2002). The State of Entrepreneurship Education in the United States: A Nationwide Survey and Analysis. *International Journal of Entrepreneurship Education*, 1(1): 65-86.

St. John, Caron H. & Kirk C. Heriot. (1991). Subcontracting: A Case Study. Research Grant for the United States Small Business Administration. September, 1990-1991.

Twaalfhoven, Bert W.M., (1999). Entrepreneurship Education and its Funding A Comparison between Europe and the United States. *Efmd Forum,* 3, 50 - 53.

U.S. Department of State Web Site, (2002). (www.state.gov).

Vesper, Karl. (1997). New Venture Scholarship Versus Practice: When Entrepreneurship Academics Try the Real Thing as Applied Research. *Technovation*. 17(7), 349 - 358.

Vesper, Karl & William B. Gartner, (1997). Measuring Progress in Entrepreneurship Education. *Journal of Business Venturing*. 12(5), 403-421.

Williams, & Andrew Turnbull, (19970. First Moves Into Entrepreneurship Teaching In Scottish Universities; A Consortium Approach. *Proceedings of the 1997 International Council for Small Business World Conference*. Retrieved December 15, 2001. (http://www.sbaer.uca.edu/ Research/1997/ICSB/97ics090.htm).

Yin, R. K. (1994). *Case Study Research: Design and Methods,* (2nd edition), Thousand Oaks, CA: Sage Publications.

THE DIVERSE AGENDAS OF FACULTY WITHIN AN INSTITUTIONALIZED MODEL OF ENTREPRENEURSHIP EDUCATION

Matthew M. Mars, University of Arizona

ABSTRACT

Entrepreneurship education has been broadened to include a wide variety of disciplines and areas of study beyond the management fields. However, little attention has been given to the diverse motives and practices of the faculty who participate in multidisciplinary models of entrepreneurship education. This research explores the factors driving a diverse group of faculty to participate in an institutionalized model of entrepreneurship education. The study reveals entrepreneurial agendas that are oriented toward educational, economic, and social outcomes, as well as provides examples of how diverse disciplines and academic fields of study stand to benefit from an entrepreneurial spirit and turn of mind.

INTRODUCTION

The field of entrepreneurship education is rapidly expanding across the United States (U.S.) higher education landscape (Charney & Libecap, 2003; Katz, 2003). This growth has not been limited to business education as demonstrated by an increase in the number of non-management faculty and students engaging in entrepreneurship education activities (Greene, Katz, & Johannisson, 2004; Solomon, Duffy, & Tarabishy, 2002). The multidisciplinary expansion of entrepreneurship education is evidenced in part by the Ewing Marion Kauffman Foundation awarding $25 million in funding to eight colleges and universities in 2003 and another $25.5 million to nine additional colleges and universities in 2006 for the purpose of institutionalizing the entrepreneurship as a field of study (Ewing Marion Kauffman Foundation, 2007). While the integration of entrepreneurialism into disciplines and areas of study outside of the management fields has encountered skepticism the trend continues (Carey, 2005),. Beyond the recognition that academic work is inherently entrepreneurial (Hildebrand, 2005), little is known about the factors motivating professors with a diverse set of disciplinary backgrounds to engage in entrepreneurship education. Therefore, research specific to the motives and practices of faculty beyond the management fields who are active in entrepreneurship education is both timely and warranted.

In this paper, a qualitative, single case study explores the underpinnings of faculty engaged in an institutionalized model of entrepreneurship education. The purpose of this research is not to develop broad generalizations applicable to all professors engaged in entrepreneurship education.

Rather, this research describes a case useful in deepening the understanding of the diversity in which certain faculty within a variety of disciplines and fields of study respond to and engage in entrepreneurship education. The case is centered on an institutionalized model of entrepreneurship education at a high research activity university located within the U.S. along the Mexican border. The pseudonyms *Entrepreneurial University (EU)* and *Entrepreneurial City (EC)* have been used to identify the university and the city housing the institution to protect the confidentiality of participants.

The case includes a diverse sample of mostly tenured professors who engaged in entrepreneurship education in large part to enhance existing personal and professional entrepreneurial agendas, which were attempting to solve a range of educational, economic, an/or social problems. This group of faculty was recruited by the director of EU's entrepreneurship center in large part based on a demonstrated interest in the integration of entrepreneurial principles into their work. Of importance is that the professors did not engage in entrepreneurship education only in pursuit of resources or purely in response to institutional pressure to become more entrepreneurial. In other words, the institutionalization entrepreneurship education at EU was not the initiating force behind the entrepreneurial interests of the participating faculty members.

Meyer (2001) forecasts business college administrators and faculty will increasingly embrace entrepreneurship education as the field continues to migrate across disciplinary boundaries and becomes positioned closer to the core of institutional agendas. Katz (2003) indicates entrepreneurship education is integrating across disciplinary boundaries regardless of the degree of involvement and support of the business schools that traditionally house centers of entrepreneurship education, which threatens to dilute entrepreneurship. Therefore, this study's focus on a highly collaborative, cross-disciplinary entrepreneurship education model is timely for leaders of existing entrepreneurship centers seeking to expand the disciplinary scope of the field of study while maintaining its position within schools of business. Similarly, the case provides to academic professionals outside of entrepreneurship education examples of how entrepreneurial principles and practices stand to advance diverse scholarly, institutional, economic, and social goals and agendas.

LITERATURE AND CONCEPTUAL FRAMEWORK

Scholarship addressing the movement of higher education toward the marketplace often focuses on how academic practices are increasingly modeling the principles of the private economy. Accordingly, there exists a robust body of literature addressing the implications of private market influences on colleges and universities. Mars (2006) places the multidisciplinary expansion of entrepreneurship education within the context of the commercialization of higher education. According to Slaughter and Leslie (1997) and Slaughter and Rhoades (2004), faculty members most often engage in market behaviors out of necessity due to the scarcity of resources, in the pursuit of economic and financial rewards, or both. David L. Kirp (2003) presents a more sharply contrasted

view when presenting a dichotomy consisting of professors who either embrace or oppose the inclusion of market ideologies and behaviors into academic practices. Geiger (2004) discusses the challenges facing faculty members who are increasingly expected to integrate technology transfer activities, which are emblematic of private market ideologies, into already over-extended professional and scholarly agendas. The aforementioned works document and analyze the structural and sociological shifts that are occurring within higher education as a result of the growing presence of market forces within postsecondary institutions. However, this literature does not fully capture the diversity of how entrepreneurial professors leverage market-oriented initiatives in pursuit of outcomes beyond the generation of revenues and resources.

The term *entrepreneurship* is often used by scholars in misguided ways and therefore requires defining. Drucker (1993) calls upon Schumpeter's seminal work to define entrepreneurship as innovative processes intended on disrupting existing economic and social structures. The disruption is purposeful with the desired outcomes being the more efficient and equitable distribution of resources and ultimately the accumulation of wealth. In regards to the entrepreneur, Thomas and Mueller (2000) identify entrepreneurial qualities as "foresight and energy, passion and perseverance, initiative and drive" (p. 290). Lounsbury and Gynn (2001) contend entrepreneurs operate from a cultural perspective that encourages the development of legitimizing stories designed to secure the resources needed to innovate and create wealth. Further, entrepreneurial principles are often applied to the efforts to solve social problems (Dees, 1998). *Social entrepreneurship* refers to maximizing limited, finite resources in order to produce innovative and sustainable social change (Bornstein, 2004). One primary example of social entrepreneurship is the 2006 Nobel Peace Prize winning Grameen Bank, which provides collateral-free credit to poor populations within the country of Bangladesh. Ultimately, entrepreneurship is a disruptive and creative process that involves calculated risk taking for the purpose of redistributing and maximizing resources and developing more efficient economic and/or social infrastructures.

Throughout this study, the preceding conceptualization of entrepreneurship guides what approaches and activities are considered entrepreneurial. In the context of higher education, neither the professor seeking grant funding nor the student selling class notes are entrepreneurs. These behaviors are not inherently innovative nor do they imply a redistribution of resources under the auspices of efficiency and wealth accumulation. However, the professor who alters established curriculum in an effort to promote the emergence of student-driven spin-off ventures is an example of an academic entrepreneur. Further, the hypothetical social scientist that creates strategic partnerships with venture capitalists in order to encourage disenfranchised student populations to use entrepreneurship as means of procuring resources for their communities is an example of a social entrepreneur. In short, entrepreneurship in the true sense of the meaning compliments rather than opposes many of the norms and values of higher education.

Entrepreneurship as a field of study within higher education is a relatively recent phenomenon (Kuratko, 2006). Accordingly, the body of scholarship specific to entrepreneurship

education is burgeoning. The primary distinction of the present research is the focus on the sociological implications of institutionalized entrepreneurship education on those academics who are involved in the field's cross-disciplinary expansion. Finkle and Deeds (2001) indicate there is a significant degree of resistance within the academy to the expansion of entrepreneurship education even though the field continues to grow in popularity. Kuratko (2005) states assistant professors seeking tenure face serious risks when engaging in entrepreneurship education. These risks are heightened for those academics outside of the management fields that become active in the expansion of entrepreneurship education. Therefore, understanding the motives and agendas driving faculty to engage in entrepreneurship education in spite of the potential detriments to their careers is important to overcoming the likely pitfalls to the enhancement and expansion of the field based on academic structures and the rigors of tenure acquisition. In the most ideal of situations, the merits of entrepreneurship as a field of study will be demonstrated to such a degree that associated efforts will enhance rather diminish tenure portfolios regardless of disciplinary affiliation. The inclusion of entrepreneurial minded academics located across a wide range of disciplinary fields in the expansion of entrepreneurship education represents an important strategy in responding to Meyer's (2001) "challenge to work for institutionalization of the entrepreneurship vision and educational mission" (p. 3)

James O. Fiet (2001a, 2001b) argues that the legitimacy and further development of entrepreneurship as a field of study hinges on the establishment of a broadly accepted theory of entrepreneurship and a corresponding pedagogical approach to entrepreneurship education that infuses the aforesaid theory. Entrepreneurial theory is critical to the ability of students to appropriately consider conditions that are not readily available through observation (Fiet, 2001a). In other words, entrepreneurship education should provide students with a theoretical compass useful in navigating the future economic and/or social conditions that will in a large part determine the outcomes of new ventures. The principles, methods, and philosophies embedded in entrepreneurial theory and subsequently entrepreneurship education are applicable to a wide range of applications and environments. Kuratko (2005) states an entrepreneurial perspective "can be exhibited inside or outside an organization, in profit and not-for-profit enterprises, and in business or nonbusiness activities for the purpose of bringing forth creative ideas" (p. 578). In short, the diverse range and applicability of the knowledge and skill sets that constitute entrepreneurship as a field of study are not limited by disciplinary boundaries.

Organizational structures such as institutionalized entrepreneurship education centers are complex, fluid, and often abstract in nature. Therefore, exploring such structures is difficult. This study relies on Shein's (2004) tri-level model of organizational culture as an analytical framework useful in organizing and making meaning of the collected data. Shein's model deconstructs organizational structures according to three distinct levels within the context of group members. The three levels include artifacts, espoused beliefs and values, and underlying basic assumptions. *Artifacts* are the observable traits of group members and from which meaning is difficult to extract.

Espoused beliefs and values represent the strategic and philosophical underpinnings of a group and are more abstract than artifacts. The third level of Shein's model is termed *basic underlying assumptions*. This level is least observable, but most powerful. The assumptions are deeply ingrained in the belief systems of group members and thus are highly sustainable and not easily displaced or replaced. The researcher has the responsibility of interpreting the significance of the basic assumptions of organizational members. Lee, Oseguera, Kim, Fann, Davis, and Rhoads (2004) provide precedence in the merits of Shein's model as a framework useful in exploring academic cultures. The tri-level model assisted this researcher in organizing and coding the data specific to the faculty who participated in EU's institutionalized model of entrepreneurship education.

The aforementioned literature is the conceptual starting point for this study's exploration of one case of institutionalized entrepreneurship education and the entrepreneurial traits, motives, and practices of the diverse set of faculty members engaged in this initiative. Close attention is paid to the ways professors leverage their involvement in entrepreneurship education to advance agendas that are developed around pedagogical, professional, economic, and/ or social goals and objectives. The insights offered through this case study will shed light on how entrepreneurship education can advance economic agendas, but also efforts to create social change. Accordingly, the paper highlights the applicability of entrepreneurial principles and practices to the efforts of faculty regardless of discipline and academic field of study. In short, this study is guided by two primary questions:

1) What are the traits, motives, and practices of the faculty members who participate in institutionalized models of entrepreneurship education?

2) How does entrepreneurship education intersect the agendas and practices of faculty located outside of the management fields?

METHODS

This study has been developed using data included in a larger study of the expansion of entrepreneurship education (Mars, 2006). During the fall 2005, Mars analyzed two expanding entrepreneurship education models with one being located in a Carnegie classified research institution with high research activity in the Southwest and the other in a very high research activity institution in the Midwest. The selection of the sites was the result of a purposeful environmental scan of 112 U.S. colleges and universities offering entrepreneurship as a formal field of study. The selection criteria included: (a) the presence of a formalized, institutionally recognized entrepreneurship education center; (b) the goal of institutionalizing entrepreneurship education; and (c) the existence of or intended goal of establishing an entrepreneurial incubator accessible to students and faculty within the entrepreneurship education center. In this paper, focus is placed

exclusively on the Southwest institution, which has been given the pseudonym *Entrepreneurial University (EU)*, due the depth and richness of the data specific to this site. The entrepreneurship education center at EU is an established organization that has received significant external funding for the purposes of expanding entrepreneurial training and activities across a diverse set of academic disciplines and fields of study. Accordingly, a formal, multidisciplinary group of faculty participants has been created and maintained for education, research, entrepreneurial, and advisory purposes. This faculty body provided a dependable and trustworthy sample appropriate to the objectives of this study.

A qualitative, single case study approach was used to capture and better understand the impetus driving the participation of faculty in EU's institutionalized entrepreneurship education initiative. The case study method allows for the examination of a single site and requires data that are thorough and from numerous informational sources (Creswell, 1998; 2005; Stake, 1995). The primary method of data collection was face-to-face interviews with a sample of the EU faculty who were actively engaged in entrepreneurship education. The interview protocol was semi-structured and allowed for in-depth exploration of the research topic (Marshall & Rossman, 1995). The interview summaries were member checked to verify accuracy and to enhance trustworthiness.

Initially, all faculty sitting on entrepreneurship education center institutional advisory board (n = 20) were contacted and invited to participate in this study as an interviewee. As will be described later in this paper, a majority of the faculty members sitting on the center's advisory board were engaged in entrepreneurial activities prior to the formalized effort to institutional entrepreneurship education across the EU campus. Therefore, the institutionalization of entrepreneurship education represented to most of the participating faculty members an opportunity to enhance existing entrepreneurial agendas rather than a reason to create entrepreneurial agendas as a method of seeking out scarce resources. Ultimately, 12 interviews were conducted, each of which lasted between 45 minutes to two hours. In other words, 60% of the professors formally associated with EU's entrepreneurship education center participated in this study, which constitutes a sufficient representation of the entire advisory board. This sample is robust, as Creswell (2002) recommends three to five participants for a case study. The sample is best described as multidisciplinary and tenured. Table 1 provides a demographic overview of the faculty sample according to academic rank, level of education, and discipline/field of study. Pseudonyms are used for the name of participants whose works are cited in this study in order to ensure confidentiality.

Data extracted from interviews and analyzed documents were coded using a structured scheme organized by discipline/field of study, market orientation, and personal and social agendas. *Market orientation* refers to the location of each faculty member's discipline/field of study in relation to the private economy. The large amounts of gathered data were organized and analytically managed using Shein's (2004) tri-level model of organizational culture. *Artifacts* included the collected and analyzed documents, while the *espoused norms and values* were extracted from

interview data. The *basic underlying assumptions* were interpreted in accordance with the themes that emerged from the analyzed documents and interview data.

Table 1: Faculty Demographics

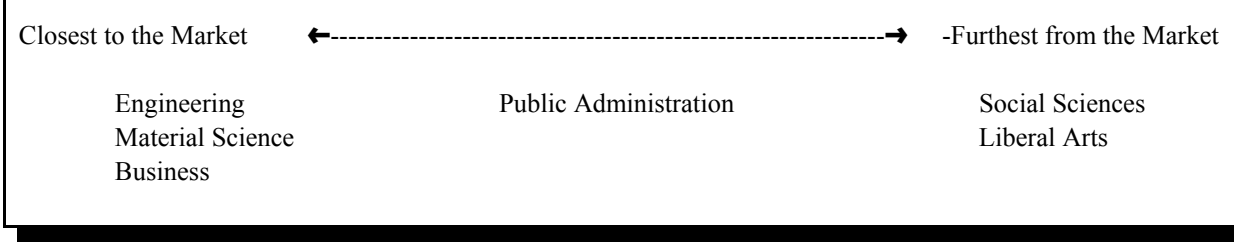
Faculty Participants	Rank	Degree	Discipline
1	Full	PhD	Political Science
2	Full	PhD	Chicano Studies
3	Full	PhD	Management
4	Full	PhD	Management
5	Full	PhD	Electrical/Computer Engineering
6	Full	PhD	Civil Engineering
7	Full	PhD	Chemistry/Material Sciences
8	Associate	PhD	African American Studies
9	Associate	PhD	Economics/Finance
10	Associate	PhD	Public Administration
11	Associate	PhD	English Literature
12	Associate	PhD	Sociology

The analyzed documents included course syllabi, web pages, brochures, and formal policy statements associated with entrepreneurship education. Further, the collection of faculty artifacts included current and past research agendas, instructional histories, records of entrepreneurial activities, and community service projects. The institutional artifacts selected for analysis provided details of programmatic structure, historical data on the evolution of entrepreneurship education at the university, policy statements regarding the institutionalization of entrepreneurship education, and information outlining the entrepreneurial activities of university faculty members. This analytical approach resulted in the development of an entrepreneurial continuum anchored on one end by those academics in disciplinary fields closest to the market and on the other end by those in disciplinary fields furthest from the market (sees Figure 1).

Interviews were coded using a structural scheme identical to what was used in coding the data extracted from the analyzed documents. The interview data revealed the espoused norms and values of the faculty participants, which in turn were positioned along the entrepreneurial continuum. In other words, the comments, statements, and entrepreneurial agenda of each interviewed faculty member were placed within the context of market location. Lastly, the proffered method of conceptualization allowed for a sophisticated exploration and interpretation of the basic

underlying assumptions of the faculty comprising the sample and the identification of emergent sociological themes related to EU's developing entrepreneurship education model.

Figure 1: **Entrepreneurial Continuum**



FINDINGS

According to the most recent Carnegie Classification, EU is a university with high research activity. The geographical location of the university adds to the richness of this study. More specifically, EU is located within a large international metroplex that is divided by the U.S./Mexico border and is characterized as being an economically stagnant region. The efforts to revive the borderland region's economy had been centered on high technology initiatives, manufacturing, and global trade activities. EU had positioned these economic development efforts at the core of its institutional mission. Likewise, the entrepreneurship education center had been strategically aligned with the institution's economic development agenda.

The center was well funded with $2 million in backing from a prominent national intermediary with a commitment to creating and enhancing entrepreneurial bridges between institutions of higher education and private markets. The funding directly supported the institutionalization of entrepreneurship education across a wide variety of academic disciplines and fields of study. The tangible benefits made available to faculty participants as a result of these external dollars included monies for professional development specific to entrepreneurship education (i.e., national conferences and trainings); student enrollments linked to courses cross listed with entrepreneurship; and entrepreneurial support of personal market ventures and community-projects. The more abstract benefits included the generation of social capital through the participation in an initiative directly aligned with institutional efforts to promote economic development in the region surrounding EU; avenues to research support for innovative scholarship; promotion of home departments to students; and the opportunity to provide students with unique sets of entrepreneurial skills and knowledge.

As previously mentioned, the faculty body active in the institutionalization of entrepreneurship education at EU was best described as tenured and multidisciplinary. According to the entrepreneurship education director:

> The Center seeks out and identifies those faculty "outliers" who have a pre-existing interest in entrepreneurship. By identifying faculty across disciplines with common interests, we [entrepreneurship education center leadership] bring them together within one common organizational structure – the entrepreneurship education center. Also, we do not recruit faculty without tenure, as their participation in the center's activities are not helpful in gaining promotion and tenure. (interview P1 EU, September 29, 2005)

Specifically, the professors participating in the expansion of entrepreneurship education included 12 full professors, 7 associate professors, and 1 assistant professor and represented disciplines and academic fields of study ranging from African American studies to civil engineering.

The demographics of the faculty body recruited to both support and help direct the institutionalization of entrepreneurship education at EU is important. First, the preexisting entrepreneurial interests and agendas of the majority of the participating professors demonstrate the collaborative nature of the institutionalization effort. More specifically, the pursuit of scarce resources through the affiliation with a university-supported entrepreneurial endeavor was *not* found to be the primary underlying motivation behind the faculty's involvement with the cross-disciplinary expansion of the entrepreneurship education at EU. While the faculty participants undoubtedly sought resources to support existing agendas, none were found to have created an entrepreneurial agenda as a means of accessing a portion of the $2,000,000 of funding tied to the entrepreneurship education center. Second, the tenured status of most of the faculty reduced the professional risks associated with engaging in scholarship and service activities outside of discipline-specific boundaries. The rationale for recruiting tenured and therefore professionally secure faculty is consistent with Finkle's and Deeds's (2001) and Kuratko's (2005) description of entrepreneurship as a marginalized academic field of study.

Closest To The Market

The EU engineering and materials science faculty members participating in entrepreneurship education showed a history of entrepreneurial activities. A materials science full professor spent the first half of his career working as a researcher in a private laboratory and was the co-founder of EU's first start-up company. A civil engineering professor was the co-founder and co-owner of an international consulting firm that managed the construction of large domed buildings and sporting arenas. Also, an electrical and computer engineering full professor reported a long history of entrepreneurial ventures that included founding a company in the 1980s that pioneered the construction of an information highway connecting organizations located throughout the Pacific

Northwest. The aforesaid examples indicate the engineers and materials scientist had been engaged in entrepreneurial activities prior to becoming involved in EU's efforts to institutionalize entrepreneurship education.

