THE ACADEMIC AND CO-CURRICULAR FACTORS THAT PREDICT FULL-TIME JOB PLACEMENT AND STARTING SALARY UPON GRADUATION FOR COLLEGE OF BUSINESS STUDENTS

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ABSTRACT

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The purpose of this study was to examine the Academic and Co-Curricular factors that predict Full-Time Job Placement and Starting Salary upon graduation for college of business students. The sample consisted of 630 graduating college of business students at a mid-sized, four-year public institution in the Midwestern United States. Data were collected from 2009-2012 utilizing the College of Business Administration Senior Survey (CBASS), which was administered at each graduation ceremony in the years under study. Three research questions guided the analysis.

The first research question examined which Academic and Co-Curricular factors predict Full-Time Job Placement upon graduation. Results of a logistic regression revealed a three-factor predictive model indicating that Degree of Internship Participation, G.P.A., and Area of Specialization were all significant predictors of Full-Time Job Placement. The second research question examined which Academic and Co-Curricular factors predicted Starting Salary. A one-factor predictive model resulted from a forward multiple regression, indicating that only Degree of Internship Participation predicted Starting Salary. Finally, the third research question examined if Internship Participation or Degree of Internship Participation predicted Job Attainment in Area of Specialization. Results of a logistic regression revealed that Degree of Internship Participation positively significantly predicted Job Attainment in Area of Specialization.

Given the increasingly tenuous nature of the job market and an ever-changing global economy, the need to assist students in best positioning themselves for successful initial post-
graduation employment is vital. The results of this study suggest that Academic and Co-Curricular factors, and in particular Degree of Internship Participation, Area of Specialization, and G.P.A., do have the ability to predict more positive employment outcomes for graduates. The leadership guidance provided and subsequent effort students put forth could have a significant impact upon job placement and starting salary. Recommendations are made to assist students in leveraging their academic performance and co-curricular experiences.
DEDICATION

This dissertation is dedicated to my family, without whose support this journey would not have been possible. To my husband, Matt, for your patience and dedication to allowing me to see this educational pursuit through to its completion, I will be eternally grateful. For my son Jack, born in the first semester of this program, our long sleepless nights together made me realize that if I could make it through those first wonderfully-challenging months, I could succeed in the program. To our newest addition, Reis, you gave me another joyful reason to persevere, and propelled my progress forward. The three of you give me infinite reasons to push to greater heights.

Thanks finally to my parents, who instilled in me the value of an education and the importance of lifelong learning. Had you made me turn the lights out reading all of those nights hidden under my covers, I may not be where I am today.
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CHAPTER I. INTRODUCTION

Background of the Problem

In recent years, the average number of students graduating with an undergraduate degree on an annual basis has continued to rise, resulting in an unprecedented quantity of bachelor degree holders in the United States (National Center for Education Statistics, 2010). However, despite this increase of graduates with bachelor’s degrees, full-time employment has proved increasingly difficult to obtain (Eisner, 2010). In 2011, the New York Times reported that only 55.6% of college graduates under the age of 25 were employed in a job requiring a bachelor’s degree or higher (Rampell, 2011). The bleak economic outlook of recent years has exacerbated this situation (Rampell, 2011). The National Association of Colleges and Employers’ (2010) annual survey of graduating seniors indicated that only 38% of the 12,933 surveyed indicated that they had received at least one job offer. The same survey in 2011 reported more dire results, with only 18% of graduating seniors citing having received a minimum of one job offer (National Association of Colleges and Employers, 2011). Compounding the problem is the fact that recent graduates will be competing with unemployed workers with significant experience. In fact, unemployment percentages for those holding a bachelor’s degree or higher reached 4.7% in 2011, a number significantly higher than in recent years (Bureau of Labor Statistics, 2011).

The importance of obtaining an undergraduate degree, however, has perhaps never been as significant. In a report outlining employment projections through the year of 2018, the Bureau of Labor Statistics (2009) estimated that nearly one-half of all new jobs will minimally require a bachelor’s degree. In fact, 14 of the 30 projected fastest-growing occupations will have a bachelor’s degree or higher as the primary source of training for employment requirements (Bureau of Labor Statistics, 2009). Obtaining a bachelor’s degree, then, will continue to provide
access to employment sectors to which those without this level of educational attainment will be denied.

The lack of ability to secure gainful employment can have a myriad of dire consequences for college graduates. From the perspective of individual well-being, securing employment has been tied to realizing one’s self and societal worth (Chengwen & Guiying, 2008). Additionally, there are significant implications for the graduate’s future. Steffy, Shaw, and Noe (1989), for instance, found that one’s first job post-graduation can have a significant impact upon future career status and earning potential. Moreover, research in career mobility suggests that early positions significantly affect one’s career in terms of both level of attainment and timing of sequential promotions many years later (Rosenbaum, 1979). The earnings benefits have also been quantified. In an economic review of the benefits of a college education, Barron and Rouse (2005) found that the average graduate will typically recuperate their investment in their degree within ten years of graduation based upon the predicted increase in wages versus those with a high school diploma. Given these realities, it is imperative to better understand the antecedents for securing full-time employment post-graduation. Doing so could have a significant impact upon the future careers of college graduates facing a dynamic, challenging employment environment.

Rationale

Although research in career development and graduate employment has increased in recent years, there remains a dearth of literature examining academic or co-curricular individual characteristics and behaviors that relate to job attainment (Sagen, Dallam, & Laverty, 1999). Much of the research to date examining factors related to employment focuses upon job search behaviors and inherent individual characteristics such as age, sex, and ethnicity (Harris, Tanner,
& Knouse, 1996; Lim, Rich, & Harris, 2007; Sagen et al., 1999; Saks & Ashforth, 1999). In terms of job search behaviors, studies have examined the type and intensity of such activities to predict attainment of employment (Lim et al., 2007; Sagen et al., 1999; Saks & Ashforth, 1999). Job search behaviors that have been examined include use of career services, methods of contact with potential employers, and vehicles for job applications (Sagen et al., 1999). Other researchers have examined the level of activity focused on the job search as an indication of search intensity (Saks & Ashforth, 1999). While these studies have added to the ability to understand why some graduates render better success rates than others as moderated by job search activities, they have done little to add to the knowledge of how other inherent and self-determined characteristics may be involved.

Some research has focused upon various inherent and academic variables that predict job placement. Harris et al. (1996), for instance, examined the impact of age, gender, and minority status on the employment of college graduates. Similarly, Lim et al. (2008) investigated how individual differences such as ethnicity and type of degree predicted employment outcomes for Malaysian graduates. To the exclusion of type of degree, however, all of the individual differences examined in the aforementioned studies are inherent, unchangeable characteristics.

This focus on inherent characteristics such as race and gender to the detriment of self-determined individual differences is the trend in the existing body of literature on graduate employability. There appears to be a gap in research that examines self-determined individual characteristics that are often scrutinized by prospective employers. In fact, Sagen et al. (1999) indicated that to date, no study had been done to explore the potentially-significant interaction between individual applicant characteristics and job attainment. Although there have been a few studies since this time that have examined individual characteristics that predict job placement,
the body of research is still in its infancy. Because of this, it is imperative to build upon the body of literature to better understand these relationships.

**Purpose of the Study**

The purpose of this study was to examine academic and co-curricular factors that predict full-time job placement and starting salary upon graduation with an undergraduate business degree. The sample for this study focused upon graduating seniors from the College of Business Administration at a four-year, public research institution. Within this study, independent variables included Grade Point Average (G.P.A.), Area of Specialization, Degree of Internship Participation, Use of Career Center, and Participation in College of Business, University, and Community Organizations. The dependent variables were Full-Time Job Placement, Starting Salary, and Job Attainment in Area of Specialization. A secondary data source was utilized to examine the aforementioned variables. Data was collected utilizing the College of Business Administration Senior Survey (CBASS), which was administered to all seniors attending the University graduation ceremonies from 2009-2012. To study the relationship between these variables, logistic and multiple regressions were applied for data analysis.

**Research Questions**

**Research Question 1**

1a. Which Academic and Co-Curricular variables best predict Full-Time Job Placement upon graduation?

1b. Which Academic and Co-Curricular (including Organization Participation) variables predict Full-Time Job Placement upon graduation?

**Research Question 2**

2a. Do Academic and/or Co-Curricular variables significantly predict Starting Salary?
2b. Does Starting Salary significantly differ by Area of Specialization?

**Research Question 3**

3a. Does Internship Participation significantly predict Job Attainment in Area of Specialization?

3b. Does Degree of Internship Participation significantly predict Job Attainment in Area of Specialization?