The engineers and materials scientist embraced the integration of entrepreneurial principles into their professional and scholarly practices. First, an electrical and computer engineering professor expressed numerous perceived benefits of entrepreneurship education on all fields of study. The professor stated:

> In theory, entrepreneurship education is a good thing. It turns scholarly activities into profit making ventures. Also, it creates an awareness of the value in transferring knowledge to the market. Entrepreneurs should come out of programs that are producing scholarship and intellectual property – such as engineering. (interview P2 EU, September 30, 2005)

The professor believed that entrepreneurial activities within engineering programs were not only acceptable, but beneficial to the field. The premise of this belief was that the university should operate as an economic engine with structures useful in transferring knowledge from laboratories to private markets. To the professor, entrepreneurship education represented a structure useful in promoting the movement of university-born innovations into the economy.

This electrical and computer engineering professor was not without concerns regarding entrepreneurial activities within colleges and universities. He stated:

> Incubators are dangerous. There are legal implications related to conflicts of interest between the public, state-sponsored university and private competitors. Issues of unfair competition seem inherent. (interview P2 EU, September 30, 2005)

These comments did not indicate opposition to entrepreneurial incubators, which are commonly found within entrepreneurship education centers, nor were the concerns related to how entrepreneurship may influence engineering as an academic field of study. Rather, concern was rooted in the potential legal implications of universities as publicly supported organizations engaging in private market activities.

The same professor held no reservations regarding the implications of entrepreneurship education and related market activities on the socialization of engineering students. Specifically, he stated:

> Incubators are good learning experiences for engineering students who will eventually become entrepreneurs in their fields. I have no concerns that students would drop out of school to pursue an entrepreneurial venture. If they do and are successful, that is all that matters. Degrees are not prerequisites to success. (interview P2 EU, September 30, 2005)

Thus, the professor was not opposed to a student choosing an entrepreneurial venture over a college education. However, the professor did not account for the implications of market failure on those students opting out of college in favor of pursuing an entrepreneurial opportunity.

The materials science professor expressed similar views on the potential implications of entrepreneurship education on his discipline and students. In describing his views on infusing entrepreneurial principles into the materials science curriculum, he stated:

> Entrepreneurship and interdisciplinary learning is the wave of the future. Some faculty see interdisciplinary models as threatening to their academic turf. I think the interdisciplinary idea threatens people. Entrepreneurship education creates opportunity structures for students and we [the university] need to serve the students. Students want and need entrepreneurial skill sets, especially those involving intellectual property rights and business plan development. (interview P3, EU September 28, 2005)

The professor accepted entrepreneurship education as an innovative trend and a near obligation of the university to its students. The professor's entrepreneurial record reflected his commitment to student entrepreneurship in that the founding partner of his spin-off company was a former graduate student trained under his supervision.

The views of the relationship between entrepreneurship, entrepreneurship education, and engineering expressed by the professor of civil engineering paralleled those held by the professors of electrical and computer engineering and of materials science. The professor purported:

> Students need entrepreneurial skills. To do engineering you need to be good at sales. Engineering students most often have no business skills or training in sales. They are disadvantaged when they reach the job market. (interview P4 EU, September 28, 2005)

The comments denoted the professor's support of entrepreneurship education and the integration of entrepreneurial principles into the existing engineering curriculum. The professor went on to state:

> The dean of the College of Engineering included in the college's strategic plan points encouraging the embedding of entrepreneurship in the engineering curriculum. The dean believes entrepreneurship education is a way to help the college meet its obligation to the university's efforts to enhance the economic development of Entrepreneurial City. (interview P4, EU September 28, 2005)

Thus, the institutional norm of embracing entrepreneurship and the market was further evident at the administrative level of the EU College of Engineering.

Furthest From The Market

The faculty in the social sciences and liberal arts participating in entrepreneurship education at EU engaged in entrepreneurial activities and interests that were different than those of the engineers and materials scientist. The activities of the social scientists were not closely aligned with the private market, but rather with scholarly interests and community service initiatives. In other words, the entrepreneurial activities of the social science and liberal arts faculty were linked to their disciplinary interests and mostly representative of social entrepreneurship.

The associate professor of African American studies, who was also a member of the history faculty, had a longstanding research agenda centered on the implications of business and entrepreneurship on the social and economic advent of the American Black community. This faculty member's dissertation examined the entrepreneurial philosophies of Emmett Jay Scott, a historic leader within the Black community. Scott, a follower of Booker T. Washington, argued in 1915 that one primary way for the Black community to advance its social position was through entrepreneurship and independence from the dominant White economy (Jones, 1983) (Jones has been used in order to protect the participant's anonymity.) Also, the associate professor published in a 2003 edition of the *Harvard Business Review* an essay articulating the efficacy of entrepreneurship as a vehicle for the societal advancement of African American communities. Finally, the same faculty member conducted workshops on entrepreneurial practices within local Black communities. The preceding activities of the associate professor of African American studies reveal his belief in entrepreneurship as a catalyst for sustainable social and economic gains in African American communities.

The associate professor of women's studies, who was also a member of the sociology faculty, had an interest in the implications of business education on female college students. For example, this faculty member conducted research on the gendered perceptions of the benefits and barriers associated with pursuing a business degree at the university, as well as the viability of women successfully pursuing business careers within the communities surrounding EU. This research was grounded in the notion of business education serving as a vehicle for advancing the social and economic positions of women residing in the economically stagnant region encompassing EU. Also, the same interviewee developed a course in partnership with the director of the entrepreneurship education center, which was titled "Women in Business." The course encouraged incoming female undergraduates to consider careers in entrepreneurship and business as a means of achieving financial security and independence.

The Chicano studies full professor did not have an active history of scholarship in areas related to business or entrepreneurship. His research agenda centered on the intersections of public and economic policy and Mexican American populations. For example, the professor had examined the implications of higher education financing on Hispanic students in the states of Texas and California. The professor's support and growing interest in entrepreneurship were evidenced by the

hybrid``` courses he was developing. The courses, titled "Entrepreneurs in Entrepreneurial City" and "Entrepreneurs in the Transnational Context," were being designed to attract students to the Chicano studies minor, which would eventually include a track specific to entrepreneurship in the Hispanic context. Also, these courses were intended on supporting the Chicano studies department goal of training students as agents of social and economic change within the borderland region housing EU.

Interview data revealed a normative structure grounded in social advancement, justice, and equality common to the social scientists and liberal arts faculty participating in EU's expanding entrepreneurship education model. Broadly, this group of faculty identified entrepreneurship as a potentially powerful mechanism for social change within the economically stagnant region surrounding EU. However, and unlike the engineers and materials scientist, the social scientists and liberal arts faculty voiced concerns regarding the potential implications of entrepreneurship on their curricula and students. The concerns center on the migration of students from the societal and humanitarian roots of their primary fields of study towards more capitalist ideologies. Additionally, concerns related to the potential student attrition and conflicts of interests linked to an increase in market initiatives sponsored by the university were voiced by this group of faculty.

The associate professor of African American studies indicated longstanding personal and scholarly interests in how entrepreneurship has and continues to benefit the social and economic positions of Blacks in the United States. He stated:

> Historically, Blacks in America have under-utilized their community resources. By integrating entrepreneurship into the African American studies curriculum, students will be better equipped to capitalize on existing and future community and economic resources. One goal is to challenge preconceived notions of Blacks being unable to succeed in business by producing entrepreneurial role models. I believe social transformation is possible with the help of entrepreneurship education. (interview P7 EU, September 28, 2005)

The associate professor viewed entrepreneurship as a tool useful in promoting social growth and economic prosperity within African American communities. Specifically, the inclusion of entrepreneurial principles in the African American studies curriculum was intended on equipping Blacks with the capacities to independently create social and economic change within their communities.

The African American studies associate professor was also in favor of the emergence of university sponsored student entrepreneurs as evidenced by the following statement:

> I have no reservations regarding students using university resources to promote their own businesses. Students should be awarded for their work. It is a matter of equity, fairness, and recognition. Also, entrepreneurial projects can serve as a collective learning process, which requires students to think critically and more abstractly. (interview P7 EU, September 28, 2005)

The associate professor's personal and academic philosophies included the belief in Blacks maximizing all available resources to promote social and economic prosperity within their communities. Such efficiency and independence would require the redistribution of economic and social resources, which is an endeavor best served by an entrepreneurial turn of mind. Therefore, the faculty member's acceptance of and participation in entrepreneurship education was reflective of his own socially-oriented entrepreneurial agenda.

The associate professor of women's studies saw entrepreneurship education as a viable means of advancing the social and economic status of women in the communities surrounding EU. She stated "Entrepreneurship may equip students with the background and confidence needed to both pursue a business education and a career in Entrepreneurial City" (interview P8 EU, September 29, 2005). The remarks underscore her aspirations of breaking down the barriers that discouraged women from gaining independence and occupational success in the borderland region. Like the African American studies faculty member, the associate professor of women's studies participation was an extension of her own socially-oriented entrepreneurial agenda.

Like entrepreneurship education, women's studies was an expanding academic field on the EU campus. The associate professor of women's studies outlined a reciprocal, but potentially conflicting relationship between her academic unit and the entrepreneurship education center. She stated:

> One primary objective is to institutionalize women's studies, which involves extending the field beyond the liberal arts. Traditionally, the exclusive location of women's studies within the liberal arts was protected. I am a proponent of partnering with the entrepreneurship center as long as the collaboration is multidisciplinary and not interdisciplinary, which involves picking and borrowing. I do not want women's studies to move toward policy issues and away from sociological issues. (interview P8 EU, September 29, 2005)

These comments reveal a conflict between the faculty member's disciplinary norms, which were grounded in sociology, and her desire to promote the position and legitimacy of women's studies across the university.

The associate professor of women's studies also held views on the emergence of university sponsored student entrepreneur. Interestingly, she was supportive of student entrepreneurialism, but adamantly believed the university should stand to profit from any resulting market successes. She stated:

> I am not opposed to students engaging in capitalist activities while enrolled at EU. However, these students should have the obligation of giving back to the university once they are successful. Higher education is way under funded. Student entrepreneurs are similar to student athletes. Those who go professional and the teams who draft them should compensate universities for the training provided. (interview P8 EU, September 29, 2005)

The associate professor's position on student entrepreneurialism was not one of opposition, but rather one based on principles of mutual compensation. In other words, the university should realize a return on its investments in the entrepreneurial efforts of students. It is not evident that student entrepreneurialism contradicted the interviewee's personal and professional normative structures and value systems. However, the faculty member's support of the university sponsored student entrepreneur was based on equity rather than the accumulation of institutional wealth. The focus on equity differs from the engineering and materials science faculty interviewees who placed primary emphasis on traditional capitalist values.

The Chicano studies professor was also engaged in entrepreneurship education as an extension of an existing social agenda. For example, he stated:

> The bulk of [Chicano studies] students are working in the social service sector, which includes serving the portion of the population falling below the poverty level. One objective of including entrepreneurship in the Chicano Studies curriculum is to promote students developing into effective agents of social change within not just Hispanic communities, but the entire Entrepreneurial City community. The goal of the Chicano program is to provide students with saleable skills and to produce experts in the Mexican culture. (interview P9 EU, September 28, 2005)

Despite the benefits of entrepreneurship education to Chicano studies students and the constituents they would eventually serve, the professor was concerned that the "glamour" of entrepreneurship would encourage students to leave college in pursuit of perceived market opportunities. Thus, while recognizing the potential value of entrepreneurship to his academic field, students, and the Hispanic community, the professor was hesitant to completely embrace the collaboration.

The social scientists and liberal arts faculty at EU outlined the context of entrepreneurship as a set of behaviors and a field of study within the context of socially-oriented agendas. The inclusion of entrepreneurship in their scholarly, professional, and civic practices was embedded in principles of social entrepreneurship. Even more specific, the social scientists and liberal arts faculty hoped the integration of entrepreneurial principles into their established normative structures and value systems would promote social change and advancements across disenfranchised populations.

Like all entrepreneurial ventures, the participation of the social scientists and liberal arts faculty in EU's entrepreneurship education initiative did not come without risks. Specifically, the faculty members purported concerns that the permeation of entrepreneurship into their academic fields may threaten the fundamentals of their disciplines and professional practices, as well as the scholarly commitments of their students. Interestingly, the concerns of the faculty members were linked to their academic fields and students rather than to the stability of their own careers.

DISCUSSION

At EU, a diverse spectrum of motives and practices framed faculty participation in the university's institutionalized model of entrepreneurship education. Professors from a wide range of disciplines and fields of study engaged in entrepreneurship education out of personal interest, in response to the university's evolving economic priorities, in efforts to enhance student competitiveness in the labors market, and to leverage economic and social agendas. The variations in the forces driving faculty to be active in entrepreneurship education and the related outcomes have been conceptualized in the preceding findings section in relation to relative proximity to the private market.

The underpinnings of the involvement of the engineers and materials scientist in entrepreneurship education at EU are described as being typical entrepreneurialism. That is, the scholarship, innovations, and commercial histories of these academics mirror the high-tech, knowledge-based nature of the current economy. This contemporary or "new" economy is the primary impetus behind the ongoing permeation of the market into US colleges and universities (Slaughter & Rhoades, 2004). The close proximity of the engineers and the materials scientist to the new economy is easily recognized through the technology-based market ventures of these academics. Also, these commercial activities parallel the economic development initiatives and goals of the borderland region housing EU.

The engineers and materials scientist held similar positions related to the intersections of entrepreneurship education and each of their fields of study and professional practices. These professors consistently described common benefits to their participation in entrepreneurship education, which included gains realized by the students within each department. First, students were thought to be primarily destined to careers in the private market regardless of each department's participation in entrepreneurship education. The integration of entrepreneurship education into the engineering and materials sciences curricula was seen as a means of bolstering the entrepreneurial skills sets and labor market competitiveness of students. However, the faculty members held a common concern regarding the legal implications of student involvement in university-spawned market ventures. Accordingly, the engineers and materials scientist identified entrepreneurship education as an effective avenue for educating students on intellectual property rights, patenting, and copyrighting.

The engineers and materials scientist were acutely aware of EU's institutional priority to serve as a primary catalyst to economic development within the surrounding borderland region. These professors referenced this priority when discussing the advantages of participating in the university's efforts to institutionalize entrepreneurship education. Specifically, entrepreneurship education was identified as an opportunity structure for each professor to further align themselves and their department with the university's economic development agenda and to fulfill social obligations to external communities. In this regard, entrepreneurial engagement was partially a strategy used by the professors to increase the flow of institutional and departmental resources and

to enhance social standing within and beyond the university. However, the pursuit of resources was not found to be the fundamental factor for their participation in the efforts to expand entrepreneurship education across the EU campus.

In part, the entrepreneurship education center created sources of investment capital essential to start-up initiatives located within the university through the creation and management of networks with private sector investors and venture capitalists. The push to expand technology transfer activities and the number of spin-off companies launched from the university was a highly visible institutional priority. For example, the materials scientist leveraged this entrepreneurial climate for personal gain as evidenced by his leadership in the creation of EU's inaugural spin-off company. This high-tech start-up manufactured environmentally conscious and highly durable paint pigment using an innovative process developed within EU's materials science department. The faculty entrepreneur secured approximately $1 million in venture capital through the entrepreneurship education center's private market network. In other words, the professor realized personal gains through his awareness of and connection to EU's entrepreneurship education center. In return, the expected market sustainability of the enterprise would in theory contribute to regional efforts to establish a vibrant high-tech, knowledge-based industrial sector. In short, the entrepreneurship education center symbolized a source of scarce capital to certain professors with existing entrepreneurial agendas.

The social science and liberal arts professors identified entrepreneurship education as a vehicle for growing departmental enrollments, diversifying existing curricula, and aligning their units with institutional priorities. However, the entrepreneurial efforts of these professors were also motivated by the drive to induce social change. The efforts of the social scientists and liberal arts faculty to utilize alliances with the entrepreneurship education center in support of pre-existing social agendas were creative, innovative, and thus entrepreneurial. These professors assumed the integration of entrepreneurial principles into their professional practices and social pursuits was worth any potential risks. One such risk was the inclusion of entrepreneurship in the social sciences and liberal arts curricula would erode disciplinary focus. For example, the women's studies associate professor was concerned that linking her department with the entrepreneurship education center could detract from the sociological and humanitarian ideologies of her field. Others voiced concerns that the integration of entrepreneurial principles into established curricula would result in a migration of students from the arts and social sciences to more market-oriented fields of study or worse, encourage students to leave the university all together in pursuit of an entrepreneurial venture.

The social scientists and liberal arts faculty consistently expressed an awareness of and commitment to the university's efforts to promote economic development in the borderland region. These professors engaged in entrepreneurship education as an innovative avenue toward social and community advancements rather than in efforts to generate and accumulate financial wealth. In other words, the potential social outcomes of economic development enticed these professors to become involved in entrepreneurship education.

One trait of an entrepreneur is the willingness to take calculated risks (Drucker, 1993). The professors included in this study were assuming some risk by participating in entrepreneurship education at EU. The involvement required allocating scarce time, making curricular concessions, and encouraging students to explore market opportunities outside of disciplinary boundaries. These risks were minimized by the tenure status of the participants. Also, the entrepreneurial climate of EU made entrepreneurship education a vehicle for faculty seeking to position themselves and their work closer to the institutional core. This institutional alignment was especially important to the social scientists and liberal arts faculty whose participation in entrepreneurship education countered distinct, non-market-oriented disciplinary norms and values. Lastly, students who choose entrepreneurial ventures over educational pursuits face much higher degrees of risk than do faculty who engage in entrepreneurial activities. Therefore, research addressing the outcomes and consequences of student entrepreneurship is warranted.

CONCLUSION

The purpose of this study has been to explore the motivations, practices, and agendas of faculty within a wide variety of academic disciplines who have engaged in an institutionalized model of entrepreneurship education. While generalization is limited, valuable insights have been developed for both faculty and administrators associated with or interested in the expansion of entrepreneurship education across the disciplinary landscapes that comprise colleges and universities. First, the institutionalization of entrepreneurship education at EU was purposeful in recruiting faculty with pre-existing interests in entrepreneurial principles, strategies, and activities. Second, risks associated with the professors participating in an initiative located outside of disciplinary boundaries were minimized by seeking out tenured faculty with relatively stable professional status and standing within the university. Third, incentives specific to each faculty participant's existing professional agenda were embedded in the entrepreneurial expansion model. Finally, entrepreneurship education was aligned with EU's institutional priorities (i.e., economic development) as a means of gaining political legitimacy across the campus. The proffered points constitute one possible framework for the institutionalization of entrepreneurship education at other colleges and universities.

In closing, entrepreneurship education was leveraged by certain EU faculty to advance a wide range of agendas. These agendas, which were educational, economic, and social in scope, are considered entrepreneurial in both design and practice. The realized and anticipated benefits of the entrepreneurial activities included the diversification of student learning and faculty scholarship; economic, social, and political gains by individuals and academic departments; and social advancements within disenfranchised communities. This study has provided rationale and a blueprint for higher education professionals seeking to expand entrepreneurship education beyond the management fields.

REFERENCES

Bornstein, D. (2004). *How to change the world: Social entrepreneurs and the power of new ideas.* Oxford: Oxford: University Press.

Carey, S.J. (2005, Spring). From the editor. *peerReview,* 3.

Charney, A., & Libecap, G. (2003). The contribution of entrepreneurship education: An analysis of the Berger program. *International Journal of Entrepreneurship Education,1* (3), 276-288.

Creswell, J.W. (2005). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (2nd ed.). Columbus, OH: Merrill/Prentice Hall.

Creswell, J.W. (2002). *Research design: Qualitative, quantitative, and mixed methods approaches (2nd Ed.).* Thousand Oaks, CA: Sage.

Creswell, J.W. (1998). *Qualitative inquiry and research design: Choosing among five traditions.* Thousand Oaks, CA: Sage.

Dees, J.G. (October 1998). *The meaning of social entrepreneurship.* Retrieved February 6, 2006, from REDF Web site: http://www.redf.org

Drucker, P.F. (1993). *Innovation and entrepreneurship.* New York: Harper Business.

Ewing Marion Kauffman Foundation (2007). *Entrepreneurship education without Boundaries: Kauffman Campuses seek to make entrepreneurship a college-wide experience.* [on-line]. Accessed: April 12, 2007.http://www.kauffman.org/items.cfm?itemID=475

Fiet, J.O. (2001a). The theoretical side of teaching entrepreneurship. *Journal of Business Venturing, 16,* 1-24.

Fiet, J.O. (2001b). The pedagogical side of entrepreneurship theory. *Journal of Business Venturing,* 101-117.

Finkle, T.A. & Deeds, D. (2001). Trends in the market for entrepreneurship faculty, 1989-1998. *Journal of Business Venturing, 16,* 61-630.

Geiger, R.L. (2004). *Knowledge and money: Research universities and the paradox of the marketplace.* Stanford, CA: Stanford University Press.

Greene, P.G., Katz, J.A., & Johannisson, B. (2004). From the guest co-editors. *Academy of Management Learning & Education, 3* (3), 241-242.

Hildebrand, D.L. (2005, Spring). Academics are intellectual entrepreneurs. *peerReview,* 30-31.

Katz, J.A. (2003). The chronology and intellectual trajectory of American entrepreneurship education 1876-1999. *Journal of Business Venturing, 18,* 283-300.

Kirp, D.L. (2003). *Shakespeare, Einstein, and the bottom line: The marketing of higher education.* Cambridge, MA: Harvard University Press.

Kuratko, D.F. (2006). A tribute to 50 years of excellence in entrepreneurship and small business. *Journal of Small Business Management, 44,* (3), 483-493.

Kuratko, D.F. (2005). The emergence of entrepreneurship education: Development, trends, and challenges. *Entrepreneurship: Theory and Practice, 29* (5), 577-598.

Lee, J.J., Oseguera, L., Kim, K., Fann, A., Davis, T., & Rhoads, R.A. (2004). Tangles in tapestry: Barriers to graduate student unionization. *Journal of Higher Education, 75* (3), 340-361.

Lounsbury, M. & Glynn, M.A. (2001). Cultural entrepreneurship: Stories, legitimacy, and the acquisition of resources. *Strategic Management Journal, 22,* 545-564.

Mars, M.M. (2006). *The emerging domains of entrepreneurship education: Students, faculty, and the capitalist academy.* Unpublished doctoral dissertation, University of Arizona.

Marshall, C., & Rossman, G.B. (1995). *Designing qualitative research.* Thousand Oaks, CA: Sage.

Meyer, G.D. (2001). Major unresolved issues and opportunities in entrepreneurship education. Coleman White Paper, USASBE National Conference, February 2001.

Shein, E.H. (2004). *Organizational culture and leadership.* (3rd ed.). San Francisco: Jossey-Bass.

Slaughter, S., & Leslie, L. (1997). *Academic capitalism: Politics, policies, and the entrepreneurial university.* Baltimore: Johns Hopkins University Press.

Slaughter, S., & Rhoades, G. (2004). *Academic capitalism and the new economy: Markets, state, and higher education.* Baltimore: Johns Hopkins University Press.

Solomon, G.T., Duffy, S., & Tarabishy, A. (2002). The state of entrepreneurship education in the United States: A nationwide survey and analysis. *International Journal of Entrepreneurship Education, 1* (1), 65-86.

Stake, R.E. (1995). *The art of case study research.* Thousand Oaks, CA: Sage.

Thomas, A.S., & Mueller, S.L. (2000). A case for comparative entrepreneurship: Assessing the relevance of culture. *Journal of International Business Studies,* 31 (2), 287-301.

WEBSITE WORKSHOPS FOR SMALL BUSINESS ENTREPRENEURS

Larry R. Dale, Arkansas State University

ABSTRACT

The objectives of the project described in this study were to: (1) provide small business owners with useful information on the internet, valuable websites, and software and aid in the establishment of websites that would improve the bottom line of 69 small businesses in Northeast Arkansas. We discovered that our workshop effort did increase the income of these struggling small business operations over a four year period of (2) to help participants use that information in their business and (3) and to utilize university students in helping set up websites and developing presentations on that business that would improve the bottom line of those businesses. We were successful in helping them develop sales of nearly 8 million additional sales from the establishment of websites.

PRIMARY OBJECTIVES

The basic objectives of the project described in this study were to: (1) provide small business owners with useful information on the internet, valuable websites, and software (2) to help participants use that information in their business and (3) and to utilize university students in helping set up websites and developing presentations on that business that would improve the bottom line of those businesses.

Dr. Dale and a team of eight SIFE students thought it would be most helpful if we developed a five-day credit seminar that focused on the numerous small businesses in the area that were minority- and female-owned, since they had a high failure rate. We planned our first workshop for Monday-Friday, January 22-27, 2004. We had 24 applicants within 7 days of sending out our initial flier and a waiting list of 42. We conducted a second workshop the week of March 10-15 to accommodate the overflow. The success of our first two workshops caused us to create another workshop in 2005 and a fourth one in 2006. We had a total of 94 participants in all four workshops representing 69 small Northeast Arkansas businesses. Our population of 94 participants consisted of 79 women and 15 men. The annual income of the representative businesses ranged from 0 (6 teams were planning on starting a business within the next one to 6 months) to $555,325, with an average annual income of $162, 266 and a total group income of $17,806,485. The teams ranged from 1 to 3 individuals representing the 69 different businesses. These businesses included 50 female owned and operated businesses, 8 male owned businesses, with a spouse-helper and 11 jointly owned businesses. We had a fairly good mixed representation by race/national origin with

39 of the 69 businesses owned by African-Americans, 7 by Asian-Americans, 8 by Hispanic-Americans, 1 by a handicapped person, 1 by a native-American, and 13 by Caucasians. Thirty -eight percent of the businesses were food-related services such as restaurants, coffee houses, and restaurant supply firms. Thirteen percent were small manufacturing firms. The remaining forty-nine percent were retailers including two hair care services, three bookstore owners, and one gas stations operator and the rest in dry goods and franchise businesses. All had one thing in common; they wanted to find ways to make better use of their computers and through that technology, advance their business. We believe that we successfully fulfilled that dream. We discovered that after receiving our help the group's income increased to $20,510,052.50, a difference of $2,763,567.50 in 16 months. That 13% increase in sales was far above the reported growth of 3.78% from our control group of 15 businesses from the same area. We could also find no significant contribution to the bottom line of the company from the sale of new products or the expansion of the facilities or addition of new products.

DESCRIPTION OF THE WORKSHOP EXPERIENCE

SIFE students planned and executed the program in teams. A program flier detailed the schedule of events for the businesswomen.

Day One

The program began with a welcome and introduction of some dignitaries who were supporters and contributors to our program. After welcoming the participants to the event and introducing the SIFE Team, Barbara Holloway, MBA student and President of the 2004 SIFE Team, provided a spirited welcome on behalf of the students. We then gave a pre-service survey to help us evaluate our effectiveness.

Next came an ice breaker developed by the SIFE Team to get the businesswomen started thinking about technology and to promote networking, which got the workshop moving in a productive direction. Then we proceeded to introduce all of the participants. The staff included Dr. Dale, Sam Walton Fellow and Professor in the College of business and seven SIFE students.

Next, the SIFE Technology Coordinator developed a PowerPoint presentation introducing the businesswomen to the technology of E-Commerce. This half-hour presentation on the basics of e-commerce covered basic information.

Each participant was assigned to a group and given one of five different assignments, which they were to research and report back to the group, using the websites discussed. The information was available through the sites produced in our earlier presentation and through our handout "Websites for Small Business." Each member of the group was to explore the problem individually and then get back together and complete a final report with names of the websites and details about

its usefulness. From 11:00 until 12 participants were given time to explore the net and complete their assignment. We also gave them an hour after lunch to continue the assignment.

During the lunch break a team of five SIFE members looked at the assignments and gave some help where needed. The workshop participants enjoyed lunch and a presentation by Mr. Mark Duckworth, President and CEO of Optus Telemation in Jonesboro. Optus Telemation is a private firm that buys used telecommunication equipment and then refinishes it for markets, especially to small businesses in a five-state area of the mid-South. He gave examples of ways that his firm used the Internet to obtain information, find clients, and advertise his product. Optus has grown from a local business with $100,000 in assets to a five-million dollar company in less than 6 years. Mark is an ASU MBA graduate in Business who became successful in his own small manufacturing business. Questions and answers followed. The remainder of the afternoon was spent exploring and discussing each assignment.

Day Two

The second day began with an open discussion of additional websites and information related to the five questions, since students were asked to continue the assignment at home spending at least two hours on the Internet. We allowed each group to report their findings.

Beginning at 10:00 A.M., we had a presentation by SIFE team members on developing a website for your business. This began by presenting our guide to developing a PowerPoint presentation, produced and published by our SIFE Team especially for this course. These PowerPoint presentations could be used at sales conferences and for marketing expositions, or could be the basis for establishing a website. The publication was called the "Business Person's Guide to PowerPoint." Our students offered to set up a website for any business represented upon request. We had requests from 58 of the 69 businesses represented within three months of the workshop and a total of 64 workshops within a year.

From 11:00 A.M. to 12:00 noon, we demonstrated the use of our Sony digital camera and promised to allow them use of the camera to take pictures and even short film clips of their business. Before lunch we gave each participant a list of questions they would want to answer in making their business presentation. These included the Who?, What?, When?, Where?, How? questions a journalist must ask to write a story. After lunch we helped the groups plan their presentation, by creating a storyboard that sequenced the information they wanted to present in their PowerPoint and what they might want to photograph to match the dialogue. That night our SIFE team put the finishing touches on the workshop presentation. The participants were loaned Sony digital cameras and the aid of a student, if requested, to photograph their store for the presentations.

Day Three

We continued the workshop activity begun on day two. Other uses of the PowerPoint program were used to add animation and cartoons, set up 18-second film clips, change colors on backgrounds and charts, and add photos to the presentation. From 10:00 A.M. to 11:00 A.M. we demonstrated ways of linking your website to daily specials offered on your site and information on how to make a purchase. All of those establishing websites wanted this capability.

After lunch we continued helping individuals set up and create their PowerPoint. This was carried forward on Thursday as well, since we gave them two days to collect all of their pictures for the presentation. We planned to spend Friday presenting each of our final projects and to provide both verbal and written critiques of each others work.

On Friday we had presentations, which we treated like a film festival. Each participant was allowed to show their presentation and discuss other things they wished to incorporate in their website. We gave 10 minutes for each participant to critique the presentation and offer suggestions for improvement. The grade was based on the quality of their presentation. The workshop lasted from 8:00 A.M. to 3:30 P.M. for a total of 37 contact hours, sufficient to award 3 hours of graduate credit to those who desired it. We ended with a post-test and exit survey to give us feedback on our effort. We often continued our effort in helping the business beyond the workshop. ASU students logged more than an average of 213 hours on this project over a 10 month period.

UNIQUE ASPECTS AND FEATURES

One unique aspect of our innovative approach is the fact that we were able to give three hours of credit for the workshop, good toward the MBA Program. This course involved practical solutions to real problems along with credit toward a degree.

Another unique aspect is that we utilized college students to provide the individualized consulting. This provided the students with needed practical experience, while helping a struggling business with valued input. Students were carefully screened for participation on this project. Both groups benefited from the experience. We made sure that students had a competent faculty consultant available for any help in establishing sites and PowerPoint. We wanted some assurance for both the student and businessperson that they were getting a quality service. This was ASU's first experiment in using students as mentors to area businesses and it was well received. Two ASU College of Business students ended up turning their service on this project into an internship, for which they earned 5 hours of credit.

SOURCES OF FUNDING

There is never a charge for our services. Participants did pay for a meal each day during the workshop, since we had lunch each day from 12:00 noon to 1:00 P.M. Each participant was

responsible for signing up for credit and paying tuition. It was not required, although 85% of the classes did take the class for credit. The total costs for the program was $3,121.75. Dr. Dale was paid a regular salary for his efforts, as the instructor, by the University. The additional funds came from the ASU SIFE Team budget or the Center.

EVALUATION OF BENEFITS

Participants were asked in advance of the workshop to take a revised Test of Economic Literacy [TEL]. This revised nationally normed test was developed by the National Council on Economic Education. The pretest mean of 25.09 was below the national average of 40.55 while the post-test mean of 42.81 was well above the national average. We researched these details further and discovered that this difference was significant at the .01 level of testing using a Chi-square test of significance.

We also ran a standard regression analysis on the data using the following hypothesis to determine which factors contributed most to the success of the individual business. The independent y variable was change in profit after 14 months as reported in our follow-up survey as a percentage increase form the pre-workshop period. Our dependent x variables included:

X1= Gender	X2= Race	X3= Age
X4=Capitalization	X5=Workshop Attendance	X6= Website
X7= number of website hits	X8=Website Sales	X9=Store Sales
X10= Increase in Sales	X11=Hours Creating Website	X12=Dif of Mean
X13=Store Location	X14=Customers 14 mths	X15=Bus. Type
Y=bo+ x1 + x2 + x3 + x4 + x5 + x6+ x7 + x8 + x9 + x10 + x11+ x12 + x13 + x14 +x15		

We conducted a follow-up self-reporting survey 14 months later that included all groups and a control group of 15 local businesses which were not part of our group. We sent a mail survey and had a 62% return on our first attempt. We went back to the remaining 38% with a telephone survey to determine the reasons for lack of cooperation on the original survey. Two individuals did not go through with the opening of their new business, one was going through a divorce and four had moved from the area. The other 8% did not take the original survey and gave us selected information, which we did not use in the survey because it was incomplete. We discovered that all of the dependent x variables were significant except for race, gender, age and hours spent on developing the website.

Looking at the factors that proved significant at the .01 level of significance on a two-tailed t-test of significance we begin with capitalization. The estimated value of cash and property ranged

from a low of $123,665 to $2.7 million. In general, the more assets held the greater the income and profit of the company. This came as no surprise.

Attendance at the workshop also proved significant with those participating doing significantly better than our control group. This demonstrated the real success of our workshop. The establishment and use of a website developed at the workshop also proved significant. This was measured by the number of hits over a 14-month period, which ranged from a high of 18,344 to a low of 122 and an average of 2,991. The more hits the better the chance of sales and the higher the income and profit. Store sales also proved significant.

Time spent developing a website did not prove to be significant. We believe that is because there was very little difference between those who spent a great deal of time and those who did not with a high of 421 hours and a low of 182.

The author was pleased to discover that the difference between the pre and post experience mean was also significant. Those who learned more about entrepreneurship and economics increased their income more than those who did not. Knowledge is power. The number of customers would be higher for those whose income increased the most.

We were not surprised to see that location was also a significant predictor of success. We assigned dummy variable with (1) representing those outside the large Jonesboro market; 2) Those within 5 miles of Jonesboro; 3) Downtown Jonesboro, 4) those on Caraway [entrance to the University.] Those businesses closer to the university did better than those further away from the center of activity in Jonesboro, which is a town of over 50,000 with major medical and shopping facilities and a state university of over 11,000.

Finally the type of business was also significant. Again we used a dummy variable. We were most pleasing with the impact of our workshop and website services on the bottom-line of these businesses. Dummy variables were used with a 1- representing restaurants; 2-representing food services; 3- nonfood retail services, 4- franchise sales 5-manufacturing. Business selling food and food related services did not have as high an income or profit as manufacturing and retail services. We also used the same statistics to check and see if performance on the test was related to income and discovered that the only factor that was a significant predictor of success on the test was attendance in the class. We were able to rule out sex, race, age, educational background or years of business experience as significant predictors. These people picked up some entrepreneurial and economic information because of the class. We also included 10 questions related to the technical details given in the course that were included in our findings.

When asked participants to rate the workshop on a scale of 1 to 10, with 10 being excellent and 1 poor, we got a range of ratings from 7–10 with a mean rating of 9.83, representing outstanding from the four workshops. The workshop evaluations were overly flattering. When asked if they would recommend the workshop to other business we got 58 affirmative responses from the combined workshops. We considered this project a great success and plan to duplicate it two more times, possibly moving it around the state. We also used a pre-event and post-event survey to determine if our participants took what they had learned and profited from the experience. The

results of this one-year-later survey were particularly rewarding. Participants were more willing to use the Internet to look for both customers and suppliers using the net to help their bottom line. We also found that all but two of our businesses participants eventually either established a website or utilized the PowerPoint presentation to increase sales and customers.

Table 1: Regression Statistics

Independent X variable	Coefficient estimate	Sign 2-tailed test
X1=Gender F (1) M (20)	-43.50	.2050
X4=Race	6.54	.1815
X3=Age	.1251	.036
*X4=Assets	1.177	.0001
*X5=Workshop Participation	.2373	.00009
*X6=Website Established	.7142	.0001
*X7=Website Hits	1.063	.00098
*X8=Website Dollar Sales	1.507	.0001
*X9=Store Sales	2.221	.0001
*X10=Increase in Sales	3.301	.0001
X11-Hours Website	-50.33	.0672
*X12=Mean Difference	.3345	.0001
*X13=Location	.2215	.0001
X14=Customers	*.1131	.0001
X15=Business Type	*.1451	.0091

OUTCOMES

We were able to help everyone who requested help on creating a website bringing the total with a website to 96%. A year later we returned with a post-event survey. These businesses reported a total net gain from in-store sales ranging from $3,678 to $37, 402 with an average gain of $14, 325 that they gave credit to the workshop experience through the website. These businesses also believed that they received an increase in store purchases of an average of 13% due to our efforts. We believe that we helped struggling entrepreneurs in our area achieve great success. The results of our exit survey were:

Table 2: Exit Survey Results		
Question	Pre-Event Response	Post-Event Response
How many of you have computers in your business?	96%	96%
How many of you us that computer for business applications?	80%	96%
How many of you have a website?	40%	96%
Rate the usefulness of the workshop for your business on a scale from 1 to 10 with 10 as excellent and 1 of no use.	8.4	9.8
Score on technology test.	33% mean	79.34% mean
I would recommend this class to a colleague.		86%
I believe that the workshop will increase my profit.	14%	96%
I have used the internet to find customers.	16%	96%
I have used the internet to find suppliers	10%	76%
I believe that this workshop has increased my profit.		86%

We were particularly pleased that we were able to help twenty -three struggling minority businesses increase their bottom line profit by 23.48% over the course of the next year. This included both increased store sales and Internet sales of $3.24 per hit in over 4,000 purchases. The female-owned businesses also did very well with a profit increase estimated at 16.98% over the course of the next year. This also included increased store sales and Internet sales averaging $3.88 per hit on a total of nearly 24,590 hits. The groups that performed the best were the couple-owned businesses, or joint partnerships, with a profit increase estimated at 37.11% over the course of the next year. This also included increased store sales and Internet sales averaging $7.68 per hit on a total of nearly 43,240 hits. The businesses that had the most success were the manufacturing businesses and the non-food service related businesses. Overall this was a very successful experiment that brought college students in contact with small business and helped both groups gain experience and knowledge that led to success. The 96 businesses had a total of 179 employees whose lives were made better due to our help, since 32% reported that their renewed success made it possible to raise employee salaries. We estimate that the total increase in income from our service in all 96 businesses was nearly $8 million or an average of $117,391.30 per business and a range from a high of $237,500 to a low of $2,20. This boost in income will have a multiplier effect throughout our community.

Table 3: Workshop 1 Outcome 2004-2006				
Spastics	2004 Workshop 1	2004 Workshop 2	2005 Workshop	2006 Workshop
# of Teams	16	16	17	20
# of Participants	22	25	24	25
Years in Business Range	0 to 7 years	0 to 14 years	.5 to 14 years	1 to 18 years
Mean Years I Business	2.57 years	3.56 years	4.85 years	5.21 years
Pretest Range	13 – 40	14 – 49	11 – 38	12 – 89
Pretest Mean	23.06	31.32	24.89	21.12
Post Test Range	14 – 52	11 – 52	13 – 46	18 – 47
Post Test Mean	42.75	47.19	39.30	41.98
Restaurants	8	16	11	10
Retail	13	16	11	10
Manufacturing	2	1	2	4
Hits Range	122-3, 1442	247-4001	19-4521	321-7, 545
Mean Hits	1,254 105 per month	1,244 104 per month	2,111 195 per month	3,333 261 per month
Sales per Hits	$13.11	$8.85	$7.81	$22.31
1 year Mean Sales Increase	7.51%	8.32%	19.12%	16.66%
Race White	9	10	8	12
African-American	3	5	9	8
Asian	1	1	3	2
Hispanic & Native American	0	3	3	2
Range Income	$0 - $330,006	$170,222 - $402,100	$430,350 - $27,500	$555,325 - $175,200
Mean Income after 12 months	$162,266	$174,625	$237,110	$421,360
Mean Sales Increase from Year	11.91%	7.7%	12.27%	17.22%
Total Income after 12 months	$2,209,921	$2,794,200.50	$5,453,531	$10,112,400
Total Income Prior to Workshop	$2,071,759	$2,579,047	$4,784,383	$8,371,296
Net Gain	$138,162	$215,153.50	$669,148	$1,741,104

REFERENCES

Becker, W. E., Jr. (1983). Economic Education Research: Part 1, issues and questions. *Journal of Economic Education* 14(Winter): 10-17.

Litwin, M. (1995). *How to Measure Survey Reliability and Validity.* London: Sage Publications.

Nunnaly, J. (1978). *Psychometric Theory*. New York: McGraw-Hill.

O'Brien, M. & S. Ingels. (1987). The Economics Value Inventory. *Journal of Economic Education* 18 (Winter): 7-17.

Smith, G. (1985). *Statistical Reasoning*. Boston: Allyn & Bacon.

Soper, J. & W. Walstad. (1983). On Measuring Economic Attitudes. *The Journal of Economic Education* 14 (Fall): 4-17.

Whaples, R. (1995). Changes in Attitudes About the Fairness of the Market Among College Economics Students. *The Journal of Economic Education* 26 (Fall): 308-313

PLAGIARISM AND BUSINESS PLANS: A GROWING CHALLENGE FOR ENTREPRENEURSHIP EDUCATION?

Robert J. Lahm, Jr., Middle Tennessee State University

ABSTRACT

Entrepreneurship students in numerous academic programs face a unique and arguably difficult assignment: that of creating a business plan. Unfortunately, some students purposely cheat, and others lack sufficient competencies in research and writing, such that they violate academic integrity policies. While plagiarism has been a hot topic in recent media coverage, and in education at large, there is scant research in existence to date that addresses plagiarism specifically as it relates to business plans and entrepreneurship courses. Numerous researchers have observed an overall increase in various forms of academic dishonesty as well as shifting attitudes among students. This paper discusses business plan plagiarism cases and methods by which they were detected and prosecuted through the Judicial Affairs offices at one institution. The author also provides a possible impetus and suggestions for future research as it pertains to a growing challenge for the academic (and practical community).

PLAGIARISM: JUST HOW BAD IS IT?

As a Harvard undergraduate student sat across from her in an interview on the *Today* show, a "skeptical" Katie Couric asked probing questions about the plagiarism allegations that had been lodged against the student (Finkelstein, 2006). According to *Publishers Weekly* and other sources, the student had reportedly received a $500,000 advance for her book deal (while she was still in high school) from publisher Little, Brown & Company (Deahl & Milliot, 2006; Finkelstein, 2006). Meanwhile, the publisher of books from which the student was alleged to have plagiarized, Crown Publishing Group, identified over 40 instances where text passages bore questionable similarities (Finkelstein, 2006).

The creator of the site, PlagiarismToday.com, related his reason for becoming involved in an aggressive effort to track down and eliminate (primarily) Internet-based plagiarism by declaring: "I never wanted to be a plagiarism fighter, much less a plagiarism expert. That role was forced upon me approximately four years ago when I discovered that nearly six years worth of my poetry and literature" had been stolen (Bailey, 2006). The discovery of the theft occurred when someone asked if the author's work was on more than one site; it was subsequently determined that the individual who had reproduced this author's work had done so by creating a mirror site, using a different name.

Individuals who write articles online and post them to article sites also complain about theft (Article Plagiarism, 2006).

NBC recently severed its ties with a freelance "producer who plagiarized passages from" the popular television series, 'The West Wing' (Freelance Producer, 2006). The discovery of this instance was the result of an audience member's email, which alerted the network to the plagiarized material. ABC News Primetime aired an investigative report suggesting "*A Cheating Crisis in America's Schools*" (A Cheating Crisis, 2006). After Wal-Mart heiress Paige Laurie was accused by her former college roommate of buying custom papers and other work (while they both attended the University of Southern California; the roommate's story was originally aired on ABC News' *20/20*), The University of Missouri removed the 22-year-old's name from its new sports arena; Laurie's parents' donation provided the funding for that arena to be built (Isaacson, 2004).