**Significance of the Study**

As has been previously discussed, a gap exists in the current body of literature examining the academic and co-curricular factors that may predict Full-Time Job Placement upon graduation. An expansion of the research in this area could have a significant impact upon educational leaders and students alike. Higher education administrators increasingly under pressure from budgetary constraints must find ways to attract and retain talented students to bolster tuition revenues (Copeland, 2009). One way of doing so could be to demonstrate superior job placement percentages among graduates. As competition for students increases, job placement rates are increasingly being considered as a sign of institutional quality (McGrath, 2002). Thus, strong job placement results can pay dividends for higher education leaders seeking to create a competitive recruiting advantage.

Moreover, as graduates navigate an increasingly tenuous global economy, it is imperative to understand where to best focus one’s efforts during the undergraduate tenure. If research substantiates that certain efforts and/or activities during the undergraduate experience lead to better positioning for full-time employment upon graduation, students and administrators can devise a strategic plan early in their educational experience to capture these opportunities. Such
strategic investments may pay dividends upon graduation in terms of better employability and starting salary.

From a leadership standpoint, identifying factors that impact Full-Time Job Placement upon graduation can assist administrators in developing programs and resources to more strategically align students’ undergraduate experiences. Administrators can apply the findings to place a higher emphasis on specific academic and co-curricular experiences within one’s undergraduate tenure. The importance of internships, for instance, could propel administrators to align the resources to coordinate a minimum of one internship for every undergraduate student. Similarly, based upon findings related to the positive impact of G.P.A. and co-curricular variables such as participation in student organizations, administrators could design the programs and resources to allow for placement of a greater emphasis on the balance between in and out-of-the-classroom experiences. Therefore, the findings of this study can significantly inform the discourse of students and higher education administrators alike in terms of the areas of focus that are likely to provide the greatest return on both monetary and time investments for both parties.

**Definition of Terms**

- **Academic variables**: variables related to one’s academic performance such as Area of Specialization and G.P.A.
- **Co-Curricular variables**: variables related to one’s experiences outside of the classroom, such as Degree of Internship Participation and Participation in University Organizations.
- **Area of Specialization**: the declared major or area of study.
- **Full-Time Job Placement**: full-time employment at the time of graduation.
- **Degree of Internship Participation**: number of internships that a student participates in during one’s undergraduate tenure.
Internship Participation: participation in a minimum of one internship experience

Job Attainment in Area of Specialization: attainment of full-time employment related to one’s area of study, as defined by the participant.

G.P.A.: grade point average over the course of one’s undergraduate tenure.

Participation in College of Business Organizations: participation in organizations sponsored by the College of Business Administration.

Participation in University Organizations: participation in organizations sponsored by the university, but outside of the College of Business Administration.

Participation in Community Organizations: participation in organizations not affiliated with the College of Business Administration or the university.

Organization Participation: the sum of one’s participation in College of Business, University, and Community Organizations.

Use of Career Center: utilization of career services as a resource to assist in one’s job search.

Delimitations and Limitations

Much of the existing body of literature on job placement focuses on job search behaviors and intrinsic individual characteristics and their impact on one’s ability to attain employment (Harris et al., 1996; Lim et al., 2007; Sagen et al., 1999; Saks & Ashforth, 1999). Because of the breadth of the literature focused in this realm, this study will not examine those independent variables. Additional previous studies have focused upon factors that predict reemployment of those who have previously served in full-time positions (Wanberg, Watt, & Rumsey, 1996). Because of the gap in research that appears to exist in examining those who are seeking their first meaningful employment post-graduation, this study will not focus on the previously-employed
population. Rather, the researcher has chosen to concentrate on self-determined individual characteristics as predictors of full-time employment in order to address an area that has not been thoroughly previously examined; it is hoped that doing so can help to inform academic leaders as to how to assist students to best position themselves for employability upon graduation.

Some aspects of the design of this study limit its generalizability. Foremost in these limitations is the fact that this study utilized a convenience sample at one Midwestern four-year public research institution. The fairly homogenous sample that resulted raises potential generalizability issues to the general population. Additionally, the nature of self-report lends itself to potential validity issues. Because data was collected at one point in time just prior to the graduation ceremony, along the voluntary nature of the study, there is a possibility that the type of student who chooses to attend graduation and consents to completing the survey may differ from the larger population. Although these limitations are fairly common for research focused upon higher education student populations, they are nonetheless important to keep in mind when considering generalizability to groups outside of the scope of the study.

Organizations of the Remaining Chapters

In order to address the research question presented herein, the remaining chapters will be arranged following the introduction of the problem and background information as laid out in Chapter 1. Chapter 2 will provide a review of the current existing body of literature examining job placement and employment issues. Next, Chapter 3 will outline the methodology of the study, including the research design, participants, instrumentation, procedures, and data analysis. Chapter 4 will address the research questions through descriptive and inferential analysis of the data. Finally, Chapter 5 will provide a discussion of the findings, recommendations, and propose areas for further research on the topic.
CHAPTER II. LITERATURE REVIEW

Introduction

Although a significant body of literature exists examining various aspects of careers and employment, research on factors predicting job placement for college graduates is in its relative infancy (Sagen et al., 1999). Historically, much of the research focused on employment has examined aspects of hiring practices, career mobility, and reemployment of general populations after job loss (Rosenbaum, 1979; Wanberg et al., 1996). Early literature has considered variables such as individual differences in employment trends, promotional practices, and vocational training (Rosenbaum, 1979).

In recent years, however, research related to graduate employment has increased as the importance of securing one’s first job post-graduation has become more evident. Significant differences in earnings have been cited. Evidence that college graduates earn substantially more than those without a bachelor’s degree is growing (Bureau of Labor Statistics, 2009; Roksa, 2005; Steffy et al., 1989). In fact, the U.S. Bureau of Labor Statistics (2010) indicates that employees with a college degree earn an average of $1,137 per week, while those with a high school degree average only $626. In addition to increased earning potential, research suggests that early positions significantly impact one’s career both in terms of level of attainment and timing of sequential promotions many years later, as well as having implications for perceptions of societal worth (Chengwen & Guiying, 2008; Rosenbaum, 1979; Steffy et al., 1989). This evidence has paved the way for an increased focus upon research related to graduate employment.

Several studies have focused upon job search efforts as predictors of employment (Chengwen & Guiying, 2008; Sagen et al., 1999; Saks & Ashforth, 1999). Despite this growth, however, multiple researchers have cited the relatively insignificant amount of existing research
that focuses upon academic and co-curricular variables relating to job search success (Sagen et al., 1999; Wanberg et al., 1996). The study presented herein attempts to assist in filling this gap in the literature addressing academic and co-curricular factors predicting graduate employability. The remainder of the chapter will provide an overview of the existing body of research related to graduate career development and employment. First, a summary of general career development literature will be provided in order to set the context for the study. This body of literature examines career development variables not specifically examined in this study such as job search behaviors and factors associated with early career choices. A discussion will then follow on the job placement literature related to the specific independent and dependent variables for the research questions to be examined for this study.

Career Development Literature

Co-Curricular Activities and Career Development

As evidence mounts regarding the importance of one’s initial employment status post-graduation, the body of literature examining various aspects of career development has been growing. Tchibozo (2007), for instance, explored how non-market extra-curricular activities impacted graduates’ transition to the labor market. Non-market extra-curricular activities were defined as sports, the arts, and culturally-related interests; student employment was considered market-related and thus not examined in this study. Data was collected from 119 college graduates utilizing an online survey that associates of various alumni networks were invited to complete.

Results of the linear regression and logistic regression analyses indicated that graduates who participated in extra-curricular activities were more likely to gain higher initial levels of employment, yet took longer to obtain their first job as compared to those without extra-
curricular activity participation. Furthermore, the type of extra-curricular activity had an impact upon the duration of employment contract. More specifically, those taking part in cultural and spiritual activities were more likely to receive open-ended employment contracts, or positions without a specific ending date. Conversely, those who participated in extra-curricular activities at a leadership level, for an extended period of time, or alongside family members were all less likely to receive open-ended contracts.

Tchibozo (2007) also found that extra-curricular activities play a role in impacting occupational status, access to large firms, and unemployment. Those with longer periods of time spent in extra-curricular activities and those participating in student and cultural activities were less likely to obtain managerial positions. Participation in student and social organizations led to an increased likelihood of joining a large firm in one’s first role. Wages were more likely to be lower for those who participated in social sector or student extra-curricular activities than those in athletics. Finally, as it relates to unemployment, graduates who were not in leadership roles in their extra-curricular activities, those in cultural activities, or those who had long-term involvement in their organizations were more likely to experience unemployment prior to obtaining their first role.