Nitterhouse (2003) cited a series of previous studies which indicated several professional disciplines have reported plagiarism problems, including marketing, computer science, journalism, nursing, and science (p. 215). In the June 2006 issue of the Association for Computing Machinery's journal, *Communications of the ACM*, published a plagiarism policy statement based (in part) on the following rationale (Boisvert & Irwin, 2006):

> *Incidents of plagiarism are escalating in computer science and engineering. While plagiarism cases were very rare during ACM's first 40 years in the publishing business, several cases have been uncovered annually in recent years. Most of these cases have been extreme, blatant violations of ethical practice. ACM has dealt with papers published in conference proceedings in which very little change was made in the copyrighted plagiarized article except for a new list of authors. We've seen other cases in which two articles differed completely in their wording, but placed side-by-side we discovered that corresponding sentences said exactly the same thing throughout the two articles.*

In every context, be it among professions, on the Internet, in music and entertainment, and in academic writing -- on the part of students *and professors* -- (Bartlett & Smallwood, 2004), plagiarism and other forms of dishonesty have been observed to be on the rise by researchers. So pervasive is the problem of plagiarism, there are numerous websites and even a new scholarly journal, *Plagiary*, which, according to the journal's associated website, was created: "To bring together the various strands of scholarship which already exist on the subject, and to create a forum for discussion across disciplinary boundaries" (Lesko, 2005). The aforementioned journal is associated with a sister website, which addresses more famous cases of plagiarism and their perpetrators, appropriately named: FamousPlagiarists.com (Lesko, 2004). According to the site's home page:

> *It just goes to show that even the best authors—including some of our most (in)famous writers, politicians, scientists, civil rights activists, science fiction authors, theologians, musicians, historians, and even international terrorists—are not above stealing the words and ideas of others.*

REVIEW OF EXISTING LITERATURE ON PLAGIARISM AND BUSINESS PLANS

After conducting searches using the *ProQuest* database (set to return full text documents from scholarly journals), the author of this paper found that existing research, specifically as it pertains to plagiarism and business plans is lacking in the literature. Search term combinations (with the Boolean "and") included "entrepreneurship" and "plagiarism"; "business plan" and "plagiarism"; and "business plan" and "cheating" were all returned with zero results. Similar searches using the *Eric* database were also conducted, again with zero results. *Google* search efforts on the terms "business plan" and "plagiarism," returned (top page ranked) hits that were typically linked to entrepreneurship courses, and their corresponding syllabi and plagiarism policy statements. (Author's note: It is recognized that *Google* is not considered to be a reliable scholarly research tool.) Widening the search to the topic of plagiarism more generally showed a clear consensus among researchers that plagiarism and cheating are rampant in the public sector as well as in the academic community at large (Chapman, Davis, Toy, & Wright, 2004; Crown & Spiller, 1998; Kleiner & Lord, 1999; Nitterhouse, 2003; Ogilby, 1995). A cover story article in *U.S. News and World Report* declared: "Academic fraud has never been easier. Students can tamper electronically with grade records, transmit quiz answers via pager or cell phone, and lift term papers from hundreds of Web sites" (Kleiner & Lord, 1999). Duke University's Center for Academic Integrity (CIA) has sponsored longitudinal research through an ongoing project which has surveyed approximately 50,000 students on "more than 60 campuses" (McCabe, 2005). Its most recent results, based on findings released in June 2005, indicated that "on most campuses, 70% of students admit to some cheating"; 40% admitted to Internet plagiarism; and (disturbing as it may be to the author of this paper on this particular topic) 44% of faculty "who were aware of student cheating in their course in the last three years, have never reported a student for cheating to the appropriate campus authority" (McCabe, 2005).

While the above described review does not exhaust every possible means of accessing existing research that is specific to plagiarism and business plans, the lack of returned search results clearly indicate that this present paper concerns an area which deserves additional attention on the part of entrepreneurship scholars. Further it is acknowledged that plagiarism at large is not necessarily generalizable to business plans. However, if one is willing to question the likelihood that a pervasive phenomenon in education and every facet of society at large either has already or will impact entrepreneurship education, the author of this paper would suggest that a serious research effort is deserved.

PLAGIARISM CASES AND BUSINESS PLANS AS AN IMPETUS FOR THIS PAPER

While the above overview is meant to provide a broader introduction to the enormity of the plagiarism problem at large, this paper's primary focus is plagiarism (a form of cheating commonly identified in academic integrity policy statements) as it pertains to business plans. As an assignment,

one might suggest that business plans are not extremely dissimilar when they are compared to term papers, or that business plans can be even more difficult. In either instance, business plans are generally viewed by students as well as members of the practitioner community to be challenging assignments, especially if they are approached with dedication and subjected to rigorous review (such as in business plan competitions, or when they are used to attract funding).

During the three semesters immediately preceding the development of this paper, its author observed apparent problems with plagiarism while delivering an entrepreneurship course at a public AACSB accredited university (which enrolls approximately 22,000 students). Although additional instances of suspected inappropriate behavior (academic dishonesty) were deemed to be uncertain based on an inability to obtain sufficient written evidence to document suspected plagiarists' sources -- and were therefore not submitted for review by the institution's Judicial Affairs office -- students were found to be responsible in a total of 18 successfully prosecuted plagiarism cases. In other words, there may have been more acts of plagiarism, but, cases that were not supported with sufficient evidence to suggest with near certainty that subsequent proceedings would result in a finding of "responsible" were not pursued (Frequently Asked, 2005).

According to enrollment records, these 18 cases were among those submitted by (or due from) 176 students who were distributed in seven sections over the three semester period. This paper also discusses preventative measures which were in place during the period under observation as well as additional steps which are under consideration for implementation. Table 1, below, provides additional data with respect to the distribution of the successfully prosecuted cases:

Table 1: Confirmed Plagiarism Cases

Class Size	Cases	Term	Year	Time	Days
29	4	Spring	2006	12:40-2:05	M-W
26	1	Spring	2006	2:20-3:45	M-W
26	5	Spring	2006	4:30-7:30	M
81	10				
Percent	12%				
17	1	Fall	2005	6:00-9:00	W
17	1				
Percent	6%				
31	3	Spring	2005	9:40-11:05	T-Th
27	0	Spring	2005	11:20-12:45	T-Th
20	4	Spring	2005	4:30-7:30	T
78	7				
Percent	9%				

Data from course records and findings from Judicial Affairs wherein students were determined to be "responsible."

An examination of the latest reported campus-wide data from the institution's Office of Judicial Affairs (Judicial Affairs, 2005) provides some additional insight, with some limitations. First, the reporting period for the Judicial Affairs data only overlaps the data collection period used by the author of this paper; the two data sets intersect during the spring 2005 semester. Second, the campus-wide data covers the period from summer 2004 to spring 2005 (ending on May 31, 2005). Notwithstanding these limitations, it is perhaps interesting to note that campus-wide, there were 123 academic misconduct violations during the aforementioned year-long reporting period. During the spring 2005 semester (as can be seen in Table 1), 7 of the successfully prosecuted business plan cases are presumed to be a subset of the 123 annual cases, reported campus-wide.

Given that there are 800 full-time faculty and as of fall 2005, reported enrollment was 22,554 students (Facts About, 2006), the 7 cases in a single semester, representing 5.7 percent of the total cases campus-wide (for an entire year) seems disproportionately high. As can be seen in Table 2, below, about ten percent of all students from whom business plans were collected (or due), based on course enrollments were found to be responsible for plagiarism in connection with their submitted business plans.

Table 2: Total Cases During Observation Period

Term	N (Students)	Cases	Sections
Spring 2006	81	10	3
Fall 2005	17	1	1
Spring 2005	78	7	3
TOTALS	176	18	
Percent		10%	0.102272727

Cumulative data reporting number of students, semesters, sections, and cases from course records and findings from Judicial Affairs wherein students were determined to be "responsible."

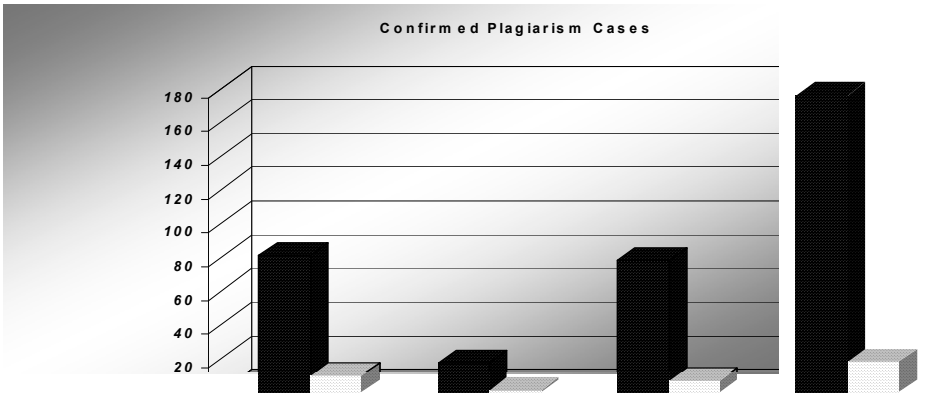
Figure 1, below, illustrates the distribution of confirmed business plan plagiarism cases during the three semesters under observation (which, unfortunately, are not the same three semesters for which campus-wide data were available).

PREVENTATIVE MEASURES

Perhaps one of the biggest questions one might ask is: how can cheating and plagiarism be mitigated or stopped (von Dran, Callahan, & Taylor, 2001)? It is generally assumed that individuals who are capable of cheating while they are in school, would be willing to commit additional ethical breaches once they have entered the business world (Crane, 2004; Lawson, 2004; Ogilby, 1995). There are disappointing findings within the literature (primarily business ethics related research),

which suggest that changing ethical behavior of values may be difficult (Kidwell, Wozniak, & Laurel, 2003).

Figure 1: Confirmed Plagiarism Cases



	Spring 2006	Fall 2005	Spring 2005	TOTALS
N (Students)	81	17	78	176
Cases	10	1	7	18

If there is the possibility of combating plagiarism, researchers would probably be in agreement with the adage, "an ounce prevention is worth a pound of cure"(McCabe, 2005; Peppas & Diskin, 2001; Sims, 2002; von Dran, Callahan, & Taylor, 2001). Some researchers have suggested the implementation of an honor code (Kidwell, Wozniak, & Laurel, 2003), and accrediting bodies (Peppas & Diskin, 2001) as well as trends in business school curricula indicate increasing interest in ethics courses and content; these may or may not change anything (Peppas & Diskin, 2001; Sims, 2002; von Dran, Callahan, & Taylor, 2001; Wright, 2004).

Individual faculty who are determined to curtail plagiarism need to clearly express -- preferably during their opening remarks at the beginning of a course -- that they are either contractually (Frequently Asked, 2005) or morally obligated to take steps to curtail plagiarism, (or that for whatever reason or reasons that remain unspecified, they intend to detect and prosecute plagiarism). Academic integrity policies should also be distributed in written form: course syllabi, a faculty Website, and institutional brochures, statements, and the like (if available) are effective communication vehicles.

In this author's case, a business plan grading rubric (Lahm, 2006), which is distributed early in the semester (and discussed), also includes an academic integrity/plagiarism statement, as follows:

> *Absolute Violation of Plagiarism Rules--Paraphrasing of an existing plan (e.g., rewriting a sample plan, sentences, paragraphs, or passages therein; this includes financial information, tables, charts, etc.); collaboration/sharing of documents, text, phrases, passages, or entire plans (used verbatim or modified); usage of entire sentences, paragraphs, data, facts, plans or other materials without*

acknowledgement of sources, and submitted as though the work was the student's own work rather than that of the original author. Other violations of Academic Integrity Policies not described here.

Evidence of an absolute violation of plagiarism rules shall result in the work in question being referred to the appropriate officials for further action and the issuance of a grade of "F" for the course (as stated in the course syllabus).

Faculty should also make clear what the consequences will be: typically, course failure and/or at least no credit for the assignment are stated consequences (based on a review of syllabi and Websites from other faculty, as discussed above). In addition, to curtail the notion in advance that consequences are negotiable based on their impact on an individual student's academic career, this author delivers a statement along these lines: "The burden will be placed on the student to recognize that embarrassment, having to inform parents, loss of scholarships, or any other applicable consequences will not be considered relevant." It is also made clear that the only thing that matters is the official determination by the institution's Judicial Affairs authorities: "responsible" or "not responsible" (Frequently Asked, 2005; Judicial Affairs, 2005).

According to the FAQ's published by the university with which the author of this paper is presently associated (Frequently Asked, 2005), additional sanctions remain undisclosed to faculty members "due to FERPA" (regulations protecting the privacy of student information); however, the following is suggestive of what those additional sanctions may be:

When a student is found responsible for academic misconduct, are they automatically suspended or expelled from MTSU? Not necessarily. We deal with violations on a case-by-case basis. Suspension and expulsion are two possible sanctions, but other sanctions may also include a written reprimand, probation, and/or various educational sanctions such as research assignments and papers.

Methods of detection (discussed below) should be briefly outlined, with a (recommended) emphasis on the instructor's intention to use technology and any other means available to thwart students' attempts to engage in the unacceptable behavior. It should be made clear that even though some students may get away, a significant proportion of students who do cheat can and will be caught (and in the case of this author, summary statistics including the number of students who have been caught are discussed). Some of the literature reviewed while developing this paper showed that instances of plagiarism are sometimes detected after the fact (Bailey, 2006; Bartlett & Smallwood, 2004; Lesko, 2004), perhaps even years later.

The implications of post-course discovery of plagiarism in connection with submitted work (and this author's teaching practices) have not been fully contemplated, but they remain worthy of additional personal reflection as well as discourse among all educators. Thus far, it has been this author's practice to collect students' work in hard copy form, and return that work to them after it has been graded. Future steps to curtail plagiarism might include the development of specific signatory instruments which would serve as a statement of understanding that: 1) a copy of all

submitted materials will be required in both electronic and hard-copy form, and these archived materials will be held indefinitely; 2) materials are subject to review during the course and at any time in the future; and 3) post-course discover may result in future prosecution and the revocation of earned grades. Although the above described future steps have not been fully developed, or investigated relative to the feasibility of implementation, it has occurred to this author that the very idea that a previous instance of cheating could be discovered later may serve as a deterrent.

METHODS OF DETECTION

With the advent of new ways to cheat (Chapman, Davis, Toy, & Wright, 2004; Groark, Oblinger, & Choa, 2001; Kleiner & Lord, 1999; Owings, 2002; Smith, Davy, & Easterling, 2004), particularly those associated with the Internet and technology, new ways to beat plagiarism have also arisen. Websites and new technologies (software and services) that are being made available to educators and institutions are constantly emerging (Martin, 2005; Nitterhouse, 2003; Young, 2001). Rather than exhaustively review these sites and tools in this paper (especially since they have been well reviewed elsewhere), it is suggested that interested entrepreneurship educators utilize a simple search engine string such as "detect plagiarism"; as of this writing, a *Google* search returned over 272,000 hits (retrieved August 31, 2006). The remainder of this section will address some practical ways to detect plagiarism in business plans, most of which can be effectively implemented by entrepreneurship educators who have access to an Internet connection.

In reading submitted business plans, changes in the writer's tone or style may be a tip-off that he or she is copying from other sources. Beyond style, passages that switch back and forth from clean, well written text, to text that is riddled with errors is often another indication. The use of terms that seem beyond the grasp of the student's level of writing proficiency can be an indicator (Owings, 2002). In one of the cases associated with those being reported in this paper, the student's use of the word "infomediary" raised suspicions; it was subsequently determined that the student turned in an entire existing plan which was found on the Internet, except for the student's name on the title page. Plans that are "too perfect," and too complete, also tend to raise suspicions. It is acknowledged that the capabilities of the student population may render some of the above techniques easier, or more challenging.

All of the prosecuted cases discussed in this plan were originally detected using either search strings on popular Internet search engines; side-by-side comparison with plans submitted by classmates (among all course sections, within a given semester); and comparison with sample business plans in Business Plan Pro software. Using quotes (on most search engines), unique text strings, words, and even dollar amounts in financial statements have led to a majority of original sources. This author does not, as yet, have desktop access to some plagiarism software and tools that would be desirable. However, graduate teaching assistants (who may be involved with a first reading of submitted business plans) have been trained in the above methods, and as such have proven instrumental in detecting several plagiarism cases.

LOOKING THE OTHER WAY

Some educators may look the other way and ignore plagiarism (Keith-Spiegel, Tabachnick, Whitley Jr., & Washburn, 1998; McCabe, 2005). Keith-Spiegel and Tabachnick, et al (1998) employed a factor analysis in research which suggested reasons why cheating might be ignored; these reasons were reported as: "insufficient evidence" (the most frequent); "emotional reasons" (described as either due to "stress" or a "lack of courage"; "difficult reasons" (referring to "extensive time and effort required to deal with cheating students"; "fear reasons" ("concern about retaliation or a legal challenge"); and "denial reasons."

According to the experience of this author, as it relates to the decision to enforce academic integrity policies and the impact thereof, concerns about each of the issues suggested by the above findings seem justified. It is not always easy to find evidence; the experience is stressful; finding, documenting, prosecuting, and dealing with the aftermath of plagiarism cases has been extremely time consuming , and difficult; concerns for career consequences exist (especially the fear of creating a reputation among students that leads to diminished popularity and lower student ratings). Despite official statements on the part of academic administrations to the contrary, it is not uncommon to encounter faculty within the academy at large who suggest concern over student ratings as the *de facto* basis for judging a given instructor's teaching performance. Hence, some faculty may be concerned over career consequences as a result of student retaliation through ratings systems.

Relative to this author's own career concerns, a prior mid-western institution did indeed emphasize student retention as a strategic objective. It is believed that in circumstances such as these, as a consequence, an organizational culture can emerge wherein students publicly voice intentions – that is, openly threaten (Owings, 2002) – to control faculty behavior through student opinion surveys, complaints, and similar tactics. However, faculty who share similar concerns might be advised that one should systematically document all such threats and instances of cheating. This is because it is also the case that in such environments, students' own proven tendencies toward academic dishonesty and coercive behaviors serve to invalidate the very ratings that they threaten to utilize against a faculty member.

CONCLUSION

Evidence suggests a disintegration of ethical and performance standards in both the practical and academic business communities. Research, as it pertains specifically to business plans and plagiarism (cheating, et al), is either limited or has not been aggressively pursued by entrepreneurship scholars, to date. However, logical inference strongly infers that if indeed "'Everyone's doing it [cheating],' from grade school to graduate school" (Kleiner & Lord, 1999); students in business related courses tend to cheat more (Chapman, Davis, Toy, & Wright, 2004); paper mills have blossomed (Groark, Oblinger, & Choa, 2001); and there is an there is "A Cheating

Crisis in America's Schools," (A Cheating Crisis, 2006), then entrepreneurship educators should be on the lookout for plagiarism in business plans.

To be realistic, enforcement is probably an individual entrepreneurship educator's own choice (Keith-Spiegel, Tabachnick, Whitley Jr., & Washburn, 1998), notwithstanding any contractual responsibilities (or a willingness to ignore those responsibilities as well as the acts of plagiarism themselves). This author's fear is that academic dishonesty may have already established itself as a systemic, inexorable problem, and that battling cheaters is indeed exactly like fighting cockroaches (Bartlett & Smallwood, 2004): for every one that you do see, there are many more lurking just out of sight. Given the landscape, any educator in any discipline should be compelled to ask, "Who, among my own students, might be cheating?"

While some faculty may ignore this phenomenon, others may simply be unaware that their perceptions may differ from those of students (Kidwell, Wozniak, & Laurel, 2003); of course, sadly, even members of the academy and professions plagiarize, too. At the same time, officials may turn their heads, appease students so as to retain their tuition dollars, or even try to cover up cheating, to protect the reputation and image of both individuals and institutions (Bartlett & Smallwood, 2004; Groark, Oblinger, & Choa, 2001; Keith-Spiegel, Tabachnick, Whitley Jr., & Washburn, 1998). Hence, as it pertains to suggestions for future research, one might begin by contemplating: "Given the pervasiveness of cheating, why should entrepreneurship education, relative to the integrity of business plans submitted by students, be immune?"

REFERENCES

A Cheating Crisis. (2006). A cheating crisis in America's schools — How it's done and why it's happening. April 29. Retrieved August 29, 2006, from http://abcnews.go.com/Primetime/story?id=132376&page=1

Article Plagiarism. (2006). Article plagiarism: Has this ever happened to you? *Small Business Forum*. Retrieved August 26, 2006, from http://www.small-business-forum.com/showthread.php?p=55802

Bailey, J. (2006). The story of plagiarism today. *PlagiarismToday.com*. Retrieved August 26, 2006, from http://www.plagiarismtoday.com/?page_id=221

Bartlett, T., & Smallwood, S. (2004). Professor copycat: Four academic plagiarists you've never heard of: How many more are out there? *Chronicle of Higher Education, 51*(17), pA8-A12, 15p, 13c.

Boisvert, R. F., & Irwin, M. J. (2006). Plagiarism on the rise. *Association for Computing Machinery. Communications of the ACM, 49*(6), 23.

Chapman, K. J., Davis, R., Toy, D., & Wright, L. (2004). Academic integrity in the business school environment: I'll get by with a little help from my friends. *Journal of Marketing Education, 26*(3), 236.

Crane, F. G. (2004). The teaching of business ethics: An imperative at business schools. *Journal of Education for Business, 79*(3), 149.

Crown, D. F., & Spiller, M. S. (1998). Learning from the literature on collegiate cheating: A review of empirical research. *Journal of Business Ethics, 17*(6), 683.

Deahl, R., & Milliot, J. (2006, April 25). Random to press plagiarism claims. *Publishers Weekly Daily*.

Facts About. (2006). Facts about Middle Tennesse State University. Retrieved August 26, 2006, from http://www.mtsu.edu/about_facts.shtml

Finkelstein, M. (2006). Skeptical Couric questions Kaavya. *NewsBusters.org*. Retrieved April 26, 2006, from http://newsbusters.org/node/5085

Freelance Producer. (2006). Freelance producer plagiarizes 'West Wing'. Retrieved May 12, 2006, from http://www.comcast.net/sports/others/index.jsp?cat=OTHERSPORTS&fn=/2006/05/11/389579.html&cvqh=itn_westwing

Frequently Asked. (2005). Frequently asked questions by faculty about academic misconduct. Retrieved August 26, 2006 from http://www.mtsu.edu/~judaff/amfaqs.htm

Groark, M., Oblinger, D., & Choa, M. (2001, September/October). Term paper mills, anti-plagiarism tools, and academic integrity. *Educause,* 40-48.