In another study examining career exploration, Brooks, Cornelius, Greenfield, and Joseph (1995) investigated the relationship between career-related work and internship experiences and various aspects of student development. Researchers hypothesized that students with either work or internship experience would have higher values on career development variables as compared to those without these experiences. The dependent variables of career development included self-concept crystallization, amount of occupational information, career self-efficacy, career decidedness, vocational commitment, and tendency to foreclose. Career decidedness measured
the extent to which students had solidified a desired career path. Self-concept crystallization measured participants’ certainty of possessing the assets necessary to succeed in a vocation. Occupational information assessed the perceived amount of information participants had on their chosen careers. Career self-efficacy examined the degree of certainty participants held in regards to successfully completing the responsibilities related to the position. Tendency to foreclose and vocational commitment both related to participants’ level of decidedness in terms of chosen vocation. The researchers also posited that differences in the dependent variables may exist depending upon if students had work experience, internship experience, or both. Additionally, Brooks et al. (1995) hypothesized that differences in the dependent variables would exist based upon characteristics of the work experience such as variety and autonomy.

Participants in the study included 165 college seniors of all fields of study who sought help from career services in the 1992-1993 academic year. Results provided very little support for the first hypothesis, revealing that only self-concept crystallization scores significantly differed based upon work and internship experiences. Regression analyses indicated that perceptions of task variety were significantly related to level of occupational information attainment. Higher levels of feedback and opportunities to interact with others led to increased levels of vocational self-efficacy. Finally, only higher levels of feedback received were related to self-concept crystallization (Brooks et al., 1995).

**Job Search Behaviors and Job Placement**

Much of the existing literature specifically related to job placement focuses on how factors such as job search behaviors and inherent individual characteristics serve as predictors (Harris et al., 1996; Sagen et al., 1999; Saks & Ashforth, 1999; Steffy et al., 1989). Harris et al. (1996), for example, studied the impact of age, gender, and minority status upon the employment
success of recent college of business graduates from a southern university. For those who indicated that they had not secured employment but were in the job market during the initial period of data collection, a follow-up survey was sent six months later. The research questions presented included whether differences existed among the variables graduates presented to employers, as well as if use of placement services and internships differed by group. Independent variables considered were age, gender, and ethnicity. Dependent variables utilized were employment, G.P.A., Educational Testing Service scores, use of placement services, and internship experiences.

Results indicated that no significant differences in employment success occurred based upon age, gender, or ethnicity. However, slight mean differences did occur between African Americans and Caucasians related to employment success (69% versus 73%, respectively). Additionally, African Americans were more likely to use career placement services than were Caucasians, while at the same time were less apt to have participated in internships (Harris et al., 1996)

Other studies have placed an emphasis on job search behaviors as predictors of job placement. Saks and Ashforth (1999), for instance, examined the impact of individual differences and job search behaviors such as self-esteem, job search self-efficacy, and perceived control over employment outcomes upon job placement. Job search behavior variables included preparatory or active measures, and intensity of the search. Researchers examined six hypotheses. The first set of hypotheses posited that self-esteem, job search self-efficacy, and perceived control over the search would be positively related to job search behaviors and employment status. The second set of hypotheses examined the relationship between job search behaviors and employment status. This set of hypotheses surmised that preparatory job search
behaviors, active job search behaviors, and job search intensity would be positively related to employment status.

Data was initially collected utilizing a survey sent to seniors one term prior to graduation from majors in business, computer science, and engineering from a large university. A total of 175 respondents who indicated that they had accepted a job offer were identified as “Time 1” participants. After separating respondents in the first round of surveys received according to job status, another round of surveys was sent four months later to those who indicated they had not secured employment in “Time 1”. Of those who responded, an additional 75 indicated that they had obtained employment during that four month timeframe and were thus added to the study as “Time 2” participants (Saks & Ashforth, 1999).

Results of multiple regression analyses revealed that the three aforementioned individual variables (self-esteem, job search self-efficacy, and perceived control over the search) collectively explained significant variance in preparatory job search behavior, active job search behavior, and job search intensity. However, considered individually, results were mixed. Of the three individual variables of self-esteem, job search self-efficacy, and perceived control over the job search, only job search self-efficacy had a significant regression coefficient related to job search behaviors. Results were also mixed for the set of hypotheses examining the relationship between job search behaviors and employment status. Preparatory job search behavior was positively related to employment status at Time 2, but not at Time 1. Active job search behavior and job search intensity were significantly positively related to employment status at Time 1 only. Thus, results of this study would suggest that job search behaviors do predict employment status, but at different points in time (Saks & Ashforth, 1999).
In another study exploring aspects of the job search, Sagen et al. (1999) examined how differences in job search techniques impacted the employment success of recent college graduates. Sagen et al. (1999) explored if job search techniques held universal outcomes for all applicants, or if, perhaps, they could be moderated by individual qualifications or employer behaviors. The sample consisted of 1,012 May graduates who completed surveys from the University of Iowa and indicated that they were entering the job market immediately post-graduation. Independent variables for job search techniques included use of career services, direct contact with employers, written applications, response to want ads, and use of contacts for information sources. Individual characteristics used as independent variables were ACT scores, G.P.A., gender, and field of study. Field of study was delineated by specialized-hard (such as engineering), specialized-soft (such as nursing), broad professional studies (such as business) and general (such as liberal arts) fields. The dependent variable utilized was employment success as defined by job attainment commensurate with a bachelor’s degree experience level within two months of graduation.

Results of logistic regression analysis revealed that, in terms of job search techniques, only direct contact with employers significantly improved employment success rate. Individual variables did significantly interact with job search techniques in many instances. Men, for instance, benefitted both from direct contact with employers and use of multiple search methods, while females had significantly better outcomes due to personal contact for employment information. Timing and intensity of the job search did matter in this study, although largely through the lens of the student’s field of study. For instance, early initiation of the job search mattered, but only for those in specialized-soft and broad professional fields. Thus, results suggest that job search techniques do in fact impact employment outcomes, but are first
moderated by the individual characteristics that the employer sees as relevant (Sagen et al., 1999).

Steffy et al. (1989) explored the antecedents and consequences of job search behaviors. Researchers hypothesized that personal characteristics would impact differences in job search behaviors, and secondly, that these behaviors would consequently result in differential outcomes related to employment. Independent variables to measure the first hypothesis included gender, Type A personality, and academic performance. The second hypothesis utilizing job search behaviors as independent variables measured differential outcomes on screening interviews, on-site interviews, and job offers. Job search behaviors were also hypothesized to be related to greater positional satisfaction and less stress in the job search.

Results of a path analysis from data collected from graduating seniors from the college of business of a large university in the southeastern United States who had secured employment indicated that men had a higher degree of focus and certainty related to the outcomes of the search. Those with a higher G.P.A. had greater certainty as to the success of the search, while those with a Type A personality had a more focused and systematic search. Thus, the hypothesis that individual characteristics would influence job search behaviors was partially supported (Steffy et al., 1989).

However, job search behaviors did not predict interview and placement outcomes in a consistent manner. Environmental exploration and level of confidence were significantly related to the number of screening interviews. Only level of confidence and number of on-site interviews, however predicted job offers. The second hypothesis, then, was also partially supported. Finally, job satisfaction was related only to selected characteristics and job search behaviors. Number of job offers, environmental exploration, and certainty in search outcomes
were related to job satisfaction. Similar to the aforementioned hypotheses, then, partial support resulted (Steffy et al., 1989).

Although this overview of general career development and job placement literature does provide context for the existing body of research in the area, the aforementioned studies do not directly examine the relationships sought to be explored in this study. Therefore, a review of the existing literature on the relationship of academic and co-curricular variables with job placement will follow. This body of literature is much less robust, but it does provide some precedence for the relationships of the variables under examination for this study.

**Academic Variables and Job Placement**

Despite the limited nature of the existing body of literature, there are some studies that examine the impact of various academic variables upon job placement. Athey, Katz, Krueger, Levitt, and Poterba (2007), for instance, examined the impact of academic performance in graduate school upon employment outcomes for economics students at various elite universities. Athey et al. (2007) examined data from 1,029 economics graduate students related to independent variables such as grades in core courses, first year grades, and Graduate Record Examination (GRE) scores to predict various outcomes. Results indicated that, while other variables such as graduation from an elite undergraduate institution did relate to job placement, only one academic variable was significant. Of the academic variables examined, only first year microeconomics and macroeconomics grades were statistically significant predictors of student job placement upon graduation. No significant relationship was detected related to GRE scores (Athey et al., 2007). Although other studies examining academic variables exist, they typically do so in conjunction with co-curricular variables and thus will be discussed below.
Co-Curricular Variables and Job Placement

The body of literature related to the importance of co-curricular student experiences is growing. From internships to participation in student organizations to work experience, opportunities outside of the classroom have increasingly become a focus of job placement literature. Employers have noted the importance of such experiences. Bennett, Eagle, Mousley, and Ali-Choudhury (2008), for instance, surveyed the heads of graduate recruitment in 900 British firms, and found positive perceptions of students whose resumes included internships. Results of the survey indicated that recruiters were more likely to hire graduates who had participated in an internship than those who had not. Furthermore, the type of degree obtained and the type of institution from which the degree was received were perceived as less important to employers than one’s participation in an internship.