Isaacson, J. (2004, 11/24/2004). College removes name of Wal-Mart heiress on arena. Retrieved August 29, 2006, from http://www.usatoday.com/money/industries/retail/2004-11-24-walmart-heiress-arena_x.htm

Judicial Affairs. (2005). Judicial Affairs statistics, summer 2004 – spring 2005 (as of 5/31/2005). Retrieved August 15, 2006, from http://www.mtsu.edu/~judaff/stats05.pdf

Keith-Spiegel, P., Tabachnick, B. G., Whitley Jr., B. E., & Washburn, J. (1998). Why professors ignore cheating. *Ethics & Behavior, 8*(3), 215-227.

Kidwell, L. A., Wozniak, K., & Laurel, J. P. (2003). Student reports and faculty perceptions of academic dishonesty. *Teaching Business Ethics, 7*(3), 205.

Kleiner, C., & Lord, M. (1999, November 22). The cheating game: 'everyone's doing it,' from grade school to graduate school. *U.S. News & World Report*.

Lahm, J., (2006). Entrepreneurship: Business plan project feedback (grading rubric). Retrieved August 22, 2006, from http://mtsu.edu/~rlahm/teaching/2900entrepreneurship/BMOM2900BusPlanRubric.pdf

Lawson, R. A. (2004). Is classroom cheating related to business students' propensity to cheat in the "real world"? *Journal of Business Ethics, 49*(2), 189.

Lesko, J. P. (2004). Welcome to FamousPlagiarists.Com. Retrieved August 29, 2006, from http://www.famousplagiarists.com/index.html

Lesko, J. P. (2005). Plagiary: A new scholarly journal. Retrieved August 29, 2006, from http://www.plagiary.org

Martin, D. (2005). Plagiarism and technology: A tool for coping with plagiarism. *Journal of Education for Business, 80*(3), 149.

McCabe, D. (2005). In new CAI research: Levels of cheating and plagiarism remain high. Retrieved August 30, 2006, from http://www.academicintegrity.org/cai_research.asp

Nitterhouse, D. (2003). Plagiarism - not just an "academic" problem. *Teaching Business Ethics, 7*(3), 215.

Ogilby, S. M. (1995). The ethics of academic behavior: Will it affect professional behavior? *Journal of Education for Business, 71*(2), 92.

Owings, K. (2002). Cheaters don't win, but they keep college teachers on their toes. *The Denver Business Journal, 53*(40), A31.

Peppas, S. C., & Diskin, B. A. (2001). College courses in ethics: Do they really make a difference? *The International Journal of Educational Management, 15*(6/7), 347.

Sims, R. L. (2002). The effectiveness of a plagiarism prevention policy: A longitudinal study of student views. *Teaching Business Ethics, 6*(4), 477.

Smith, K. J., Davy, J. A., & Easterling, D. (2004). An examination of cheating and its antecendents among marketing and management majors. *Journal of Business Ethics, 50*(1), 63.

von Dran, G. M., Callahan, E. S., & Taylor, H. V. (2001). Can students' academic integrity be improved? Attitudes and behaviors before and after implementation of an academic integrity policy. *Teaching Business Ethics, 5*(1), 35.

Wright, T. A. (2004). When a student blows the whistle (on himself): A personal experience essay on "delayed" integrity in a classroom setting. *Journal of Management Inquiry, 13*(4), 289.

Young, J. R. (2001, July 6). The cat-and-mouse game of plagiarism detection. Retrieved August 31, 2006, from http://chronicle.com/free/v47/i43/43a02601.htm

ACADEMIC CAREER OPPORTUNITIES IN ENTREPRENEURIAL MARKETING: REVISITING TEACH & MILES (1997)

Richard D. Teach, Georgia Institute of Technology
Morgan P. Miles, Georgia Southern University
David J. Hansen, College of Charleston

ABSTRACT

This study is designed to update and extend Teach and Miles' (1997) empirical study of the career opportunities for marketing academics who have an interest in entrepreneurship. The 1997 study found that entrepreneurship was becoming a more accepted research area in marketing but was not yet well established within marketing departments. In fact, at the time of that study, more than 80 percent of schools offering entrepreneurship housed it in the management area. The current study shows that some progress has been made in entrepreneurship courses being offered by marketing departments, although there is room available for more progress. The results of this study also suggest that entrepreneurship has still not been fully embraced by the marketing discipline, as have areas such as channels management, consumer behavior, or marketing research. Our position is that many of the core issues of marketing such as value creation, satisfaction, and exchanges are facilitated when a firm acts more entrepreneurially.

INTRODUCTION

The past decade has seen a dramatic rise in the number and status of entrepreneurship programs in schools of business and management. The popularity of entrepreneurship courses has increased dramatically among both graduate and undergraduate students…Despite the increase in popularity within the field; there has also been considerable resistance from within the faculties of many institutions to the expansion of entrepreneurship programs. Faculty outside the field have been, and many remain, very skeptical about the validity of entrepreneurship as an academic field, the quality and rigor of entrepreneurship research and the need to hire academic faculty to teach and research in the field (Finkle and Deeds 2001).

Recent research by Finkle and Deeds (2001: 627) found that since the 1993/94 academic year the entrepreneurship field has become somewhat of a "seller's market," at least for well trained management academics; and since then, has experienced strong and consistent growth in the number of tenure track positions. This growing interest in entrepreneurship education in collegiate schools of business appears to be widespread and includes degree/executive education programs, outreach

efforts, internship programs, business plan competitions, and secondary and primary education outreach programs (Solomon, Duffy, & Tarabishy 2002). While Solomon, Duffy, and Tarabishy (2002) classified the level of participating institution, from two-year community colleges to international universities, they did not report on where entrepreneurship programs were located with in the business school (for example in the management department, the marketing department or the technology school).

A common, and long standing, perception is that much of this growth in entrepreneurship programs has been primarily in management or strategic management departments, strengthening the "academic ownership" of entrepreneurship by the management discipline. In addition, business schools with very strong academic reputations are creating entrepreneurship discipline based doctoral programs to "provide pure entrepreneurship faculty" (Kuratko 2005: 588).

However, for decades marketing scholars have also had an interest in entrepreneurship in terms of the unique marketing issues that are faced by individual entrepreneurs, corporate entrepreneurs, family and small businesses, and social entrepreneurs. For example, in a recent discussion of the evolution of research in entrepreneurship Kuratko (2006) categorizes a marketing academic whose career has been devoted to the development of the marketing / entrepreneurship interface, Gerald E. Hills, as one of the significant pioneers in the field of entrepreneurship research who has been instrumental in the legitimization of entrepreneurship as an academic discipline. Hills and LaForge (1992) suggest that an understanding of entrepreneurship may be enhanced by the perspective, research traditions, and alternative philosophical orientations that marketing offers.

Marketing's importance in entrepreneurship is illustrated by Hills, Hultman, and Miles (forthcoming) who cite an earlier study of venture capitalists which ranked marketing as a critical factor for new venture success. In fact, many of the core issues of marketing such as value creation, market research and environmental scanning, satisfaction, and customer relationship management greatly enhance the success of entrepreneurial initiatives. In addition, teaching and research efforts that pertain to new product development, innovation, and adoption of technology by businesses and consumers are often housed within marketing departments.

A decade ago, Teach and Miles (1997), motivated by work with the American Marketing Association's Marketing and Entrepreneurship Special Interest Group and the University of Illinois at Chicago's (UIC) high profile Research Symposium on Marketing and Entrepreneurship, conducted an exploratory study of academic career opportunities for marketing doctoral students that pursue entrepreneurship as their major teaching and research focus. They confirmed what was then considered "common knowledge" – that entrepreneurship education at that time was dominated by management departments, with entrepreneurship being typically taught in conjunction with strategic management/business policy courses as part of a management department faculty members' teaching load. Surprisingly, while Teach and Miles (1997: 25) found that entrepreneurship classes were taught by marketing faculty in "only 26% of the responding institutions," entrepreneurship as a research focus tended to be considered a reasonable choice for a dissertation topic by Marketing doctoral advisors.

Vesper and Gartner (1997) published their findings from a survey of 311 business schools from around the world and found that the "courses" offered was the dominate criteria for the reputation of a program. Supporting Teach and Miles' findings about the dominance of entrepreneurship management, Vesper and Gartner (1997) found that few schools offered courses in entrepreneurial marketing (EM) or marketing/entrepreneurship interface. In fact, only thirteen schools at the undergraduate level offered a course in "venture marketing" and only twelve at the graduate level (with five schools planning to offer a course in EM at some time in the future) placing EM courses in the same category as "venture finance," "small business management," and "entrepreneurship for non-business majors."

The lack of formal courses in EM may be a result of marketing's late start into entrepreneurship education. In 1982, when the University of Illinois at Chicago offered the first formal entrepreneurship course in a marketing department, at least 315 schools already offered entrepreneurship and/or small business courses (Katz 2003). This lack of EM courses translates into fewer opportunities for academics interested in EM. In fact, in a recent review of academic job postings through the AMA listserv (ELMAR), the entrepreneurship division of the Academy of Management's listserv and jobs posted on the Chronicle of Higher Education website suggest that few positions call for academics with an interest in EM. For example, in a recent empirical study of the market for marketing academics Basil and Basil (2006) do not even report EM as a category of demand using data from both ELMAR and SMA Placement Services.

A replication of the original Teach and Miles (1997) study was conceived after efforts by marketing scholars to better integrate entrepreneurship into the marketing discipline. These formal efforts include (1) the creation of an academic journal devoted to the EM, the *Journal of Research in Marketing and Entrepreneurship*, (2) twenty years of successful UIC Marketing and Entrepreneurship Research Symposia in the U.S. and globally, (3) the creation and development of the American Marketing Association's Special Interest Group in Marketing and Entrepreneurship, (4) special issues of marketing journals, such as the *Journal of Marketing Theory and Practice,* devoted to EM, and (5) textbooks focused topic of marketing and entrepreneurship (see for example Bjerke & Hultman 2002; Buskirk and Lavik 2003).

PURPOSE

The "question of the acceptability of entrepreneurship as a legitimate research and teaching area for junior marketing scholars to pursue … in the pursuit of tenure and promotion" is still as valid today as when Teach and Miles (1997: 23) first considered these issues. The purpose of the present study is to update the original study after a decade of efforts to legitimize entrepreneurship within the marketing discipline and to see if any shifts have occurred over time in terms of the following research questions:

1. Would marketing doctoral students be well served to develop a teaching and research interest in entrepreneurship?

2. Is entrepreneurship as a marketing topic better accepted by research-oriented schools or teaching-oriented schools?

3. Can marketing academics succeed with a teaching and/or research interest in entrepreneurship?

4. What department(s) houses the entrepreneurship classes?

METHODOLOGY

A questionnaire was designed to address the issues that Teach and Miles (1997) examined to be delivered on-line to ease the difficulties of return and keying the data. The instrument contained 24 questions, some of which had sub-parts and required between five and ten minutes to complete. The authors utilized the 2005 edition of Prentice-Hall's, *Directory of Marketing Faculty* to develop a list of the population of department heads/chairs of marketing departments in U.S. colleges and universities. The authors identified 580 applicable E-mail addresses, of which 512 were valid at the time of the survey. From this population of 512 department heads and chairs, 94 returned completed or partially completed questionnaires resulting in a response rate of 18.35%. The items are illustrated in Appendix 1.

FINDINGS

The Univariate Analysis

One of the questions in the instrument asked respondents to classify the mission of their business schools according to the four AACSB designations, which are identified in Table 1. These four categories were collapsed into two categories, *teaching-oriented* schools (resulting in 63 observations) or *research-oriented* schools (resulting in 25 observations). Six respondents did not respond to this classification question. The first step in exploring the marketing discipline's perceptions of the marketing/entrepreneurship interface as an area of research and academic employment for marketing PhD students was to examine if that perception differed among business schools with different missions. Our first proposition was that marketing programs in research-oriented universities would have different perceptions of the interface than would teaching -oriented programs. To test this we crafted ten questions to estimate the perceptions of the Marketing at the Entrepreneurship Interface and ask the heads of marketing departments to respond to these ten questions using the scale 1: I strongly agree with this statement, to 6: I strongly disagree with this

statement. A six point scale was used in an attempt to force the respondent to decide on the direction of agreement with the question. The null hypothesis was "there would be no differences in these perceptions between the research-oriented and teaching-oriented marketing programs." To test this null hypothesis the two groups were used in a simple analysis of variance to test the differences in the responses of ten questions, dealing with the perceptions of the Interface. Table 2 reports the results of this analysis.

Table 1: AACSB School Typologies

Designation	Number of respondents reporting
1) Undergraduate focused	58
2) MBA/MS focused	5
3) MBA/MS and Research focused	21
4) Focused upon the doctoral program.	4

Table 2: Analysis of variance for research and teaching -oriented programs

	Mean of Teaching-oriented Programs	Standard Error of the mean	Mean of the research-oriented programs	Standard Error of the mean	"p" value of the difference
Q1	2.55 (n=62)[1]	0.152	2.60 (n=25)	0.283	0.863[2]
Q2	4.89 (n=62)	0.132	3.88 (n=25)	0.318	0.001
Q3	2.60 (n- 62)	0.144	2.21 (n=24)	0.199	0.144
Q4	4.73 (n=63)	0.142	4.29 (n-24)	0.321	0.151
Q5	4.37 (n=63)	0.138	3.54 (n=24)	0.340	0.009
Q6	4.65 (n=63)	0.128	3.91 (n=23)	0.332	0.013
Q7	3.83 (n=63)	0.188	3.35 (n=23)	0.285	0.135
Q8	4.63 (n=63)	0.125	3.52 (n=23)	0.294	< 0.0005
Q9	4.52 (n=62)	0.147	4.08 (n=24)	0.288	0.147
Q10	2.33 (n=53)	0.155	2.22 (n=23)	0.259	0.701

I Strongly Agree was given the value 1 and I Strongly Disagree was given the value 6.
Means less than 3 indicated a degree of agreement and a value greater than indicated a degree of disagreement.

[1] Read this cell as: The average for teaching programs for question 1 was 2.55 and there were 62 respondents who answered this question.

[2] Read this cell as: The confidence level regarding the difference in the means on the question, "*I would recommend that the marketing department invite this person for a hiring interview for a tenure-track position."* is 0.863

We found that four of our ten questions showed highly significant differences ("p" values less than 0.015) between teaching oriented schools and research oriented schools. These were questions 2, 5, 6 and 8.

Questions 1 through 3 had the following header: *Assume you discovered a freshly minted PhD, who was well-qualified by your school's standards, whose dissertation was on the topic of marketing at the entrepreneurship interface and he/she wanted to interview for a job opening at your school of business.*

Question 2: *If this person published primarily in the area of marketing at the entrepreneurship interface and had good teaching evaluations, I do not think he or she would be a success at our school of business.* The "p" vale for this question was 0.001

The heads of marketing departments from research-oriented schools had greater doubts about the likelihood of success of the faculty candidate with research interest in marketing at the entrepreneurship interface than did those from the teaching-oriented schools.

Questions 4–10 had the following header: *A PhD student, who knows that you are the head of a marketing department/group and who values your opinion, visits you in your home. He/she is beginning to prepare his/her dissertation proposal. The student is interested in studying how marketing is performed by entrepreneurs and compare it to how marketing is performed by mature, well-established Fortune 1000 firms. In general, this area is referred to as marketing at the entrepreneurship interface.*

Question 5: I would recommend that the student change his/her topic because this area has too few publication alternatives. This question's 'p' value was 0.009.

The heads of marketing departments from research-oriented schools thought that the faculty candidate might have more difficultly in publishing his/her research because the publishing opportunities were limited for entrepreneurial marketing research. Those from teaching-oriented schools did not consider this limitation as critical.

Question 6: *I would recommend that the student change his/her proposed topic because this area of research is not rich enough for a PhD dissertation*. This question's "p" value was <0.013.

Heads of marketing departments from research-oriented schools agreed with the statement more than did heads from teaching-oriented schools. Thus, research-oriented programs' department heads have more doubts about the efficacy of research in marketing at the entrepreneurship interface than do those in teaching environments.

The fourth highly significant question, Question 8: *It is an interesting concept, but I personally do not think it could lead to a successful academic career in marketing* had a "p" value of <0.0005.

Marketing department heads from research-oriented schools agreed with this statement more than heads from teaching-oriented schools. Thus, in the research-oriented schools, there is greater doubt among department heads that research in marketing at the entrepreneurship interface will result in a successful career.

Four of our ten questions that had low levels of signifance ("p" values between 0.135 and 0.151) and should be considered as only exploratory issues were:

> Question 3: *Assume that this person* (the potential job applicant researching at the Interface) *was already an assistant professor with an excellent research record in the area of marketing and entrepreneurship, had excellent teaching evaluations and wanted to interview at your school at the associate professor level. I would strongly recommend this person be interviewed by my "B" school at the associate professor level (assuming you could hire someone at the associate level).* This question's "p" value was 0.144.

It appears that marketing department heads in research-oriented schools would be less reluctant to hire at the associate level (and tenure) a faculty member who has published in the field of marketing at the entrepreneurship interface than are department heads from teaching-oriented schools.

> Question 4: *I would recommend that the student change his or her proposed topic because this topic is the domain of another academic discipline*. This question's "p" value was 0.151.

Department heads from research-oriented schools had fewer doubts about whether marketing at the entrepreneurship interface is in the domain of a business discipline outside of marketing than did heads of marketing departments in teaching-oriented schools.

> Question 7: *I cannot provide much advice to this student because I know of no person with research expertise in marketing at the entrepreneurial interface to act as his/her advisor.* This question's "p" value was 0.135.

Heads of marketing departments from research-oriented schools reported that they agreed more with this statement than did heads from teaching-oriented schools.

> Question 9: *I would recommend that the student change his/her proposed topic because this area is outside the mainstream of current marketing thought*. The question's "p" value was 0.147.

Heads of marketing departments from research-oriented schools agreed with this statement to a greater degree than did heads from teaching-oriented schools.

Two question out of the 10 questions showed little differences between teaching- and research-oriented schools. These questions were:

Question 1: *I would recommend that the marketing department invite this person for a hiring interview for a tenure-track position*. This question's "p" value was 0.863.

It is interesting to note that while the research-oriented schools had real doubts about the likelihood of the candidates' academic success; they were essentially equally willing to invite the candidate for a hiring interview.

Question 10: *I would recommend that the student develop this idea more thoroughly, search and identify the relevant literature and develop a set of hypotheses, then come back to me in order that we could discuss this possibility in more detail.* The "p" vale of this question was 0.701.

It is heartening to realize, that the marketing department heads from research-oriented schools who doubted the veracity of the research topic were as willing to assist this hypothetical person with the research process as those who had fewer doubts about the topic.

THE MULTIVARIATE ANALYSIS

The question that comes to mind is: "Are the differences in these perceptions based upon a multivariate view?" A simple model to test the hypothesis, "there are differences in the perceptions of marketing at the entrepreneurship interface between teaching- and research-oriented programs," using a multivariate procedure, is a discriminant analysis. Discriminant analysis was performed using "list-wise" deletion of cases. This means that if a respondent did not answer every question, all of that person's data were omitted from the analysis. As a result 60 teaching-oriented observations and 22 research-oriented responses were analyzed. Tables 3 and 4 show the results of the discriminant analysis using the ten perception variables in this study. Since this analysis used list-wise deletion, the "p" values are slightly different than those reported in the univariate analysis. The Wilks'Lambda statistic for the discriminant function was significant with a "p" value of 0.001.

The discriminant analysis resulted in a clear distinction between the two types of programs. It is clear from the table that Q8, regarding perceptions of the likelihood of a successful academic career for PhD students interested in marketing at the entrepreneurship interface, had the greatest discriminant ability. Another question about success Q2, this one regarding the respondents' school specifically, was the second most powerful discriminator. This suggests that the greatest difference between research- and teaching-oriented schools is the perceptions of the possibility to succeed as an academic by starting a career with writing a dissertation in the area of marketing at the entrepreneurship interface. Additionally, two questions, Q1 and Q3, suggest that the recommending of a person researching at the interface for an interview can also discriminate between research- and teaching-oriented schools.

Table 3: Standardized Canonical Discriminant Function Coefficients		
Question Number	Coefficient	"p" value
Question 1	0.312	0.998
Question 2	0.540	0.001
Question 3	0.465	0.261
Question 4	0.088	0.070
Question 5	0.258	0.001
Question 6	0.161	0.006
Question 7	-0.036	0.094
Question 8	0.968	<0.0005
Question 9	-0.442	0.053
Question 10	0.065	0.847
The absolute value of the standardized coefficient may be directly compared to one another and they show the relative contribution of each variable in the ability to discriminate between teaching- and research-oriented programs. Thus, question 8 has the greatest discriminant power and question 7 had the least discriminant power.		

Table 4: The Hit and Miss Table for the Discriminate Analysis.				
		Predicted Group Membership		Totals
		Teaching oriented	Research oriented	
Count	Teaching-Oriented	50	10	60
	Research-Oriented	8	14	22
Percentage	Teaching-Oriented	83.3%	16.7%	100%
	Research-Oriented	36.4%	63.6%	100%
78% of the cases were correctly classified				

FACTOR ANALYSIS

Exploratory factor analysis was used in an attempt to uncover the number of underlying dimensions in the data set. In reviewing the ten questions, two had little to do with the perceptions of marketing at the entrepreneurship interface, not to mention the least discriminant power. Question 7, "*I cannot provide much advice to this student because I know of no person with research expertise in marketing at the entrepreneurial interface to act as his/her advisor*," dealt with the personal knowledge of the department head regarding people qualified to advise the hypothetical PhD student in research about marketing at the entrepreneurship interface. Question 10, "*I would recommend*

that the student develop this idea more thoroughly, search and identify the relevant literature and develop a set of hypotheses, and then come back to me in order that we could discuss this possibility in more detail," dealt with a very general advice commonly given to all PhD students in the proposal stage of their research.

The remaining eight questions were included in the exploratory factor analysis and 84 respondents completed all of these questions. The Kaiser-Meyer-Olkin measure of sampling adequacy was 0.849. The closer this value is to 1.0, the better the data are for this procedure. Values as low as 0.60 are considered barely adequate, but measures above 0.80 are considered excellent candidates for factor analysis. Bartlett's tests of Sphericity was significant with a "p" value less than 0.0005. Maximum likelihood was used as the factor extraction methodology. This procedure resulted in two factors being extracted. Table 5 shows the ordered explained variance of the two factors.

Table 5: Factor components and explained variance

	Initial Eigenvalues		
Factor	Total	% of variance Explained	Cumulative % of variance explained
1	4.404	55.057	55.057
2	1.175	14.192	69.749
3	0.769		

Two factors explain almost 70 percent of the variance in the data set. We used the Oblique-rotation methodology, which allows the rotated factors to be correlated. Often factors with orthogonal characteristics are very difficult to comprehend as most observable concepts are in fact correlated. The rotated component matrix is shown in Table 6.

Factor one could be considered as the "Research Legitimacy" factor and factor two could be considered the "Employability" factor. The correlation between Factors 1and 2 was -0.521. Thus, the concepts of the "research legitimacy" of this topic and the "employability" of the hypothetical PhD student conducting research at the Marketing and Entrepreneurship interface are related. The problem for researchers in this field is obvious. This research topic is a hindrance to employment in research-oriented universities.

Cronbach's Alpha for the first factor was 0.8951, a very high value, and, for Factor 2, it was 0.618, which is low but acceptable for exploratory work.

Table 6: The rotated Factor Matrix and their loadings[1]		
Statements	Factor 1	Factor 2
I do not think that Entrepreneurship at the Marketing Interface (M@tEI) will lead to a successful career in marketing	1.008	
M@tEI is outside the mainstream of current Marketing Thought	0.792	
M@tEI is not rich enough for a PhD dissertation	0.777	
M@tEI has too few publication alternatives	0.774	
Entrepreneurship is in the domain of another discipline	0.514	
I do not think that this person would succeed in my B school	0479	
I would strongly recommend this person be interviewed by my B school at the Associate Professor level.		0.745
I would recommend that the Marketing Department invite this person to campus		0554
[1] Factor loadings with an absolute value of below 0.400 were omitted from the table as this should make the table easier to comprehend		

CHANGES IN PERCEPTIONS OVER TIME

Table 7 offers a comparison between the results of the Teach and Miles (1997) study and the present study and provides a glimpse at how perceptions pertaining to EM might have changed over time. As illustrated, entrepreneurship has not been embraced completely as a legitimate area within the marketing discipline. This is true even after tremendous efforts on the part of a core group of marketing scholars whose life work is in this area.

DISCUSSION

Heads of marketing departments at teaching-oriented schools seem to have less concern about students and junior faculty researching in the area of marketing at the entrepreneurship interface than do their peers at research-oriented schools. This may be due to having lower requirements in terms of numbers and quality of journal publications and lower hurdles to be considered academically qualified by AACSB at teaching-oriented business schools. Some progress has been made in entrepreneurship courses being offered by marketing departments, from the first offering in 1982, to about a quarter of responses in the 1997 study, up to a third in the current study; however, room is available for more progress. Examination of recent position announcements in marketing and management suggests that the best opportunity for scholars interested in the interface lies in the areas of technology and product development. The higher frequency of innovation

evaluation and technology transfer courses in the Vesper & Gartner (1997) study suggest that that has been an area of opportunity for some time even.

Table 7: Comparison of Studies		
Item	Teach & Miles (1997)	Present Study
Category (mission) of College of Business		
Teaching-Oriented	65%	72%
Research-Oriented	35%	28%
Departments offering entrepreneurship courses		
Management	81%	65%
Marketing	26%	34%
Ability for faculty with an interest in entrepreneurship to succeed in marketing	80%	?
Recommend entrepreneurship as a dissertation topic for marketing doctoral students	60%	?
The above questions were rephrased in the reversed fashion and the respondents answered on a 1 to 6 scale; with 1 indicated Strongly Agree and 6 indicated Strongly Disagree.		
	Agreed (%)	Disagreed (%)
I personally do not think it (a dissertation in Marketing at the Entrepreneurship Interface) could lead to a successful academic career in Marketing. (Q8)	23	77
Marketing at the Entrepreneurship Interface is outside the mainstream of current marketing thought. (Q9)	33	67
Marketing at the Entrepreneurship is the domain of another academic discipline. (Q4)	30	70
Marketing at the Entrepreneurship Interface has too few publication alternatives. (Q5)	52	48
Marketing at the Entrepreneurship Interface is not rich enough for a PhD dissertation. (Q6)	30	70
In the last 5 questions there were substantial differences between the responses of those from teaching B Schools as opposed to research-oriented B Schools.		

CONCLUSIONS

The present study has many limitations including a low response rate and potentially confusing questions that limit its generalizability. However, a perception emerged that even now entrepreneurship has yet to be fully embraced by marketing as have areas such as channels

management, consumer behavior, or marketing research. Our position is that many of the core issues of marketing such as value creation, satisfaction, and exchanges are facilitated when a firm acts more entrepreneurially. We hope that this paper contributes to this debate.

Historically, entrepreneurship courses have been lacking in marketing content. Current scholars of the entrepreneurship/marketing interface may need to put in more effort into developing courses, which should increase opportunities for doctoral students interested in both marketing and entrepreneurship. Additionally, more effort to legitimize the publication outlets for research at the interface should give young scholars in the area a better chance at landing an interview, and maybe even a position, at research-oriented schools.

REFERENCES

Basil, M.D. & Basil, D.Z. (2006). The marketing market: A study of PhD supply, demand, hiring institutions, and job candidates, *Journal of Business Research,* 59, 516-523.

Bjerke, B. & Hultman, C.M. (2002). *Entrepreneurial Marketing: The growth of small firms in the new economic era,* Cheltenham, UK: Edward Elgar.

Buskirk, B. & Lavik, M. (2004). *Entrepreneurial Marketing: Real stories and survival strategies,* Mason, OH: Thomson South-Western.

Finkle, T.A. & Deeds, D. (2001). Trends in the market for entrepreneurship faculty, 1989-1998, *Journal of Business Venturing,* 16, 613-630.

Hills, G.E. & LaForge, R.W. (1992). Research at the marketing interface to advance entrepreneurship theory, *Entrepreneurship Theory & Practice,* 16(3), 33-59.

Hills, G.E., Hultman, C.M. & Miles, M.P. (forthcoming). The evolution and development of entrepreneurial marketing, *Journal of Small Business Management.*

Katz, J.A. (2003). The Chronology and Intellectual Trajectory of American Entrepreneurship Education 1976-1999, *Journal of Business Venturing*, 18, 283-300.

Kuratko, D.L. (2005). The emergence of entrepreneurship education: Development, trends, and challenges, *Entrpreneurship Theory and Practice*, 29(5), 577-597.

Kuratko, D.L. (2006). A Tribute to 50 year of excellence in entrepreneurship and small business, *Journal of Small Business Management*, 44(3), 483-492.

Solomon, G.T., Duffy, S., & Tarabishy, A. (2002). The state of entrepreneurship education in the United States: A nationwide survey and analysis, *International Journal of Entrepreneruship Education,* 1(1), 65-86.

Teach, R., & Miles, M. (1997). The academic career opportunities for doctoral students interested in the marketing/entrepreneurship interface: An exploratory study of U.S. institutions, *Marketing Education Review*, 7(3), 23-28.

Vesper, K.H. & Gartner, W.B. (1997). Measuring Progress in Entrepreneurship Education, *Journal of Business Venturing,* 12, 403-421.

APPENDIX 1.

The questionnaire

A questionnaire was developed to be delivered on-line to ease the difficulties of return and keying the data. The instrument contained 24 questions, some of which had sub-parts and required between 5 and 10 minutes to complete.

A set of 10 questions directly addressed how research in Marketing at the Entrepreneurship Interface was perceived by the heads of marketing department in US universities. These questions were as follows:

The first 3 of the 10 questions had the following precursor statement.

> *For the following 3 questions, please use the following scenario: Assume you discovered a freshly minted PhD, who was well qualified by your school's standards, whose dissertation was on the topic of Marketing at the Entrepreneurship Interface and he/she wanted to interview for a job opening at your school of business.*

The 3 questions were:

1. *I would recommend that the marketing department invite this person for a hiring interview for a tenure-track position.*

2. *If this person published primarily in the area of Marketing at the Entrepreneurship Interface and had good teaching evaluations, I do not think he or she would be a success at our school of business.*

3. *Assume that this person was already an assistant professor with an excellent research record in the area of Marketing and Entrepreneurship, had excellent teaching evaluations and wanted to interview at your school at the Associate Professor level. I would strongly recommend this person be interviewed by my "B" school at the Associate Professor level (assuming you could hire someone at the associate level).*

All three question were to answered on a 6 point scale were 1 was: *I strongly agree with this statement* and 6 was: *I strongly disagree with this statement*

The other 7 questions that dealt with the perception of faculty with research interest in Marketing at the Entrepreneurship interface had the following precursor statement:

> *A PhD student, who knows that you are the head of a marketing department/group and who values your opinion, visits you in your home. He/she is beginning to prepare his/her dissertation proposal. The student is interested in studying how marketing is performed by entrepreneurs and compare it to how marketing is performed by mature, well-established Fortune 1000 firms. In general, this area is referred to as Marketing at the Entrepreneurship Interface.*

Please indicate your level of agreement or disagreement with the following statements.

7 questions were:

4. *I would recommend that the student change his or her proposed topic because this topic is the domain of another academic discipline.*

5. *I would recommend that the student change his/her topic because this area has too few publication alternatives*.

6. *I would recommend that the student change his/he proposed topic because this area of research is not rich enough for a PhD dissertation.*

7. *I cannot provide much advice to this student because I know of no person with research expertise in marketing at the entrepreneurial interface to act as his/her advisor.*

8. *It is an interesting concept, but I personally do not think it could lead to a successful academic career in marketing*.

9. *I would recommend that the student change his/her proposed topic because this area is outside the mainstream of current marketing thought.*

10. *I would recommend that the student develop this idea more thoroughly, search and identify the relevant literature and develop a set of hypotheses, then come back to me in order that we could discuss this possibility in more detail.*

ABOUT THE AUTHORS

Richard Teach is a professor Emeritus at Georgia Institute of Technology in the College of Management. He has been on the Boards of Directors / Advisors of several software firms, a computer game start-up a computer training publishing house, a toy company, and a financial services start-up. He was on the founding-board of the Southeastern Software Association in Atlanta and he was the Executive Director to the Atlanta Technology Executive Roundtable. In 2003 he was an advisor to two Luxemburg-based technology start-ups. He is currently on the Board of OMICRON, an educational organization for large firm CIOs and he is on the Board of Advisors for a sports oriented start-up firm called Landsurf, Inc. He has presented numerous invited and competitive papers and lectures throughout the US, and in 19 other countries. He has held eight International Visiting Professorships in France, he was a Visiting Research Scholar in England and taught for three summers in Metz, France at Georgia Tech Lorraine, the European platform for Georgia Institute of Technology. In October, 1997 Professor Teach presented two invited papers on simulation to Interested Faculty, University of Tokyo, in September 1999, he presented an invited paper on university-based technology transfer and university related start-ups and to the Judge Institute of Management, Cambridge University and in October 2001, he presented an invited paper on Entrepreneurship to Faculty, Students and Friends of Monash University, Melbourne, Australia. He holds an adjunct Professorship at the University, of South Australia and he serves as an advisor to the School of Marketing at the University of South Australia, Adelaide AU. Dr. Teach has published about 100 peer-reviewed articles.

Morgan P. Miles is Professor of Marketing, Georgia Southern University. His research interests include the interface between marketing, ethics, and corporate entrepreneurship. He has been a Senior Research Associate for the Judge Institute of Management, Cambridge University, a visiting Professor of Marketing, at the University of Stockholm, a visiting professor of entrepreneurship at the University of Otago, and most recently a visiting professor of entrepreneurship at Massey University in New Zealand.

David J. Hansen is a newly-hired Assistant Professor of Entrepreneurship at the College of Charleston in South Carolina. His primary research interests are entrepreneurship, creativity, and new product development. In particular he is interested in where and how people get new ideas for businesses and products and what they do with those ideas to bring them to life.

PERCEPTIONS OF TENURE REQUIREMENTS AND RESEARCH RECORDS OF ENTREPRENEURSHIP FACULTY EARNING TENURE: 1964-2002

Todd A. Finkle, The University of Akron
Phil Stetz, Stephen F. Austin State University
Michael L. Mallin, The University of Toledo

ABSTRACT

This article explores the research records and perceptions of tenure requirements of 108 faculty members who taught entrepreneurship and earned tenure between 1964 and 2002. The sample was broken down based on the primary focus of the school (research versus teaching) and time frame, 1964-1988 versus 1989-2002. Significant differences were found between faculty members' perception of the College's stated requirements for teaching, research, and service compared to the faculty member's own perceived requirements for teaching, research, and service. Furthermore, research schools were found to have a significantly larger amount of A, B, and C refereed journal publications, books authored, and chapters in books. Finally, the findings indicate that 60% of successful tenure candidates at research schools had a least one publication in a top management journal, compared to only 13% at teaching schools. The findings of this study provide a benchmark for faculty and schools when candidates go up for tenure.

INTRODUCTION

The purpose of this article is to examine the perceptions of tenure requirements (research, teaching, and service) and the research records of faculty in the field of entrepreneurship. We examine this at a critical time for the field because (Aldrich, 1992; Aldrich, 2000; Aldrich & Baker, 1997; Busenitz, West, Shepherd, Nelson, Chandler, & Zacharachis, 2003; Chandler & Lyon, 2001; Wortman, 1987) have all argued that the field of entrepreneurship is still relatively young compared to other academic fields. As a result, the field has been criticized time and time again for its lack of legitimacy and theory within the broader field of management (Busenitz et. al, 2003; Finkle & Deeds, 2001; Katz, 2003; Kuratko, 2003; Meyer 2001).

The field of management has a substantial history; however the field of entrepreneurship is relatively new. For example, the *Journal of Small Business Management* was founded as the first academic journal dedicated to the publication of research on small business and entrepreneurship in 1963. *Entrepreneurship Theory and Practice* was founded in 1975 and the *Journal of Business Venturing* was founded in 1985 (Finkle & Deeds 2001). This liability of newness (Stinchcombe,

1965) has inhibited the field because faculty members have had a hard time justifying the quality of their research in entrepreneurship journals. Thus, more research in the field is needed to further understand this phenomenon.

To address this issue, this study explores three research questions related to faculty who have taught entrepreneurship at the time of their tenure application. These questions are: (1a) Is there a difference between faculty members' perception of the College's stated requirements for teaching, research, and service compared to the faculty member's own perceived requirements for teaching, research, and service? (1b) Are these differences the same for schools with a research focus (i.e., research schools) versus schools focused on teaching (i.e., teaching schools)? (2) What types of research did faculty who taught entrepreneurship have at the time that they applied for tenure? (3) Can faculty who taught entrepreneurship earn tenure by publishing in entrepreneurship journals alone or do they have to publish in a top management journal?

This is a groundbreaking study for the field of entrepreneurship because sparse research exists on the requirements for faculty who teach entrepreneurship at the time that they go up for tenure. The information in this study will enable junior faculty members to benchmark their records against other faculty that have earned tenure at similar universities. The findings will also assist administrators in their tenure decisions by enabling them to compare the research records of similar successful tenure candidates throughout the U.S. To fully understand the scope of this study, a brief explanation of tenure is warranted.

BACKGROUND

Tenure

According to the 1940 *Statement of Principles on Academic Freedom and Tenure*, "Tenure is a means to certain ends; specifically: (1) freedom of teaching and research and of external activities, and (2) a sufficient degree of economic security to make the profession attractive to men and women of ability." While tenure had its origins in this statement, more recently it has come to mean a long-term academic and financial commitment by a university to an individual, providing faculty with unusually secure positions tantamount to life contracts (Beitzell v. Jeffrey, 1981: 875). In order to achieve tenure in the United States, a candidate must prove their value to the university during a probationary period, generally not to exceed six years, with a seventh year representing a terminal appointment or the initiation of tenure. Tenure is achieved when a group of tenured professors and administrators approve a candidate's record on three stated dimensions: scholarship, teaching, and service.

Tenure provides the university with individuals who have "proven themselves" in the realms of research, teaching, and service, with the expectation of approximately the same quality (if not the amount) of output post tenure. The university's decision to tenure someone is akin to a make or buy decision in that the tenured faculty member remains a permanent asset to the institution. This lays

the foundation for the importance of studying the research records of faculty who teach entrepreneurship at the time when they go up for tenure.

Research and Tenure Decisions

A few studies have focused on the relationship between tenure and research in a variety of fields. For example, Cargile & Bublitz (1986) found that research was the most important factor in determining tenure and promotion decisions in the field of Accounting. The work of Park & Gordon (1996) confirms this emphasis on research. They examined tenure decisions in the field of Strategic Management and found a positive significant relationship between the number of publications and confirmatory tenure decisions. Furthermore, Rosenfeld & Jones (1987) found a positive relationship between the number of publications and academic rank six years after they earned their doctorate in the field of Psychology.

Others have investigated the linkage between publication success and academic achievement. For example, Federland & Counts (1982) found that most faculty were concerned with the evaluation process for tenure and promotion where so much emphasis was placed on research. Thus, to help better understand these factors involved in tenure decisions, Mesak & Jauch (1991) developed a model for tenure-track faculty based on teaching, research, and service related to performance evaluation (e.g., merit pay, tenure and promotion decisions). Despite these previous studies, little or no extant research exists on faculty members' perceptions of tenure requirements and research records of faculty who teach entrepreneurship at the time of their tenure application. The following describes the methodology used to answer our research questions.

METHOD

Sample

In order to answer our research questions we obtained a list of all members of the Academy of Management's Entrepreneurship Division and the United States Association for Small Business and Entrepreneurship (USASBE) databases during the summer of 2002. This initial list accounted for 1100 faculty members. Approximately 700 members were dropped from the list because they were identified as either faculty who did not teach entrepreneurship, international faculty that never went up for tenure at a U.S. school, faculty that never went up for tenure or were non-tenure track faculty. A survey questionnaire was developed and pre-tested with 10 senior faculty members who teach primarily in the field of entrepreneurship and had been through the tenure process. A number of revisions were made to the original survey based on comments and suggestions from the pre-test. The survey was then sent to all members of the reduced sampling frame via e-mail. The final number of useable responses received from entrepreneurship professors who had earned tenure from a U.S. college or university was 108 (27% response rate). Nine faculty members indicated that they

were denied tenure. Twelve of the 108 successful tenure candidates stated that they did not go up for tenure at their first school, but their second.

To investigate the possibility of non-response bias we used the methodology of Armstrong & Overton (1977) to test for differences among the variables between early and late responders. To do this, we used a median split to divide the sample into observations received during the first 22 days of the study (early responders) and thereafter (late responders). An analysis of variance among the variables in our study, showed no differences with a significance level below ($p = .156$). Given these findings, we determined that bias due to non-response did not affect our results.

A breakdown of the demographic characteristics of these 108 respondents is illustrated in Table 1. In order to understand the differences between faculty, the observations were categorized by the research focus of the school and the year in which tenure was granted. To do this, the entire sample was divided into two groups: "52 faculty from research schools" and "56 faculty from teaching schools". Research schools are those schools that had a doctoral program in business as reported in *The Gourman Report* (1997). While essentially subjective, *The Gourman Report* rankings are based on multiple sources of data including 'qualifications and professional productivity of the faculty, quality of instruction, faculty research, curriculum, placement of graduates and library resources' (Gourman, 1993: 15). While we do not use rankings in our study, we code doctoral versus non-doctoral institutions. *The Gourman Report* rankings of graduate programs has been used as the basis for graduate school rankings in 38 other studies, which have appeared in journals such as *The Academy of Management Journal*, *The Journal of Finance*, and *Organization Science* (Science Citation Index, 1999).

The sample was further broken down by time period in which the faculty member was tenured. This was done in order to understand more recent trends in tenure decisions for faculty who teach entrepreneurship. Thirty-five observations were analyzed during the era of 1964–1988 and 73 during 1989-2002. This breakpoint, although arbitrary, seemed logical based on the distribution of tenured faculty by year (see Figure 1).

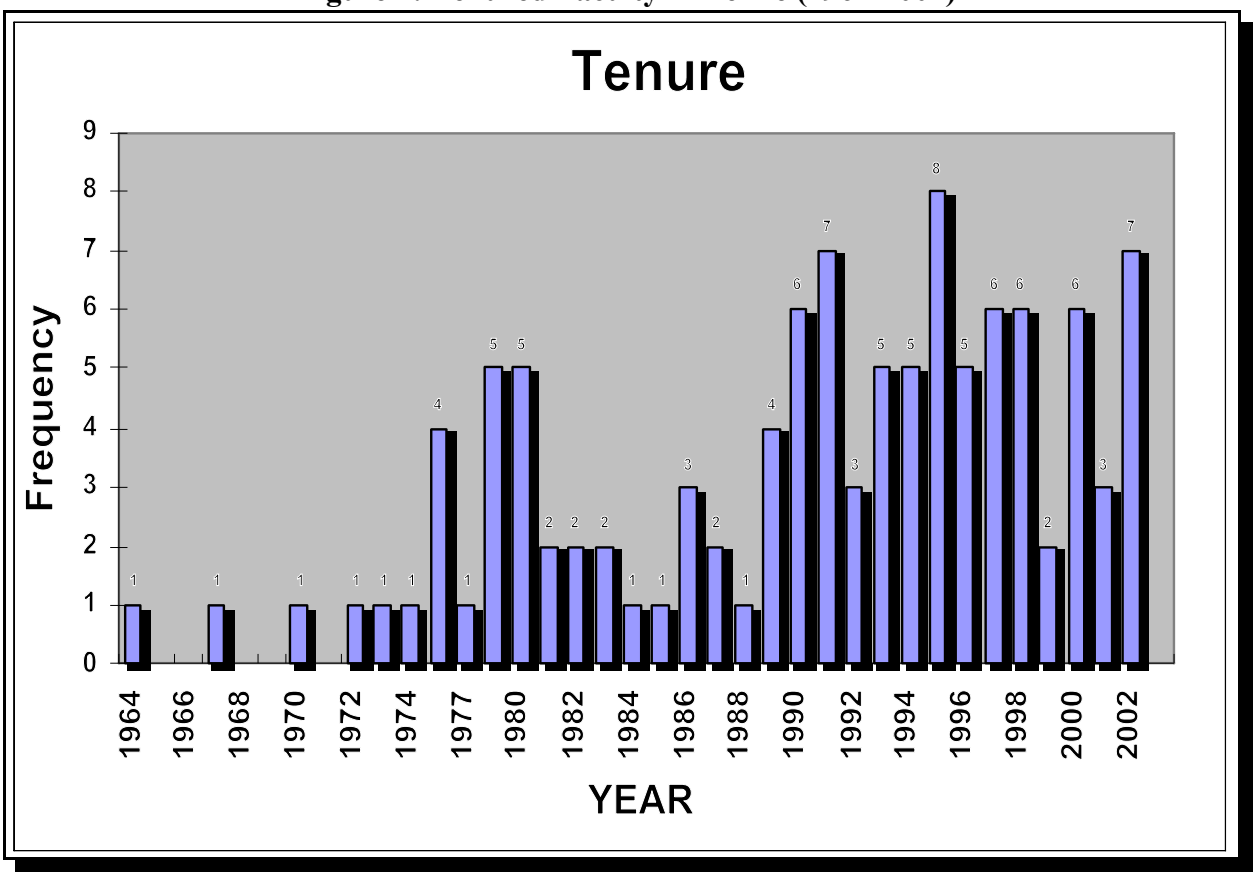
Survey Instrument

A copy of the questions used in the survey can be seen in the Appendix. The survey consisted of questions measuring respondents' backgrounds, perceptions related to expectations of research, teaching, and service in order to earn tenure. The survey also includes questions on research, grants, teaching, and demographics. The respondent demographics are outlined in Table 1 (age, businesses started, percentage of entrepreneurship classes taught, gender, and race).