Taylor (1988) also examined recruiters’ perceptions of internship experiences. An experimental method was used whereby 101 business recruiters were asked to evaluate resumes manipulated to emulate different internship experiences and those with no internship experience. Recruiters were asked to evaluate the resumes on qualification for the jobs for which they were hiring, as well as on the probability of various hiring actions such as likelihood to interview and to extend job offers. Students with internship experience were evaluated as being significantly more qualified than were students without internships in all three resume conditions. Recruiters also indicated that the probability of hiring actions was significantly greater for interns. Collectively, recruiters’ perceptions indicated that participation in an internship can have significant positive influences on graduates’ career prospects.

Gault, Leach, and Dewey (2010) examined similar perceptions. In a survey of 185 intern employers, Gault et al. (2010) explored the perceived value of internships as it relates to hiring
decisions and resulting job offers. Results of this survey revealed that the majority of the employers in the study would hire their current interns post-graduation, and that their general preferences were to hire interns versus those without such experience.

**Internship Participation and Job Placement**

The benefits of internship participation extend beyond employer perceptions. In a survey of 163 undergraduate business seniors, Callanan and Benzing (2004) examined the relationship between the completion of an internship and use of the career center to employment in a career-oriented job upon graduation. Results revealed a significant correlation between participation in an undergraduate internship and employment in one’s field upon graduation. The relationship between number of career center visits and job placement, however, was not significant.

Knouse, Tanner, and Harris (1999) also examined the relationship between participation in an internship and subsequent job placement. Utilizing a sample of 1,117 college of business graduates from a large university in the southern United States, Knouse et al. (1999) surveyed students at graduation and then six months later to examine the variables under study. At graduation, the researchers (1999) compared those who had participated in internships versus those who had not on variables such as G.P.A, age, and employment status. Six months post-graduation, Knouse et al. (1999) compared those two groups on job placement status.

Results indicated that those who had participated in internships had a significantly higher G.P.A. and were more apt to be employed upon graduation than students without internships. Six months later, however, the advantage of those who had participated in internships had disappeared. Those who had participated in internships were equally as likely as those who had not to be employed, suggesting that perhaps there is a small window of opportunity for which internships provide employment advantages.
Academic and Co-Curricular Variables and Job Placement

The research reviewed thus far has only explored either academic or co-curricular variables as predictors of job placement. Most existing studies, however, examine a combination of both academic and co-curricular variables (Chia, 2005; Fang et al., 2005; Gabris & Mitchell, 1989; Gault et al., 2000; Lim et al., 2008; Richards, 1984; Sagen et al., 2000). Richards’ (1984) study provides an early example of the examination of academic and co-curricular variables as predictors of occupational outcomes. In an effort to examine these potential relationships, Richards (1984) collected data from 1977 University of Massachusetts- Boston liberal arts graduates at two different times: one year and three years post-graduation. Independent variables examined included age one year after graduation, sex, major, G.P.A., participation in a prevocational program, and employment status just before graduation. Measures of occupational outcomes included income, job stability, and employment status.

For the 218 respondents to the one year post-graduation survey, results indicated that part-time work as an undergraduate was the strongest predictor of employment status amongst the independent variables. There was not a significant relationship between internship participation and employment status, although it should be noted that only one in every six respondents reported having participated in such an experience. After three years, again, there was no relationship between internship participation and employment status. Additionally, the relationship between part-time work as an undergraduate and employment status had disappeared, suggesting that perhaps there is a limited window for taking advantage of these experiences. Of significance, however, was the relationship between G.P.A. and employment status. Those with higher grades as undergraduates were more likely to have obtained jobs related to their academic training (Richards, 1984).
More recent studies have expanded the investigation of these types of variables. Lim et al. (2008) investigated inherent individual, academic, and co-curricular characteristics that related to labor market outcomes for graduates in Malaysia. By collecting data through a survey of 349 graduates from a public university in Malaysia, Lim et al. (2008) examined independent variables including proficiency in the English language, ethnic group, gender, marital status, type of degree, industrial training, part-time work experience, and academic performance. Labor market outcomes were segregated by those who were unemployed, had obtained part-time employment, were employed full-time in positions commensurate with their qualifications, and had full-time work in positions not commensurate with their qualifications.

Data analyses indicated that graduates who had an accounting degree had better labor market outcomes than those with other types of degrees. Females had less favorable labor market outcomes than did men, as did Malaysian graduates as compared to non-Malaysian graduates. Part-time job experience related to more positive labor market outcomes, while industrial training had the reverse effect. Those who were proficient in the English language had better labor market outcomes than those who were not. Neither number of job applications nor academic performance related to employment outcomes. Thus, analysis suggested that type of degree, gender, ethnicity, and part-time job experience were all moderators of labor market outcomes. Additional analysis through logit modeling provided a more specific depiction of which independent variables had significant interaction with the four levels of the dependent variable measuring labor market outcomes. Type of degree revealed a significant interaction with full-time employment commensurate with graduates’ qualifications for those with accounting degrees. An additional significant relationship existed between Malaysian ethnicity
and less favorable labor market outcomes in terms of likelihood to be unemployed or underemployed (Lim et al., 2008).

Examining another global sample, Chia (2005) surveyed accounting graduates from a Hong Kong university. Chia’s (2005) study aimed to identify how level of extra-curricular activity participation, level of academic performance, and level of emotional intelligence relate to number of initial interviews, subsequent interviews, and job placements with the multinational Big 5 accounting firms. The sample was comprised of 83 accounting graduates, all of whom were ethnic Chinese, as was the admission requirement of the university from which they graduated. Results indicated that level of extra-curricular activity and academic performance were significantly correlated with number of initial job interviews. In terms of subsequent job interviews, level of emotional intelligence was significantly correlated, while academic performance and extra-curricular activity participation were not. Finally, results indicated that emotional intelligence was once again significantly correlated to number of job placements. However, neither academic performance nor level of extra-curricular activity was significantly related (Chia, 2005).

Other studies have focused on specific academic populations. Fang, Lee, Lee, and Huang (2005) examined various academic and co-curricular factors that impact full-time job placement upon graduation for management information system (MIS) majors at three universities in the United States. Independent variables examined for 213 graduating MIS majors included internship experience and the nature of that experience, having a double major, the timing of declaration of one’s major, G.P.A., and gender. Dependent variables included the number of job offers received, as well as the accepted offer salary.
Results of the study indicated that the student’s G.P.A., having participated specifically in a networking-oriented internship, and having a double major were significant predictors of full-time job placement. However, the adjusted R-squared value (.13) in the regression model was relatively low, suggesting the influence of other extraneous variables in predicting MIS job offers. As it relates to the other dependent variable, those who had double majors had significantly higher starting salaries. None of the other academic or co-curricular variables were significant (Fang et al., 2005).

In another study examining academic and co-curricular individual characteristics, Sagen et al. (2000) examined the impact of career preparation efforts and individual variables upon the initial employment success of recent college graduates. Utilizing a sample of 1,012 recent graduates who planned to enter the job market immediately post-graduation, Sagen et al. (2000) collected data on career preparation measures including participation in advanced skills courses, cooperative education, courses taken inside and outside of one’s major, internships, mentorships, related and unrelated work experiences, student organizations, and volunteer work. Academic and co-curricular variables included field of study as delineated by specialized-hard fields, specialized-soft fields, broad professional fields, and general studies, along with ACT scores, G.P.A., and gender. Two research questions were examined: 1) Are career preparatory experiences related to initial employment success? 2) If so, is this relationship mitigated by individual differences? Logistic regression was utilized to analyze the contribution of each variable and the corresponding statistical significance.

Results revealed that individual characteristics accounted for a moderate amount of variability in employment success ($R^2 = .26$). After adding supplementary career preparation, the collective consortium of variables accounted for .28 of the variation of the dependent variable.
While internships, work experience related to career goals, participation in student organizations, and having one’s career goals influence choice of major had positive effects on employment, results were very modest. Thus, results of the study suggest that perhaps employers first look at individual characteristics, and only then significantly examine supplemental preparatory factors (Sagen et al, 2000).

In examining conditional effects, consideration of the field of study became more important. Those in specialized hard fields were more successful in employment outcomes when they had work experience related to one’s career goals, had internship experiences, or were male. The strongest individual predictor of employment success was specialized-hard field of study.

Taking a somewhat different approach to the exploration of academic and co-curricular variables, Gabris and Mitchell (1989) examined how internship job performance related to full-time job placement. Data was collected from five years of interns who participated in the Mississippi Public Management Internship Program. In addition to the aforementioned purpose, Gabris and Mitchell (1989) also examined whether variables such as G.P.A., sex, race, age, and prior work experience were correlated with intern performance, intern job satisfaction, and career placement. From the 130 interns who participated in the study, results indicated that internship job performance, as rated by one’s supervisor, was significantly related to full-time job placement. Additionally, interns who had prior work experience in the private sector were also significantly more likely to obtain full-time jobs. G.P.A. and gender, however, were not significantly related to full-time job placement (Gabris & Mitchell, 1989).

Studies of employers have reinforced these findings. Cole, Rubin, Feild, and Giles (2007), for instance, explored how job applicants’ academic qualifications, work experience, and extra-curricular activities impacted recruiters’ perceptions of employability. Resumes were
obtained from 122 college of business seniors. Two hundred and forty-four employers were recruited from the Society of Human Resource Management to evaluate the resumes and rate them in terms of degree of employability. Results revealed that those applicants who ranked high on all three aspects (academic qualifications, work experience, and extra-curricular activities) were rated as the most employable. Conversely, those who were rated low on all three aspects were rated as least employable. Interestingly, however, in two cases, a high rating on a particular aspect was able to compensate for poor performance on another. Resumes that were rated low on extra-curricular and work experience but high on academic qualifications were still evaluated as highly employable. Similarly, those with low academic ratings but strong extra-curricular and work experience were also assessed as highly employable.

A final variable to be examined in this study is Use of Career Center. Literature related to career services is growing, though not specifically as a predictor of job placement. In recent years, as competition has grown for recruiting prospective students, the performance of career centers is under closer scrutiny (McGrath, 2002). Garver, Spralls III, and Divine (2009) identified five environmental factors that are pressuring career centers to increase their effectiveness. These factors include declining job markets, competition for prospective students, demand for a higher return on investment from the educational experience, less on-campus recruiting, and the economy (Garver et al., 2009).

As students and parents consider the return on investment that prospective institutions can offer, measurable outcomes of career centers have garnered closer attention (McGrath, 2002). More specifically, job placement rates upon graduation have come to be viewed as one signifier of the quality of an institution and its career services (McGrath, 2002). As such, students are increasingly viewing the primary role of the career center as the provider of job
acquiring attributes (Garver et al., 2009). Students rate the quality and quantity of companies with which to interview as two of the top job acquiring attributes for which career centers should be responsible (Garver et al., 2009).

Despite this increased focus, the quantitative success of career centers in coordinating job placements is not widely covered in existing literature. However, a few studies have cited a link between utilization of career services and higher job placement rates (Garver et al., 2009; Hanover Research, 2012). It is perhaps because of the relatively recent transformation of the role of the career center that these measurable outcomes have not yet become a significant focus of study. The current study hopes to build upon the existing body of research by measuring these outcomes.

**Academic Variables and Starting Salary**

Differences in starting salary based upon field of study have been documented (Hamermesh & Donald, 2008; Rumberger & Thomas, 2003). Rumberger and Thomas (2003), for instance, found that those in the business, health, science, and engineering fields typically earn more than those in education, humanities, and social sciences. Hamermesh and Donald (2008) conducted a thorough examination of the impact of student major on subsequent earnings. The study employed a random survey of graduates from the University of Texas from academic years 1979-1980, 1984-1985, 1989-1990, 1994-1995, and 1999-2000. Additional data was collected from academic records on G.P.A., major, SAT/ACT scores, and rank within one’s high school class. In order to examine the impact of major on salary, sample respondents were grouped by the college in which the major fell.

Results from the 2,015 respondents indicated that the highest earners were graduates from the honors college and the college of business. Graduates from these colleges reported
three times the income of the lowest-earning college, which was education. Of further note, however, is that earnings were mitigated by the control variables of ACT/SAT scores, G.P.A, and participation in higher level courses. Differences in earnings between majors were smaller when considering these control variables. Findings on how other academic and co-curricular variables impact starting salary were much less clear (Gault et al., 2000; Hamermesh & Donald, 2008).

Rumberger and Thomas (1993) examined how academic variables impact starting salary. In a large study of 8,021 graduates with bachelor’s degrees collected from the 1987 Survey of Recent College Graduates from 404 institutions, Rumberger and Thomas (1993) investigated the impact of college major, institutional quality, and college performance on the earnings of recent college graduates. Additionally, the article utilized data from 202 institutions from the Annual Survey of Colleges from 1985-1986 to examine the institutional quality variable. Results indicated significant differences for major, institution, and academic performance on starting salary. Those who majored in engineering, health, business, or science received a minimum of 20% higher salaries than those in the humanities. Males received a 3% salary premium for attending a more selective school, while females received 4% more. Finally, significant differences were found related to G.P.A. for the overall sample and for women. Females received a 5% higher salary for every one point increase in G.P.A.

Also investigating the relationship between G.P.A. and salaries were Jones and Jackson (1990). Jones and Jackson (1990) surveyed 811 business graduates from four class years five years after their respective graduation dates. Five years after graduation, significant differences in salary were found for those with a higher G.P.A. Each one point increase in G.P.A. resulted in an 8.9% higher salary five years post-graduation. These findings, however, must be considered
in the context of a significant limitation of the research design. Surveys sent to two of the four years of participants asked for a specific dollar amount to be reported for one’s salary, rendering a significant amount of missing data for participants who refused to answer that particular question. These participants were still included in the sample, and the researchers assigned an estimated salary for each. Therefore, 14% of the total sample’s dependent variable was represented by estimated salaries.

**Co-Curricular Variables and Starting Salary**

Although the body of literature is not sizeable, there are studies that have examined the relationship between co-curricular variables and starting salary. Most focus upon internships. Godofsky, Zukin, and Horn (2011), for instance, surveyed graduates from 2006-2010 from four-year institutions in the United States in an effort to better understand graduates’ transitions between higher education and the work force. Results from 571 graduates revealed that those who participated in at least one internship started at a salary of 20%, or $6,680 higher, than those who did not. In terms of work experience, those who demonstrated experience related to their major started at a $6,510 higher starting salary than those who did not.

Callanan and Benzing (2004) also examined the impact of internship participation. In a 2004 survey of graduating college of business seniors from a state university in the Mid-Atlantic, Callanan and Benzing found a significant positive correlation (.335) between internship participation and job placement. Results of a logistic regression revealed a 4.43 greater job placement odds ratio for those who participated in an internship versus those who did not.

Taylor (1988) investigated the relationship between internship participation and various aspects of individual career development. This study investigated how participation in internships impacted vocational self-concept, reality shock, and career opportunities. Vocational
self-concept was defined as the identification of career-oriented interests and skills. Reality shock was defined as the level of anxiety regarding the role, confusion about expectations, and intentions to remain on the job.

A quasi-experimental design was used to collect data for those who had participated in internships versus those who had not during four different timeframes: pre-internship, post-internship, during the job search, and after working on the job for eight weeks. The total sample consisted of 32 interns and 35 cohorts, or those who did not participate in internships but held similar characteristics to their comparison group otherwise.

The ANOVA results support that those who had participated in internships would significantly differed from those who did not on vocational self-concept measures. However, the subsequent MANOVA including control variables was not significant, signifying that perhaps the moderating variables were holding importance. The relationship between the reality shock measures and internship participation was not significant. Finally, Taylor’s (1988) investigation of the various career opportunity variables revealed that those who participated in internships received significantly higher starting salaries, but did not differ in terms of number of job offers received or percentage employed upon graduation.

**Academic and Co-Curricular Variables and Starting Salary**

Several studies have been conducted that examine academic and co-curricular variables together and their impact upon graduates’ starting salaries. Fuller and Schoenberger (1991) conducted one such study. The purpose of Fuller and Schoenberger’s (1991) study was to investigate the impact of major, G.P.A., internships, age, gender, and whether or not the job is related to one’s major on one’s starting salary as well as one’s salary several years post-graduation. Data was initially collected from 230 business graduates upon graduation, with a
follow-up survey completed by 128 of those original participants three years later. Results of Fuller and Schoenberger’s (1991) study showed significant differences for grades, internships, and major. Those who majored in accountancy, had participated in an internship, or had a higher G.P.A. had significantly higher starting salaries. However, three years post-graduation, none of these differences persisted. The authors surmised that these variables served as screening mechanisms in the recruitment process, but because they were not predictive of job performance, the differences in salary did not persist over time.