Instrument validity was addressed through question 14 of the survey. The results (Table 3) suggest that 41% of the respondents from the time frame 1989-2002 (the primary focus of the study) indicated that entrepreneurship was their primary teaching area. To validate this notion, we examined previous research by Finkle & Deeds (2001) and Finkle (2005), which found, on average, the percentage of entrepreneurship positions that were advertised from 1989 through 2002 was

41.7%. We define primary teaching area as the largest percentage of classes that an applicant taught in an area during an academic year. For example, an applicant who teaches three entrepreneurship classes and one policy class during the year would be classified as teaching entrepreneurship as their primary area.

Figure 1: Tenured Faculty Timeline (1964-2002)



To establish the type of school (teaching or research), whether tenure was granted, and the timeframe, several background questions were assessed. If the respondent received tenure, the name of the school was matched up to those appearing in *The Gourman Report* (1997). Schools with or without doctoral programs in business were dummy coded as either 1 or 0 respectively. The survey responses were based on the first time a faculty member earned tenure. The year in which tenure was granted was used to split the sample into the eras 1964-1988 and 1989-2002. To determine the applicant's primary area of teaching at the time of tenure application, we asked the faculty member

to indicate his/her primary teaching area by checking one or more of the teaching area options provided (see question 15).

Table 1: Characteristics of Entrepreneurship Faculty at the Time of Tenure (1964-2002)

	All Schools (N=108)	Research Schools (N=52)	Teaching Schools (N=56)
Current Age (yrs)			
25-29	2	1	1
30-34	13	10	3
35-39	22	12	10
40-44	26	10	16
45-49	24	7	17
50-54	3	1	2
55-59	4	1	3
60-64	4	3	1
Not Specified/Other	10	7	3
Started a Business	54	25	29
Average # of Businesses Started	1.23	1.24	1.23
Average % of Teaching Load is Entrepreneurship Courses	47.1	46.7	47.4
Sex			
Male	84	29	55
Female	24	16	8
Race			
African American	2	0	2
Asian	4	1	3
Caucasian	84	41	43
Hispanic	1	1	0
Not Specified/Other	18	9	12

We answered two questions to address our first research question, "Is there a difference between the faculty members' perceptions of tenure requirements versus the faculty members' perceptions of the college's tenure requirements?" and "Are these differences the same for schools with a research focus (i.e., research schools) versus schools focused on teaching (i.e., teaching

schools)?" The first question asked what are faculty members' perception of the College's stated tenure requirements for teaching, research, and service (see question 7). Question 8 asked the faculty member to indicate his/her *own perceptions* of this same breakdown. The responses were then coded as interval data measures (e.g., 20%, 40%, 50%, etc.) so that perceptual differences between faculty and administrator requirements could be compared.

To answer research question 2, "What types of research did faculty who taught entrepreneurship have at the time that they applied for tenure? We asked a series of questions relative to research, books, and grant writing activity (see questions 10-13). The quantity of refereed journal publications, books authored, books edited, book chapters written, professional monographs, national/international proceedings, and grants were all measured and coded as metric data (1, 5, 10, etc.). The quantity of refereed journal publications was further broken down by level (A, B, C, etc.) as perceived by the respondent. If the respondent was unable to rate a journal publication, then it was coded as "no level reported". To fully capture the value of grant writing activity, it was also measured and reported in dollars and length (in years). Results of all these research activity variables were reported and compared relative to faculty members' classification of research versus teaching school.

Research question 3 asked, "Can faculty who taught entrepreneurship earn tenure by publishing in entrepreneurship journals alone or do they have to publish in a top management journal?" To answer this question we defined top management journals according to Fried's (2003) study. Fried (2003) updated MacMillan's (1993) study through a three-stage process of leading entrepreneurship researchers. This approach, using experts, has been found to be consistent with alternative, more quantitative approaches (MacMillan, 1993). Fried's article developed a system, which classified journals into four categories: Outstanding, Significant, Appropriate, and Not Appropriate. In our study we define the top ranked management journals as the ones in the outstanding category, excluding the *Journal of Business Venturing* because our research question examines management journals. For Fried's list see Table 2. The top management journals (classified as A-level publications) are *Academy of Management Review, Academy of Management Journal, Strategic Management Journal, Administrative Science Quarterly, Organization Science, and Management Science*. We excluded all entrepreneurship journals in looking at this because we wanted to determine if it was possible to earn tenure without publishing in a top management journal.

We obtained the research of the tenure candidates through questions 10-13 of the survey. Candidates indicated the number of each publication (by name) that they had at the time they went up for tenure. These results were reported and compared (via one-way ANOVA) for faculty classified as research versus teaching schools.

Table 2: Fried's (2003) Ratings of Journals Which Publish Entrepreneurship Research	
Journal	**Mean Score out of 4.0**
OUTSTANDING	
Academy of Management Review (AMR)	3.87
Academy of Management Journal (AMJ)	3.83
Journal of Business Venturing (JBV)	3.77
Strategic Management Journal (SMJ)	3.76
Administrative Science Quarterly (ASQ)	3.60
Organization Science (OS)	3.40
Management Science (MS)	3.33
SIGNIFICANT	
Entrepreneurship Theory & Practice (ET&P)	3.17
American Journal of Sociology (AJS)	3.07
Small Business Economics (SBE)	3.07
Journal of Management (JOM)	2.97
Harvard Business Review (HBR)	2.90
Research Policy (RP)	2.84
California Management Review (CMR)	2.73
Sloan Management Review (SMR)	2.70
Journal of Management Studies (JMS)	2.62
Academy of Management Executive (AME)	2.59
APPROPRIATE	
Entrepreneurship and Regional Development (ERD)	2.62
Journal of Small Business Management (JSBM)	2.61
Journal of Private Equity (JPE)	2.50
Venture Capital (VC)	2.48
Journal of Small Business Finance (JSBF)	2.44
Regional Studies (RS)	2.38
Journal of High Technology Management Research (HTMR)	2.37
International Small Business Journal (ISBJ)	2.33

RESULTS AND DISCUSSION

Analysis Techniques

In order to answer our first set of research questions, the mean percentages of teaching, research, and service for faculty were compared using a paired-sample t-test. This was done for both faculty members in research and teaching schools. This test was chosen since the mean value for each measure was provided by the same faculty member respondent (Howell, 2002). The t-value for each pair-wise comparison was compared to the t-statistic (2-tailed) to determine if the difference was significant at the level of $p < .05$. The analysis was performed for faculty receiving tenure between 1964-1988 and 1989-2002. To determine if the perception of the college's stated tenure requirements (percentage) differ based on the school's research focus, a one-way ANOVA was performed comparing the mean percentages for teaching, research, and service by school group (research schools versus teaching schools). The *F*-values were compared to the *F*-statistic and significant differences were noted at the level of $p < .05$.

To answer the second research question, we analyzed the research that a faculty member had at the time of his/her tenure application. This analysis was performed for both faculty at research schools and teaching schools. Types of research activities identified were: quantity of refereed journal publications (broken down by A-level, B-level, C-level, and no level reported); quantity of books authored, edited, and chapters written; quantity of professional monographs; quantity of national/international proceedings; quantity, dollar value, and years of grant support. Mean values were reported and significant differences were noted between the research and teaching schools for each of the research activities. We also compared the average number of publications by tenure applicant for each of 18 potential outlets for entrepreneurship research. For each of the two-time era, differences between the mean values for faculty of research schools and teaching schools were compared using an independent sample t-test. This procedure was appropriate since each of the observations were distinct and separate from each other (Howell, 2002). The *t*-value was compared to the *t*-statistic (2-tailed) to determine if the difference was significant at the level of $p < .05$.

Characteristics of Entrepreneurship Faculty

Table 1 shows the characteristics of all 108 tenured Entrepreneurship faculty members used in the study. The breakdown by school classification was 48% (52) research schools and 52% (56) teaching schools. The majority of faculty received tenure between the ages of 35-49 (67% of the entire sample). Fifty-six percent (56%) of research schools' faculty and 77% of teaching schools' faculty fell into this age range. Half (50%) of all faculty members (54) who earned tenure had started at least one business with slightly more business start-ups by faculty at teaching schools (52% versus 48%). The average percentage of entrepreneurship course teaching load of a tenure candidate at a research school was 46.7% as compared to 47.4% at a teaching school.

Demographically, the sample was 78% male. Gender breakdown was higher for teaching schools (65% male) than for research schools (35% male). The entire sample was 78% Caucasian, 2% African American, 4% Asian, and 1% Hispanic. Seventeen percent (17%) of the sample did not specify their race.

Figure 1 shows the year in which each faculty member in the study earned tenure. Sixty-eight percent (68%) of the sample earned tenure between 1989 and 2002. Based on the skewed result of the respondents earning tenure within the last 15 years, further analyses within this study provides two views of the results: there were 35 faculty who earned tenure between 1964 and 1988 and there were 73 tenure decisions between 1989 and 2002.

Applicant's Primary Teaching Area at the Time of Tenure Application

Table 3 exhibits the primary teaching area of the tenure candidates. The results are displayed for two time periods (1964-1988 and 1989-2002) and further broken down by academic level (undergraduate and graduate). This analysis provides the basis for determining whether our sample is representative of faculty that taught entrepreneurship at the time of their tenure application. Noteworthy is that a tenure candidate could have multiple primary areas. For example, a professor could teach Business Policy and Entrepreneurship, considering both as their primary area. In fact, during both time periods, the combination of Entrepreneurship and Business Policy primary areas comprised the majority of primary teaching areas (37% during 1964-1988 and 60% during 1989-2002). Most recently (1989-2002), the combination of Entrepreneurship and Business Policy as primary teaching areas among tenure applicants at research schools was 70% at the undergraduate level and 63% at the graduate level. At teaching schools these two primary teaching areas accounted for 54% at the undergraduate level and 52% at the graduate level. Other primary teaching areas and their reported frequencies for the two time periods are illustrated in Table 3. These findings show how much the field has grown. From 1964-1988 only 29% (10) of the sample's primary teaching area was either undergraduate and/or graduate entrepreneurship. By 1989-2002 that number grew to 41% (30).

Based on this analysis we can conclude that Entrepreneurship as a primary teaching area for tenured faculty is a more recent trend (1989-2002). Furthermore, we can be confident that the sample of respondents for this study is representative of faculty that taught entrepreneurship at the time of their tenure application.

Table 3: Applicant's Primary Teaching Area at the Time of Tenure Application						
1964-1988						
Primary Teaching Area	All Schools (n=35) Frequency		Research Schools (n=17) Frequency		Teaching Schools (n=18) Frequency	
	Undergrad	Grad	Undergrad	Grad	Undergrad	Grad
Accounting	1	1	1	1	0	0
Business Policy	7	11	4	6	3	5
E-Business	1	1	1	1	0	0
Entrepreneurship	4	6	2	4	2	2
Finance	0	1	0	0	0	1
Human Resources	3	3	1	2	2	1
International Business	0	0	0	0	0	0
Marketing	6	1	3	0	3	1
M&IS	1	1	1	1	0	0
Operations Management	2	2	1	1	1	1
Organizational Behavior	4	5	1	2	3	3
Psychology/Sociology	0	0	0	0	0	0
Technology & Innovation	1	3	1	3	0	0
Other	5	5	1	1	4	4
1989-2002						
Primary Teaching Area	All Schools (n=73) Frequency		Research Schools (n=35) Frequency		Teaching Schools (n=38) Frequency	
	Undergrad	Grad	Undergrad	Grad	Undergrad	Grad
Accounting	0	0	0	0	0	0
Business Policy	23	17	11	12	12	5
E-Business	0	1	0	1	0	0
Entrepreneurship	13	17	5	10	8	7
Finance	1	0	1	0	0	0
Human Resources	1	3	0	3	1	0
International Business	2	3	1	1	1	2
Marketing	2	0	0	0	2	0
M&IS	1	1	1	1	0	0
Operations Management	2	0	1	0	1	0
Organizational Behavior	5	8	1	4	4	4
Psychology/Sociology	1	0	0	0	1	0
Technology & Innovation	1	2	1	1	0	1
Other	8	6	1	2	7	4

Perceptions of Teaching, Research, and Service

Tables 4a and 4b address the first set of research questions. They show the breakdown of perceived teaching, research, and service requirements for faculty at research schools and teaching schools. First, we compared the college's tenure (teaching, research, and service) requirements (as perceived by the faculty member) to those same requirements as perceived by the faculty member (see Table 4a). For research schools during both time periods, significant differences were detected between what the faculty member perceives as the "colleges stated requirements for tenure" versus what he/she perceives the actual college's requirements. For the time frame 1964-1988 the respective differences between the mean percentages for teaching was 39.6% versus 32.1% ($p <$ .01), for research was 50.4% versus 60.8% ($p < .01$), and for service was 10.9% versus 7.7% ($p <$ .01). More recently, from 1989-2002, the respective differences between the mean percentages for teaching was 37.3% versus 31.6% ($p < .05$), for research was 48.1% versus 57.3% ($p < .01$), and for service was 14.6% versus 10.5% ($p < .01$).

At teaching schools, no significant differences were detected between the perceived college's stated requirements for teaching, research, and service and the faculty member's perceived tenure requirements. Thus, these perceived differences are mainly predominant among faculty at research schools. This result prompts the question as to why this is so. One explanation is that at research schools, the delineation as to what constitutes countable (toward tenure) research may be blurred. For example, unless specifically stated, a book authored/edited may or may not count as tenure research activity. Likewise, a research grant may only count toward research if it results in a journal publication. The college administrators and faculty may perceive both of these examples differently. As for teaching, without a specific list to categorize non-research activities, conducting an "out of load" independent study may be counted toward service requirements while faculty perceives it as a teaching activity.

Next, to confirm that research schools stress the importance of research productivity while teaching schools emphasize teaching effectiveness, we compared the faculty member's perceived college tenure requirements between the two groups (research school faculty versus teaching school faculty – see Table 4b). As expected, faculty perceptions of the college's stated requirements for teaching, research, and service between research and teaching schools show significant differences. Most significant were comparisons during the era of 1989-2002. Here, faculty at teaching schools perceived that the college's teaching requirements were higher (47.8% versus 37.3%, F-value = 13.37, $p < .01$); faculty at research schools perceived that research requirements were higher (48.1% versus 33.0%, F-value = 39.82, $p < .01$); and faculty perceptions of service at teaching schools were higher (19.2% versus 14.6%, F-value = 5.92, $p < .05$).

Table 4a: Comparison of Faculty Perceived College's Stated Tenure Requirements to Faculty Perceived Tenure Requirements

1964-1988						
	All Schools (N=35) Mean (%)		Research Schools (N=17) Mean (%)		Teaching Schools (N=18) Mean (%)	
	College [a]	Faculty [b] (p-val) [c].	College	Faculty (p-val)	College	Faculty (p-val)
Requirements						
Teaching	44.1	40.2 (.16)	39.6	32.1 (.03)**	50.0	51.0 (.82)
Research	40.9	49.4 (.01)**	50.4	60.8 (.02)**	28.2	34.2 (.27)
Service	15.7	10.9 (.03)**	10.9	7.7 (.04)**	21.6	14.8 (.14)
1989-2002						
	All Schools (N=73) Mean (%)		Research Schools (N=35) Mean (%)		Teaching Schools (N=38) Mean (%)	
	College [a]	Faculty [b] (p-val) [c].	College	Faculty (p-val)	College	Faculty (p-val)
Requirements						
Teaching	43.1	40.0 (.03)*	37.3	31.6 (.02)*	47.8	46.9 (.57)
Research	39.8	45.4 (.00)**	48.1	57.3 (.00)**	33.0	35.5 (.15)
Service	17.1	14.6 (.02)*	14.6	10.5 (.00)**	19.2	17.9 (.45)

[a] Faculty member's perception of College stated requirements (%) for teaching, research, and service.
[b] Faculty member's perceived requirements (%) for teaching, research, and service.
[c] Significance of difference between college stated and faculty perceived %.
* $p < .05$ ** $p < .01$

Overall, our findings answer the first set of research questions indicating that faculty members perceive that college administrators under-represent the importance that research plays when applying for tenure. This is especially true for faculty at research institutions during both periods of the study. In all cases, faculty perceived that research requirements were significantly higher than what they perceive the administrators' stated requirements for research. Conversely, respondents felt that college administrators' requirements for teaching and service were higher than the faculty members'. All this confirms that in research schools especially, faculty perceives that they and the administration do not share the same expectations.

Table 4b: Comparison of Faculty Perceived College's Tenure Requirements Between Research Schools and Teaching Schools			
1964-1988			
	Research Schools (N=17) Mean (%)	Teaching Schools (N=18) Mean (%)	Diff. Between Groups [d] F-value (p-value)
Requirements			
Teaching	39.6	50.0	2.53 (.13)
Research	50.4	28.2	13.20 (.00)**
Service	10.9	21.6	6.65 (.02)*
1989-2002			
	Research Schools (N=35) Mean (%)	Teaching Schools (N=38) Mean (%)	Diff. Between Groups [d] F-value (p-value)
Requirements			
Teaching	37.3	47.8	13.37 (.00)**
Research	48.1	33.0	39.82 (.00)**
Service	14.6	19.2	5.92 (.02)*

[d] Significance of difference between Research Schools group and Teaching Schools group.
* $p < .05$ ** $p < .01$

Research Records at Time of Tenure Application

The second research question was answered using the results in Table 5. Table 5 shows the specific types of research that the faculty member had at the time of tenure application. The results were broken down based on the tenure timeframe as well as the school type (research schools versus teaching schools). Furthermore, a comparison was made to determine if differences exist for the specific types of research completed across type of school. During the time period of 1964-1988 a moderately significant positive difference for *national/international proceedings* ($t = 1.83, p < .10$) was noted between research schools and teaching schools. More recently (1989-2002), significant positive differences were noted for *A-level* ($t = 5.17, p < .05$), *B-level* ($t = 2.16, p < .05$), and *C-level* ($t = 2.42, p < .05$), *refereed journal publications, number of books authored* ($t = 2.32, p < .01$), and *number of book chapters written* ($t = 1.94, p < .10$). Specifically, tenure candidates at research schools averaged 3.26 A-level pubs, 3.54 B-level pubs, 1.80 C-level pubs, .43 books authored, and 1.98 book chapters written. This was compared to the output of teaching school tenure candidates (.66 A-level pubs, 1.45 B-level pubs, .21 C-level pubs, .10 books authored, and .98 book chapters written – on average).

Table 5: Research Record of Tenure Candidate at Time Tenure Application				
1964-1988				
Research Type	All Schools (N = 35) Mean	Research Schools (N = 17) Mean	Teaching Schools (N = 18) Mean	t-value (p-value)
Refereed Journal Pubs				
A – Level Pubs	1.69	1.94	1.44	.46 (.65)
B – Level Pubs	2.09	2.06	2.11	-.05 (.96)
C – Level Pubs	1.34	1.29	1.39	-.08 (.94)
No Level Reported	3.63	4.65	2.67	1.19 (.24)
Books Authored	.41	.47	.35	.43 (.67)
Books Edited	.15	.13	.17	-.29 (.78)
Book Chapters	.92	1.18	.68	1.13 (.27)
Prof. Monographs	.74	1.12	.38	1.33 (.19)
Nat'l/Int'l Proceedings	9.27	12.17	6.53	1.83 (.08) *
Grants (quantity)	1.49	1.63	1.35	.55 (.59)
Grants ($000)	85.99	129.19	45.20	1.59 (.12)
Grants (length yrs.)	1.75	1.83	1.67	1.06 (.30)
1989-2002				
Research Type	All Schools (n=73) Mean	Research Schools (n=35) Mean	Teaching Schools (n=38) Mean	t-value (p-value)
Refereed Journal Pubs				
A – Level Pubs	1.90	3.26	.66	5.17 (.00) **
B – Level Pubs	2.45	3.54	1.45	2.16 (.03) **
C – Level Pubs	.97	1.80	.21	2.42 (.02) **
No Level Reported	3.97	3.29	4.61	-1.00 (.32)
Books Authored	.26	.43	.10	2.32 (.02) **
Books Edited	.13	.14	.11	.28 (.78)
Book Chapters	1.46	1.98	.98	1.94 (.06) *
Prof. Monographs	.99	.54	1.42	-1.34 (.19)
Nat'l/Int'l Proceedings	11.04	11.48	10.63	.33 (.75)
Grants (quantity)	2.75	2.34	3.12	-1.00 (.32)
Grants ($000)	150.56	92.64	203.90	-1.29 (.20)
Grants (length yrs.)	1.72	1.59	1.83	-1.50 (.14)

* Difference between Research School and Teaching School mean is significant at $p < .10$

** Difference between Research School and Teaching School mean is significant at $p < .05$

Overall, we found significant positive differences between the number of refereed publications (all levels), books authored, and book chapters between tenure candidates from research schools as compared to those from teaching schools during the time frame 1989-2002. The biggest gap was detected between the average numbers of A-level refereed publications that a candidate had at the time of their tenure application at research schools (3.26) versus .66 at teaching schools.

Average Number of Publications by Tenure Applicant, 1964-1988

Table 6 provides a breakdown by academic journal by the mean number of publications that a candidate had at the time of their tenure application. These results compare candidates by school type (research schools versus teaching schools) and were broken down by time period (1964-1988 and 1989-2002).