Sandvig, Tyran, and Ross (2005) provide another investigation of the relationship between academic and co-curricular factors and salary, albeit with a focused population. Sandvig et al. (2005) collected academic and placement data from 126 MIS graduates from Western Washington University from 1997-2003. To investigate these relationships, Sandvig et al. (2005) utilized the independent variables of internship experience, G.P.A., and the economy as predictors of starting salaries. Additional control variables included gender, age at graduation, size of employer, and a county income factor for the hiring employer. Regression results indicated that internship experience, G.P.A., job market, and size of employer were significantly related to starting salary. Of these factors, internships were found to be the strongest predictor of starting salaries. Furthermore, the strength of the internship factor as a predictor was higher when the economy was weak.

Gault, Redington, and Schlager (2000) investigated how internships and academic variables related to early career success measures, including starting salary. In order to examine these relationships, Gault et al. (2000) obtained data from 144 business alumni who had graduated in the previous five years from a public university in the northeastern United States. These respondents were split into two groups: those who had participated in a minimum of one
internship and those who had not. These groups were then compared on dependent variables such as extrinsic success as measured by starting salary and time to obtain first position, as well as intrinsic variables such as job satisfaction. Additionally, independent variables such as G.P.A. and major were compared on the extrinsic success measures.

Results revealed significant differences on the various extrinsic reward variables for those who had participated in internships as compared to those who had not. For instance, Gault et al. (2000) found that those with internship participation received greater entry-level compensation than non-interns, with starting salaries that averaged 9.2% higher. Additionally, those with internship participation obtained the first full-time job in a significantly shorter time than those who did not (2.0 vs. 4.3 months, respectively). As it relates to the academic variables considered, neither G.P.A. nor major were significant predictors of any of the extrinsic success measures.

Summary

Research on career development and early employment outcomes is on the rise. Studies have demonstrated, for instance, how differences in job search behaviors can impact student career development and graduate employment (Sagen et al., 1999, 2000; Saks & Ashforth, 1999; Steffy et al., 1989). Results here have been inconsistent, largely because of the vastly different approaches taken to examine these relationships. While Sagen et al. (1999) used job search variables such as direct contact with employers, written applications, response to want ads, and use of contacts for information sources, Steffy et al. (1989) operationalized job search variables in relation to the individual conducting the search. These variables included search focus, the intended-systematic search, environmental exploration, and certainty in search outcomes.
Along with differences in how job search variables were defined and operationalized, there were vast differences in the ways in which the data was collected. While some researchers held one data collection period around the time of graduation (Sagen et al., 1999, 2000), others used multiple waves of surveys at different times during the job search (Saks & Ashforth, 1999; Steffy et al., 1989). Because of the differences in variable definitions and the ways in which they were employed, it is understandable as to why literature on the job search as related to employment outcomes has rendered disparate results.

Of particular interest here, however, is how academic and co-curricular variables impact graduate job placement. Again, the body of literature here is growing. Some studies solely examined academic variables (Athey et al., 2007), while others only examined co-curricular variables such as internships (Bennett et al., 2008; Knouse et al., 1999). Most, however, have examined a combination of academic and co-curricular variables (Chia, 2005; Fang et al., 2005; Gabris & Mitchell, 1989; Gault et al., 2000; Lim et al., 2008; Richards, 1984; Sagen et al., 2000).

Although these studies have made a significant contribution to the body of job placement literature, they vastly differ both in terms of methodology and results. From a methodological standpoint, many of the studies focused upon unique, specific populations (Chia, 2005; Fang et al., 2005; Gabris & Mitchell, 1989; Lim et al., 2008). Two studies reviewed herein focused upon specific ethnic populations (Chia, 2005; Lim et al., 2008), one focused on a specific academic population of MIS students (Fang et al, 2005), and one targeted students from a specific internship program (Gabris & Mitchell, 1989). Because of these specific targets, generalizability to broader populations may be difficult.

An additional methodological limitation is the cross-sectional nature of most of the reviewed studies. Many are single-collection, cross-sectional designs (Athey et al, 2007; Chia,
2005; Lim et al, 2008; Sagen et al, 2000). Once again, although they have made useful contributions, the snapshot of one moment in time is perceived to be a limitation.

Moreover, the results rendered from these studies on variables predicting job placement have been inconsistent. In terms of academic variables related to job placement, G.P.A. has most frequently been studied. In several studies, G.P.A. has been shown to be significantly related to job placement (Fang et al., 2005; Richards, 1984; Sagen et al., 2000). However, other studies have found this relationship to lack significance (Chia, 2005; Gabris & Mitchell, 1989; Lim et al., 2008). Additionally, various studies have shown field of study to be an important indicator of job placement (Fang et al., 2005; Lim et al., 2008; Sagen et al., 2000). While specific outcomes measures here have varied, evidence exists that the type of major one undertakes can have a significant impact upon job placement (Lim et al., 2008; Sagen et al., 2000).

From a co-curricular perspective, the most significant research attention appears to have been given to internships. Again here, however, evidence of tangible benefits has been inconsistent. Several studies have found internships to positively impact job placement (Fang et al., 2005; Knouse et al., 1999; Sagen et al., 2000). Furthermore, recruiters have been shown to have more positive perceptions and a greater likelihood of hiring those with internship experience versus those without (Bennett et al., 2008; Taylor, 1988). As is the case with the previously-discussed academic variables, however, inconsistencies in findings exist. Richards (1984), for instance, found that internships did not predict job placement.

In addition to internships, other co-curricular variables have been examined on a more limited basis. Chia (2005), for instance, examined extra-curricular activities as a predictor of job placement, but did not find a significant relationship. Part-time work experience has also been
examined, and has been found to predict job placement in multiple studies (Lim et al, 2008; Richards, 1984).

Finally, as it relates to significant predictors of starting salary, studies have rendered disparate results. Although differences in starting salary based upon field of study have been established by some (Fuller & Schoenberger, 1991; Hamermesh & Donald, 2008; Rumberger & Thomas, 1993), others have not found a significant relationship (Gault et al., 2000). In terms of other academic variables, G.P.A. has been the primary focus. Several studies have shown G.P.A. to be significantly positively correlated with starting salary (Fuller & Schoenberger, 1991; Jones & Jackson, 1990; Rumberger & Thomas, 1993; Sandvig et al., 2005). Again, at least one study, however, has rendered a contradictory result, finding no relationship between G.P.A. and starting salary (Gault et al., 2000).

From a co-curricular standpoint, internships have been the primary focus in existing literature. The body of literature demonstrating the link between internship participation and starting salary is growing (Fuller & Schoenberger, 1991; Gault et al., 2000; Godofsky et al., 2011; Sandvig et al., 2005; Taylor, 1988). Furthermore, research has suggested that perhaps internship participation is more strongly related to starting salary than are other predictive variables (Sandvig et al., 2005).

Ultimately, the literature reviewed herein has made a significant contribution to the body of research on graduate job placement. However, it is perceived that much of the existing research has significant limitations. Many studies focused on very specific populations with single-collection cross-sectional designs, significantly limiting generalizability (Chia, 2005; Lim et al., 2008). What results is a body of research that, although enlightening, does not allow for a
clear, comprehensive picture of the factors predicting job placement and starting salary upon graduation (Sagen et al., 1999).

This study intends to add to the body of research in a number of ways. First, this study employs logistic and multiple regressions to analyze a significant number of Academic and Co-Curricular variables. This approach expands the scope of variables examined from most of the current existing research. Furthermore, this study contributes to the body of research with its examination of a unique combination of various dependent variables. In addition to examining predictors of Full-Time Job Placement, investigation also expands to predictors of Starting Salary, thereby increasing the breadth of what most single studies have previously covered. Finally, this study spans three academic years of graduates. This is perceived to improve upon most single-collection, cross-sectional designs as the results are less susceptible to an anomaly of an extraneous variable specific to one point in time. The researcher hopes that collectively, this study provides a comprehensive picture as to how students can leverage opportunities within their educational experiences to uniquely position themselves to achieve successful outcomes in this dynamic, challenging job market.
CHAPTER III. METHODOLOGY

This study sheds light on the various factors that predict Full-Time Job Placement and Starting Salary for graduating college seniors. In order to set the stage, however, it is necessary to describe the research design, participants, instrumentation, procedures, research questions, data analysis, and assumptions of the study at hand. Doing so allows for greater accessibility to and understanding of the variables under study.

Research Design

The research design in this study was correlational. A correlational research design is appropriate in this situation given the inability to manipulate the variables under study (Fraenkel & Wallen, 2009). Correlational research, then, was employed as the research design in order to examine the relationship between multiple variables (Fraenkel & Wallen, 2009). In this study, logistic and multiple regressions were utilized for a correlational research design to examine the variables that predict Full-Time Job Placement upon graduation, Starting Salary, and Job Attainment in the Area of Specialization.

Participants

A secondary data set was used for this study. The population from which this sample was derived included graduating seniors from the College of Business Administration (CBA) from a mid-sized, Midwestern, public four-year research institution. Data was obtained through convenience sampling with those graduating seniors who attended the College’s graduation ceremonies in a three year period. This method of data collection yielded approximately 60% of the total population of College of Business graduates in the three years being examined.

Sample participants were graduating seniors from the academic years of 2009 through 2012 from the College of Business Administration. Total graduating seniors from academic
years 2009 through 2012 approximated 1,100. From this total population, a sample of approximately 630 students attended graduation and completed the Senior Survey. However, 172 students did not provide their university identification number, which was necessary in this study in order to allow for a comparison of academic factors (such as G.P.A.) to participant responses on the College of Business Administration Senior Survey. Data was collected at each of the three graduation ceremonies during the course of each year under study. Because the largest number of students graduated in the May ceremony, the highest number of survey participants emerged from this data collection point. The second largest group of participants emerged from the December ceremony, followed by the August ceremony.

After collection, the data entry from the CBASS was managed by personnel from the College of Business Administration. In order to obtain G.P.A. information, the Department of Institutional Research sent spreadsheets for all graduates from the College of Business Administration for that particular year. G.P.A. information was then merged with the individual CBASS responses, at which point the data set was sent to the researcher with no identifiable information.

The vast majority of the members of this population were 21 to 23 years old at the time of the study, residents of the state of Ohio, and of Caucasian descent. Within the College of Business, approximately 66% of students were male, while 34% were female. International students comprised 5% of the total College of Business undergraduate population.

**Instrumentation**

The instrument used to collect data in this study was the College of Business Administration Senior Survey (CBASS). The CBASS was developed by the Dean and college administrators to examine the future plans and perceptions of the collegiate experience of
graduating seniors. Students were asked to provide their college identification number to allow for assessment of demographic information.

The CBASS Senior Survey was comprised of four sections, including A) Overall Evaluation of the CBA, B-C) Future Plans After Graduation, D) Participation in on and off-campus activities, and E) miscellaneous questions. Within Section A, Overall Evaluation of the College, items A1-A2 gathered information on the student’s specialization, while A3a-A3e assessed perceptions of the quality of the teaching, advising, classrooms, computer labs, other CBA facilities, and overall CBA experiences. These items were measured on a five-point Likert scale, with five indicating an excellent rating, and one denoting a poor rating. A score of zero indicated that the student did not use the particular aspect of the CBA being evaluated.

Within the sections B-C, respondents indicated their future plans after graduation. In Section B, respondents indicated whether they were seeking employment, while Section C asked them to indicate if they were planning to attend graduate school. Items in both subsections included discrete variables in addition to open-ended questions. Within the Seeking Employment subsection, items B1 and B6 asked the respondents to specify whether they had secured employment or were still searching, while items B2-B5 and B7-B9 addressed more detailed information about their future employment based upon their responses to the aforementioned items. Within the Attend Graduate School subsection, item C1 asked participants to indicate which type of graduate program they planned to pursue, while item C2 requested the name of the institution. Finally within this subsection, item C3 was an open-ended question that asked for the respondents to describe their plans if they did not include full-time employment or graduate school.
Within Section D, Participation, three items (D1-D3) gauged student involvement in College of Business, University, and Community Organizations. The five-point Likert scale ranged from a response of zero, which indicated no participation, to a four, which represented a great deal of participation.

Section E of the survey garnered miscellaneous feedback and information, including reflections upon the CBA experience and resources provided, as well as items related to resources utilized. Of specific interest in this study, item H garnered information about internship and co-op experiences, and items I and J discussed experiences with the Career Center. Again, this section included both categorical and open-ended items, but did provide more significant opportunities for unscripted feedback than did the aforementioned areas. Of the seven items within this section, three were open-ended questions, while the other four required categorical responses.

Lastly, a statement at the end of the survey thanked seniors for their participation, and explained the importance of the data collected. It is indicated that the information collected is used for important College initiatives such as submission of selected data to Business Week, who bases national quality rankings on the data received. The survey also indicated that identification numbers were requested for comparative and summary research purposes.

**Procedures**

The CBASS has been distributed to graduating seniors attending each of the three graduation ceremonies over the course of the year since 2006. Graduation ceremonies at this university take place in May, August, and December each year. Voluntary completion of the survey was requested of all seniors who attended the graduation ceremonies prior to their commencement activities. Although survey completion was voluntary, the completion rate is
estimated at 90% of those graduating seniors in attendance at the ceremonies according to CBA administrators.

College administrators collected completed surveys from the graduating seniors, who were thanked for their participation. Completed surveys were then given to the Management Analyst in the College of Business Administration for processing. This Management Analyst then entered all of the raw data into Excel spreadsheets. Responses to the CBASS were entered into one Excel spreadsheet, while demographic information, including G.P.A., matched by identification number was obtained from the Department of Institutional Research in a separate spreadsheet. Additionally, in order to compare differences in Starting Salary between years, the three data sets representing the three academic years under study were then merged into one comprehensive spreadsheet. The data sets was stripped of all identifying characteristics prior to distribution to the researcher. Thus, the data obtained was anonymous. Because the data set was accessed from a secondary source, a review from the Human Subjects Review Board (HSRB) was waived.

**Research Questions**

**Research Question 1**

1a. Which Academic and Co-Curricular variables best predict Full-Time Job Placement upon graduation?

1b. Which Academic and Co-Curricular (including Organization Participation) variables predict Full-Time Job Placement upon graduation?

**Research Question 2**

2a. Do Academic and/or Co-Curricular variables significantly predict Starting Salary?

2b. Does Starting Salary significantly differ by Area of Specialization?
Research Question 3

3a. Does Internship Participation significantly predict Job Attainment in Area of Specialization?

3b. Does Degree of Internship Participation significantly predict Job Attainment in Area of Specialization?

Data Analysis

Within this study, G.P.A.; Area of Specialization; Degree of Internship Participation; Participation in College of Business Organizations, University Organizations, and Community Organizations; and Use of Career Center were examined in order to predict Full-Time Job Placement upon graduation, Starting Salary, and Job Attainment in Area of Specialization (see Table 1). Independent variables were both categorical and quantitative, and were a mixture of Academic variables and Co-Curricular items measured directly from the CBASS. The various other independent variables were measured from data obtained directly from the CBASS.

The data collected directly from the CBASS was used to operationalize one categorical and four quantitative independent variables. Degree of Internship Participation served as a quantitative independent variable and was measured on an interval scale. Three additional quantitative independent variables were Participation in College of Business Organizations, University organizations, and Community Organizations. Each was measured on an interval scale by level of participation. Finally, Use of Career Center was measured as a categorical independent variable indicating whether or not the students utilized these campus services.
Table 1

**Variable Quantification**

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Type of Variable</th>
<th>Corresponding Item Number</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>G.P.A.</td>
<td>Quantitative</td>
<td>As identified by student ID</td>
<td>As specified by G.P.A. value (0.0 - 4.0 scale)</td>
</tr>
<tr>
<td>Degree of Internship Participation</td>
<td>Quantitative</td>
<td>H</td>
<td>0 = 0; 1 = 1; 2 = 2; 3 = more than 2; 4 = did not apply</td>
</tr>
<tr>
<td>Internship Participation</td>
<td>Categorical</td>
<td>H</td>
<td>0 = no 1 = yes</td>
</tr>
<tr>
<td>Participation in College of Business Organizations</td>
<td>Quantitative</td>
<td>D1</td>
<td>0 = not at all; 1 = little; 2 = some 3 = quite a lot; 4 = a great deal</td>
</tr>
<tr>
<td>Participation in University Organizations</td>
<td>Quantitative</td>
<td>D2</td>
<td>0 = not at all; 1 = little; 2 = some 3 = quite a lot; 4 = a great deal</td>
</tr>
<tr>
<td>Participation in Community Organizations</td>
<td>Quantitative</td>
<td>D3</td>
<td>0 = not at all; 1 = little; 2 = some 3 = quite a lot; 4 = a great deal</td>
</tr>
<tr>
<td>Organization Participation</td>
<td>Quantitative</td>
<td>D1, D2, D3</td>
<td>0 = not at all; 1 = little; 2 = some 3 = quite a lot; 4 = a great deal</td>
</tr>
<tr>
<td>Use of Career Center</td>
<td>Categorical</td>
<td>I</td>
<td>0 = no 2 = yes</td>
</tr>
<tr>
<td>Full-Time Job Placement</td>
<td>Categorical</td>
<td>B6</td>
<td>1 = yes 2 = no</td>
</tr>
<tr>
<td>Starting Salary</td>
<td>Quantitative</td>
<td>B3</td>
<td>As specified by $ amount</td>
</tr>
<tr>
<td>Job Attainment in Area of Specialization</td>
<td>Categorical</td>
<td>B5</td>
<td>0 = no 1 = yes</td>
</tr>
</tbody>
</table>