During the time period of 1964-1988, the largest number (mean) of publications at research schools were in: *Administrative Science Quarterly* (.43), *Journal of Small Business Management* (.36), *Academy of Management Journal* (.36), *Academy of Management Review* (.21), *Journal of Management* (.21), and the *Journal of Business Venturing* (.21). For the tenure candidates at teaching schools, the largest number (mean) of publications was in: *Journal of Small Business Management* (.62), *Entrepreneurship Theory & Practice* (.38), *Academy of Management Journal* (.31), and *Administrative Science Quarterly* (.23). For the same time period, tenure candidates from research schools had significantly more (than teaching schools) average research publications in the following journals: *Journal of Business Venturing* (.21 versus .00, $p < .05$), *Journal of Management* (.21 versus .00, $p < .001$), *Strategic Management Journal* (.14 versus .00, $p < .01$), *Sloan Management Review* (.07 versus .00, $p < .05$), and *California Management Review* (.07 versus .00, $p < .05$). Tenure candidates from teaching schools had significantly more (than research schools) average research publications in the following journals: *Entrepreneurship Theory & Practice* (.37 versus .07, $p < .05$), *Academy of Management Executive* (.08 versus .00, $p < .05$), and *Small Business Economics* (.08 versus .00, $p < .05$).

Average Number of Publications by Tenure Applicant, 1989-2002

During the time period of 1989-2002, the largest average number of publications at research schools was in: *Entrepreneurship Theory & Practice* (.97), *Journal of Business Venturing* (.88), *Journal of Small Business Management* (.59), and *Strategic Management Journal* (.56). For tenure candidates at teaching schools, the largest average number of publications was in: *Journal of Small Business Management* (.46), *Journal of Business Venturing* (.43), and *Entrepreneurship Theory & Practice* (.40). During this time period, tenure candidates from research schools had significantly more (than teaching schools) average research publications in the following journals: *Strategic Management Journal* (.56 versus .00, $p < .001$), *Academy of Management Journal* (.38 versus .09, $p < .01$), *Administrative Science Quarterly* (.32 versus .09, $p<.001$), *Journal of Management* (.32

versus .06, p<.001), *Academy of Management Executive* (.24 versus .06, $p < .05$), *Management Science* (.09 versus .00, $p < .001$), *Sloan Management Review* (.06 versus .00, $p < .01$), and *Research Policy* (.03 versus .00, $p < .05$). Tenure candidates from teaching schools had significantly more (than research schools) average research publications in *Small Business Economics* (.06 versus .00, $p < .01$) and *Academy of Management Review* (.03 versus .00, $p < .05$).

We then looked at the publishing records of each candidate to determine whether or not they had published an article in one of these journals. Our findings indicate that only 14 out of 35 (40%) of the candidates from research schools (1989-2002) were able to get tenure without publishing in one of these journals. If we included the *Journal of Management*, 31% of the candidates were able to get tenure.

The inclusion of the following journals, which were not on the list, but were ranked as A level publications at their respective universities as stated by the candidates were: *Journal of Applied Psychology (2), Journal of International Business Studies (2),* and *Industrial and Labor Relations Review (1).* This yielded a grand total of only 6 candidates out of 35 (17%) from research schools that did not have a publication in an "A" level refereed journal.

Teaching schools were then examined. Out of 38 tenure candidates, only 5 (13%) published in these top management journals. Three candidates published in the *Academy of Management Journal*, two in *Administrative Science Quarterly* and one in the *Academy of Management Review* (this candidate also had an *Academy of Management Journal* publication). When we included the *Journal of Management* the number increased a mere 3% to 16%.

Upon looking at the data more closely, we found that 9 candidates published in the *Journal of Business Venturing*, 9 candidates published in the *Journal of Small Business Management*, 6 in *Entrepreneurship Theory and Practice*, 3 in *Family Business Review*, and 2 in *Small Business Economics*. Overall, the tenure candidates at teaching schools had an 87% chance of getting tenure even if they did not publish in one of top the management journals (as defined as the journals in the outstanding category in Table 1, excluding *JBV*).

Table 6 confirms these findings. The table shows that tenure candidates from research schools had a significantly higher amount of research in the top management journals (e.g., *Strategic Management Journal, Management Science, Academy of Management Journal, Administrative Science Quarterly, and Academy of Management Review*) than from teaching schools. No significant differences were found between the *Journal of Business Venturing, Entrepreneurship Theory and Practice,* and the *Journal of Small Business Management.*

Table 6: Average Number of Publications by Tenure Applicant				
1964-1988	All schools N=35	Research Schools N=17	Teaching Schools N = 18	
	Mean	Mean	Mean	P value
Journal of Small Business Management	.48	.36	.62	.20
Academy of Management Journal	.33	.36	.31	.66
Administrative Science Quarterly	.33	.43	.23	.28
Entrepreneurship Theory & Practice	.22	.07	.38	.02 *
Academy of Management Review	.15	.21	.08	.11
Journal of Business Venturing	.11	.21	.00	.05 *
Journal of Management	.11	.21	.00	.00 ***
Strategic Management Journal	.07	.14	.00	00 **
Academy of Management Executive	.04	.00	.08	.03 *
Sloan Management Review	.04	.07	.00	.05 *
Small Business Economics	.04	.00	.08	.03 *
California Management Review	.04	.07	.00	.05 *
Management Science	.00	.00	.00	
Organization Science	.00	.00	.00	
Research Policy	.00	.00	.00	
Family Business Review	.00	.00	.00	
1989-2002	All schools N = 73	Research Schools N = 35	Teaching Schools N = 38	
	Mean	Mean	Mean	P value
Entrepreneurship Theory & Practice	.68	.97	.40	.04 *
Journal of Business Venturing	.65	.88	.43	.07
Journal of Small Business Management	.52	.59	.46	.76
Strategic Management Journal	.28	.56	.00	.00 ***
Academy of Management Journal	.23	.38	.09	.00 ***
Administrative Science Quarterly	.20	.32	.09	.00 ***
Journal of Management	.19	.32	.06	.00 ***
Academy of Management Executive	.14	.24	.06	.01 *
Family Business Review	.13	.15	.11	.52
Management Science	.04	.09	.00	.00 ***
Small Business Economics	.03	.00	.06	.00 **
Sloan Management Review	.03	.06	.00	.00 **
Academy of Management Review	.01	.00	.03	.05 *
Research Policy	.01	.03	.00	.04 *
California Management Review	.00	.00	.00	
Organization Science	.00	.00	.00	

* Difference between Research School and Teaching School mean is significant at $p < .05$
** Difference between Research School and Teaching School mean is significant at $p < .01$
*** Difference between Research School and Teaching School mean is significant at $p < .001$

SUMMARY

In conclusion this article makes several contributions. First, we are not aware of another article that has attempted to look at faculty perceptions of tenure requirements in the field of entrepreneurship. Second, we feel that through the results of this study, entrepreneurship faculty members seeking tenure will understand what others have accomplished relative to research productivity. Our second research question asks, "What types of research did faculty who taught entrepreneurship have at the time that they applied for tenure? The answer to this question provides the types and quantity of various research activities that others have accomplished. Furthermore, the quantity and names of specific journal publications are provided. This provides a benchmark for future entrepreneurship faculty members as they pursue tenure.

Third, we address the question, "Can faculty who taught entrepreneurship earn tenure by publishing in entrepreneurship journals alone or do they have to publish in top a management journal? We feel that this is a critical question that needed to be answered and is at the heart of people going up for tenure in the field of entrepreneurship today. Do entrepreneurship scholars need to publish in top management journals to get tenure? How do schools value entrepreneurship research? Can faculty who teach entrepreneurship get tenure through publishing in entrepreneurship journals alone or do they need to focus on other mainstream journals? These are critical issues that people who teach entrepreneurship face.

Overall, the findings indicate the increasing importance of the field of entrepreneurship. Evidence of this can be seen by the significant increase in the number of faculty that has applied for tenure since 1964. Furthermore the findings of this study will serve faculty and schools in their tenure decisions by examining the successful tenure records of faculty that have taught in the field of entrepreneurship. The results of the study are significant as there is currently no research on this subject.

Recommendations to Tenure Candidates

Tenure candidates need to be aware that 83% of our sample from research schools during the time frame 1989-2002 had at least one top A level journal publication. We recommend that all tenure candidates target at least one "A" level publication. Our findings show that 17% of the research school's candidates were able to earn tenure without having an A level journal publication. This may be possible due to the increase in the quality of entrepreneurship journals over time. It may also be possible that there is an increase in the perceived legitimacy of entrepreneurship research. It's also possible that these candidates brought some other added value to a school. Examples of this include: grant money, Associate Director or Director of a Center for Entrepreneurship, some other administrative position, access to critical external resources, active in continuing education seminars, etc.

For tenure candidates at teaching schools the findings of this study suggest that it is sufficient to earn tenure without publishing in the top management journals or any other leading journal. Only 13% of candidates that earned tenure from 1989-2002 had a least one publication in one of these journals. Furthermore, the findings show that teaching schools value entrepreneurship research more than research schools. Despite this finding, we recommend that candidates at teaching schools still target at least one publication in a top A level journal (as ranked by their institution) to enhance their legitimacy and mobility in the future. As a final recommendation, our findings indicate that it would be safe for most tenure candidates to pursue a pure entrepreneurship track at teaching schools. However, we recommend that all candidates have a list of the rankings of all journals in writing by the administration before following this recommendation. Due to the newness of the field, entrepreneurship research may not have the legitimacy at some schools.

Recommendations to Universities and Colleges

Several recommendations can be made to academic institutions. First, universities and colleges need to be clear with tenure candidates that have taught entrepreneurship as to how their research will be evaluated in the tenure decision process. Our results suggest that faculty members' perceptions of tenure requirements differ from their perception of the college's stated requirements. This is especially evident at research schools where our results show that entrepreneurship journals are not valued as much as they are at teaching schools. A second recommendation is that universities and colleges need to be more proactive when interviewing faculty by stating how they view entrepreneurship journals relative to other journals. It should be clearly communicated to the tenure candidate whether he/she needs to publish in other top journals (e.g., management, marketing, etc). In the long run, both the candidate and the university will benefit from this understanding.

Limitations

A few limitations exist in this study. The first limitation stems from the dataset. The most recent tenure decision of the sample was 2002. With more and more schools focusing on the field of entrepreneurship, more recent observations would enhance the study. Second, there is a potential for self-selection bias in the sample. Surveying faculty that teach entrepreneurship about how their institutions value journals could create a self-serving bias. Third, due to the newness of the field, it was difficult to say that we surveyed pure entrepreneurship faculty. Therefore, we emphasized throughout the paper that the sample was faculty who teach entrepreneurship. Finally, since single item measures were used to assess respondents' perceptions, it was difficult to test the reliability of the survey instrument.

As a final note, while this study provides some insightful findings about the research dimensions of tenure candidates that teach entrepreneurship, it must be noted that subjective factors such as department politics may also influence tenure decisions.

Future Research

While there have been many studies on research and tenure decisions in other fields like strategic management (e.g., Park & Gordon, 1996), this research provides the basis for future studies on tenure decisions within the field of entrepreneurship. Studies can be done with other academic fields (e.g., marketing, accounting, finance, etc.) to compare and contrast the differences in the research that tenure candidates had at the time of their tenure application. Another study could do an in-depth case study analysis of the nine faculty that did not earn tenure in this study. Furthermore, future studies could focus on the productivity of faculty after they earn tenure. What happens to their research productivity? Do they go on to become administrators? What roles do these faculty members play at their universities? All are areas of research worthy of pursuit beyond this current study.

REFERENCES

Armstrong, J.S. & T.S. Overton (1977). Estimating Nonresponse Bias in Mail Surveys. *Journal of Marketing Research (JMR),* 14(3), 396-402.

Aldrich, H. (1992). Methods in Our Madness? Trends in Entrepreneurship Research. In D.A. Sexton and J.D. Kasarda (Eds.). *The State of Entrepreneurship Research,* 191-213. Boston, MA: PWS-Kent Publishing Company.

Aldrich, H. (2000). Learning Together: National Differences in Entrepreneurship Research. In D.A. Sexton and J.D. Kasarda (Eds.) *The Blackwell Handbook of Entrepreneurship,* 5-26. Oxford, UK: Blackwell.

Aldrich, H. & T. Baker (1997). Blinded by the Cites? Has There Been Progress in Entrepreneurship Research? In D.L. Sexton' and R.W. Smilor (Eds.) *Entrepreneurship 2000,* 377-401. Chicago, IL: Upstart.

Beitzell v. Jeffrey, 643 F.2nd 870 (1st Cir. 1981).

Brush, C., I. Duhaime, W. Gartner, A. Stewart, J. Katz, M. Hitt, S. Alvarez, G.D. Meyer, & S. Venkataraman (2003). Doctoral Education in the Field of Entrepreneurship. *Journal of Management,* 29(3), 309-331.

Busenitz, L., G. West, D. Sheperd, T. Nelson, G. Chandler & A. Zacharakis (2003). Entrepreneurship Research in Emergence: Past Trends and Future Directions. *Journal of Management,* 29(3), 285-308.

Cargile, B. & B. Bublitz (1986). Factors Contributing to Published Research by Accounting Faculties. *The Accounting Review,* 61(1), 158-178.

Chandler, G. & D. Lyon (2001). Issues of Research Design and Construct Measurement in Entrepreneurship Research: The Past Decade. *Entrepreneurship Theory and Practice,* 25(4), 101-113.

Federland, F. & T. Counts (1982). Professors' Satisfaction with Jobs Related to Academic Ranks. Presented to the *Annual Meeting for the Education of Journalism*.

Finkle, T.A. (2005). A Review of Trends in the Market for Entrepreneurship Faculty from 1989-2004. *Frontiers of Entrepreneurship Research 20005: Proceedings of the Twenty-Fifth Annual Entrepreneurship Research Conference*. Eds. Shaker A. Zahra, et al., Wellesley, MA: AMBCE, 2005.

Finkle, T.A. & D. Deeds (2001). Trends in the Market for Entrepreneurship Faculty during the Period 1989-1998. *Journal of Business Venturing,* 16(6), 613-630.

Fried V. (2003). Defining a Forum for Entrepreneurship Scholars. *Journal of Business Venturing,* 18, 1-11.

Gourman, J. (1993). *The Gourman Report 6th ed.* National Education Standards: Los Angeles, CA.

Gourman, J. (1997). *The Gourman Report 8th ed.* National Education Standards: Los Angeles, CA.

Hair, J.F., R.E. Anderson, R.L. Tatham, & W.C. Black (1998). *Multivariate Data Analysis,* (5th Edition). New Jersey: Prentice Hall, p. 166.

Harrisson, R.T. & C.M. Leach (1996). Discipline Emergence in Entrepreneurship: Accumulative Fragmentalism or Paradigmatic Science? *Entrepreneurship Innovation and Change,* 5(2), 65-83.

Howell, D.C. (2002). *Statistical Methods for Psychology (5th Edition)*. Pacific Grove, CA: Wadsworth Group.

Katz, J. (2003). A Chronology of Intellectual Trajectory of American Entrepreneurship Education 1876-1999. *Journal of Business Venturing*, 18(2), 283-300.

Kuratko, D. (2003). *Entrepreneurship Education: Emerging Trends and Challenges for the 21st Century,* 2003 Coleman Foundation White Paper Series for the U.S. Association of Small Business and Entrepreneurship. Madison, WI: USASBE.

Law and Contemporary Problems. (1990). The 1940 Statement of Principles on Academic Freedom and Tenure. *Law and Contemporary Problems.* 53(3), 3-78.

Mawdsley, R. (1999). Collegiality as a factor in tenure decisions. *Journal of Personnel Evaluation in Education*, 13(2), 167-177.

MacMillan, I. (1991). Delineating a Forum for Entrepreneurship Scholars. *Journal of Business Venturing*, 6, 83-87.

MacMillan, I. (1993). The Emerging Forum for Entrepreneurship Scholars. *Journal of Business Venturing*, 8, 377-381.

Mesak, H.I. & L.R. Jauch (1991). Faculty Performance Evaluation: Model to Improve Personnel Decisions. *Decision Sciences*, 22(5), 1142-57.

Meyer, G.D. (2001). Major Unresolved Issues and Opportunities in Entrepreneurship Education. *2001 Coleman Foundation White Paper Series for the U.S. Association of Small Business and Entrepreneurship*. Madison, WI: USASBE.

Park, S. & M. Gordon (1996). Publication of Records and Tenure Decisions in the Field of Strategic Management. *Strategic Management Journal*, 17, 109-128.

Rosenfeld, R.A. & J.A. Jones (1987). Patterns and Effects of Geographical Mobility for Academic Women and Men. *Journal of Higher Education*, 58, 493-515.

Science Citation Index (1999). The Institute of Scientific Information. Philadelphia, PA

Scott, R.W. & J.W. Meyer (1983). The Organization of Societal Sectors. In JW Meyer and WR Scott, *Organization and Environments: Ritual and Rationality,* 129-153. Beverly Hills, CA: Sage.

Stinchcombe, A.L. (1965). Organizations and Social Structure. In James G. March (ed.), *Handbook of organizations*, 153-193. Chicago: Rand McNally.

Williamson, I.O, & D.M. Cable (2003). Predicting Early Career Research Productivity: The Case of Management Faculty. *Journal of Organizational Behavior*, 24, 25-44.

Wortman, M. (1987). Entrepreneurship: An Integrating Typology and Evaluation of the Empirical Research in the Field. *Journal of Management*, 13(2), 259-279.

APPENDIX

1. Have you ever been on a tenure track position at a university? YES_____ NO _____

   - If NO, you do not need to fill out the survey. Please return and state that you have never been on a tenure track at a university of college—thank you for participating.

Background

2. What school did you receive your Ph.D. from? Year graduated? Major(s) and minor(s)?

3. What was the name of the institution that granted you your first tenure track teaching position?

4. Did you go up for tenure and promotion at that school? If so, what year?

5. Did you receive tenure? YES _____ NO _____

6. If you did not receive tenure at your first institution where did you earn tenure and promotion? What year did you go up for tenure and promotion?

The remainder of the survey is based on the first time you went up for tenure and promotion

7. The first time that you went up for tenure and promotion, what was the College's stated percentage breakdown of teaching, research, and service that was required for tenure (e.g., teaching 45%, research 45%, service 10%).

   teaching ____% research ____% service ____% don't recall ____

8. At the time that you went up for tenure, what was your perception of the College's emphasis on teaching, research, and service in order to receive tenure (e.g., teaching 45%, research 45%, service 10%).

   teaching ____% research ____% service ____% don't recall ____

9. Have you been the principal investigator or co-investigator on a grant(s)? How many grants did you receive before you went up for tenure? What were the dollar values of the grant(s) that you received in the time frame before you went up for tenure? What was the length of time (years) for each grant?

Research & Grants

10. At the time that you went up for tenure and promotion, how many refereed journal publications, books, book chapters, and international/national proceedings did you have?

Refereed Journal Publications _____ Books (Authored) _____ Books (Edited) ____
Professional Monographs _____ Book Chapters _____ Int./Nat Proceedings ____

11. At the time that you went up for tenure and promotion, how many A, B, and/or C level refereed publications did you have (Include books & monographs according to College policy)?

A _____ B _____ C _____ College had no classification system ____

Other (Please specify)_____

12. Please indicate how your institution classified the following journals (A, B, C, N/R-not ranked) at the time you went up for tenure:

Academy of Management Executive ____
Academy of Management Journal ____
Academy of Management Proceedings ____
Administrative Quarterly____
Academy of Management Review____
California Management Review____
Entrepreneurship Theory and Practice____
Family Business Review____
Frontiers of Entrepreneurship Proceedings (Babson) ____
Journal of Business Venturing ____
Journal of Management ____
Journal of Small Business Management ____
Management Science ____
Organizational Science ____
Research Policy____
Sloan Management Review____
Small Business Economics____
Strategic Management Journal____

13. Please indicate the number of publications you received in each of these journals at the time you went up for tenure (leave blank if you received none). Insert the name of other refereed journals not on the list in the other category.

Academy of Management Executive ____
Academy of Management Journal ____
Academy of Management Proceedings ____
Administrative Quarterly____
Academy of Management Review____
California Management Review____
Entrepreneurship Theory and Practice____
Family Business Review____
Frontiers of Entrepreneurship Proceedings (Babson) ____
Journal of Business Venturing ____
Journal of Management ____
Journal of Small Business Management ____
Management Science ____
Organizational Science ____
Research Policy____
Sloan Management Review____
Small Business Economics____
Strategic Management Journal____

Other (Place name of journal, college ranking, and number of pubs):
Name of Journal: _____ College Ranking: ___ # of Pubs ____
Name of Journal: _____ College Ranking: ___ # of Pubs ____
Name of Journal: _____ College Ranking: ___ # of Pubs ____

Name of Journal: _____ College Ranking: ___ # of Pubs ____
Name of Journal: _____ College Ranking: ___ # of Pubs ____
Name of Journal: _____ College Ranking: ___ # of Pubs ____

Teaching

14. At the time that you went up for tenure what percentage of your teaching load was entrepreneurship courses per academic year?

20% ____ 25% ____ 33% ____ 40% ____ 50% ____ 60% ____
66% ____ 75% ____ 80% ____ 100% ____ Other% ____

15. What is was your primary teaching area?

Undergraduate
Accounting ____
Business Policy ____
E-Business ____
Entrepreneurship ____
Finance ____
Human Resource Management ____
International Business ____
Marketing____
MIS____
Operations Management ____
Organizational Behavior____
Psychology ____
Sociology____
Technology & Innovation ____
Other (Specify)____

Graduate
Accounting ____
Business Policy ____
E-Business ____
Entrepreneurship ____
Finance ____
Human Resource Management ___
International Business ____
Marketing____
MIS____
Operations Management ____
Organizational Behavior____
Psychology ____
Sociology____
Technology & Innovation ____
Other (Specify)____

Demographics

16. What institution are you currently teaching at? How long have you been there?

17. Have you ever been an entrepreneur of your own business? If so, how many, what type of business(es) and for how many years?

18. What is your age?

25-29 ___30-34 ___35-39 ___40-44 ___45-49 ___50-54 ___ 55-59 ___ 60-64 ___ 65+ ___

19. What is your race?
African American ___ American Indian ____ Asian ___ Caucasian ___ Hispanic ___Indian ___
Other (Please Specify) _____

20. Male or Female (Circle One)