Descriptive statistics were conducted to examine the measures of central tendency and variability for G.P.A., Degree of Internship Participation, and level of Participation in College of Business, University, and Community Organizations. Additionally, descriptive statistics were used to present percentages of students who have obtained Full-Time Job Placement. Finally, inferential statistics were utilized to directly examine the research questions presented (see Table
2). Logistic regression was identified as the appropriate data analysis method to address the first and third research questions regarding which variables best predict Full-Time Job Placement and job placement within one’s area of specialization. In this study, Full-Time Job Placement and Job Placement in Area of Specialization were examined as categorical variables for which only two values exist. Logistic regression has been identified as the appropriate data analysis method given its propensity for use with dichotomous dependent variables (Mertler & Vannatta, 2010). Additionally, logistic regression has the ability to predict membership in one category or the other of a dichotomous dependent variable by accounting for multiple independent variables, including those that are categorical (Mertler & Vannatta, 2010).

Ultimately, the goal of the logistic regression was twofold: 1) Determine which factors have the highest capability of predicting Full-Time Job Placement and Job Placement in Area of Specialization for graduating seniors; 2) Develop a model that accounts for a high a degree of variability in the dependent variable as predicted by the independent variables in this study.

For the second research question, multiple regression was utilized to examine if Academic and/or Co-Curricular variables significantly predict Starting Salary. Multiple regression was identified as the appropriate data analysis for use with numerous independent quantitative variables and a single quantitative dependent variable (Mertler & Vannatta, 2010). In this case, multiple regression was used to examine if G.P.A., Area of Specialization, Degree of Internship Participation, and/or College of Business Organizations, Campus Organizations, or Community Organizations can predict Starting Salary.
Table 2

Research Questions, Variables, and Data Analyses

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Independent Variable(s)</th>
<th>Dependent Variable</th>
<th>Data Analysis Technique</th>
</tr>
</thead>
</table>
Co-Curricular: Degree of Internship Participation, Participation in CBA Orgs, Participation in Campus Orgs, Participation in Community Orgs, Use of Career Center | Full-Time Job Placement | Logistic Regression |
| 1b. Which Academic and Co-Curricular (including Organization Participation) variables predict Full-Time Job Placement upon graduation? | Academic: G.P.A., Area of Specialization  
Co-Curricular: Degree of Internship Participation, Organization Participation, Use of Career Center | Full-Time Job Placement | Logistic Regression |
| 2a. Do Academic and/or Co-Curricular variables significantly predict Starting Salary? | Academic: G.P.A.  
Co-Curricular: Degree of Internship Participation, Participation in CBA Orgs, Participation in Campus Orgs, Participation in Community Orgs | Starting Salary | Multiple regression |
| 2b. Does Starting Salary significantly differ by Area of Specialization? | Area of Specialization | Starting Salary | One-Way ANOVA |
| 3a. Does Internship Participation significantly predict Job Attainment in Area of Specialization? | Internship Participation | Job Attainment in Area of Specialization | Logistic regression |
| 3b. Does Degree of Internship Participation significantly predict Job Attainment in Area of Specialization? | Degree of Internship Participation | Job Attainment in Area of Specialization | Logistic regression |
Assumptions

In order for the study described herein to make a significant contribution to the current body of research in this field, several assumptions must be held as true. One assumption is that the method of data collection, because it spanned over the course of three academic years, must have been done in a consistent manner across sessions. Failure to ensure consistency in this area could jeopardize the reliability of the results of the study. Additionally, it must be assumed that participants responded to the questionnaire with honesty and in the spirit of full disclosure. Once again, without this assumption, the reliability of the outcomes of the study could be jeopardized.
CHAPTER IV. RESULTS

This study sought to determine if various Academic and Co-Curricular variables predict Full-Time Job Placement and Starting Salary upon graduation for college of business students. In an effort to examine the aforementioned relationships, logistic and multiple regressions were applied. Utilizing the Statistical Package for Social Sciences (SPSS), the data for this study was analyzed through both descriptive and inferential statistics. What follows is a presentation of the descriptive and inferential statistics related to the three research questions, followed by a summary of the findings.

Descriptive Statistics

Descriptive statistics were analyzed for each of the independent and dependent variables. In an effort to set the context for an examination of the research questions, several demographic variables were examined in relation to the dependent variables. Since the data represents graduates from three classes (2009-2012), several variables were compared by year. The percentage of participants who were able to obtain Full-Time Job Placement upon graduation differed by year $\chi^2 (2) = 12.910, p = .002$. Graduates in the 2009-2010 academic year demonstrated the lowest percentage of Full-Time Job Placement, with only 29.4% having secured a job at the time of the study. In 2010-2011, 45.4% reported having secured full-time employment, and in 2011-2012, 40.2% had obtained a job. Thus, results appear to indicate that students in this study were detrimentally impacted by the economic downturn that coincided with the first year of the study.

Conversely, Starting Salary did not significantly differ by graduation year. Only subtle, insignificant differences occurred, with graduates from the 2009-2010 academic year averaging a Starting Salary of $40,409; graduates from 2010-2011 averaging $45,050; and graduates from
2011-2012 averaging $46,403. Thus, although the economy did appear to have an impact upon the percentage of graduates obtaining jobs, it did not significantly impact the compensation received for those who were placed.

This study also examined Participation in College of Business Organizations, University Organizations, as well as Community Organizations. The vast majority of the students in this study reported at least some degree of participation in each of these co-curricular experiences (see Table 3). In fact, less than 21% of students reported not having any degree of participation in each of the three organizational co-curricular categories. While the greatest percentage of students in both the College of Business and Community Organization categories reported having “some” participation, students in University Organizations most frequently reported “a great deal” of participation.

Table 3

<table>
<thead>
<tr>
<th></th>
<th>College of Business Organizations (n = 581)</th>
<th>University Organizations (n = 579)</th>
<th>Community Organizations (n = 576)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>Not at All</td>
<td>120</td>
<td>20.7</td>
<td>111</td>
</tr>
<tr>
<td>Little</td>
<td>116</td>
<td>20.0</td>
<td>96</td>
</tr>
<tr>
<td>Some</td>
<td>163</td>
<td>28.1</td>
<td>134</td>
</tr>
<tr>
<td>Quite a Lot</td>
<td>61</td>
<td>10.5</td>
<td>78</td>
</tr>
<tr>
<td>A Great Deal</td>
<td>121</td>
<td>20.8</td>
<td>160</td>
</tr>
</tbody>
</table>

Respondents were also active internship participants (see Table 4). Of the 490 students reporting on their Degree of Internship Participation, 64.4% indicated that they had taken part in at least one internship during their college tenure. Thus, just over one-third of the students indicated that they had not participated in an internship prior to graduation.
Table 4

Degree of Internship Participation (n = 490)

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>174</td>
<td>35.5</td>
</tr>
<tr>
<td>1</td>
<td>178</td>
<td>36.3</td>
</tr>
<tr>
<td>2</td>
<td>104</td>
<td>21.2</td>
</tr>
<tr>
<td>More Than 2</td>
<td>34</td>
<td>6.9</td>
</tr>
</tbody>
</table>

Descriptive statistics were also run to analyze the overall experience of the participants as it relates to Full-Time Job Placement, Internship Participation, and Use of Career Center (see Table 5). For the total sample, only 37.9% of participants reported having obtained Full-Time Job Placement at the time of the study. Reported Use of Career Center was nearly split down the middle. While 48.6% reported that they had utilized the Career Center to aid in their job search, 51.4% indicated that they had not.

Table 5

Full-Time Job Placement, Internship Participation, and Use of Career Center

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Full-Time Job Placement</td>
<td>630</td>
<td>239</td>
<td>37.9</td>
</tr>
<tr>
<td>Internship Participation</td>
<td>490</td>
<td>316</td>
<td>64.5</td>
</tr>
<tr>
<td>Use of Career Center</td>
<td>630</td>
<td>306</td>
<td>48.6</td>
</tr>
</tbody>
</table>

For the purpose of this study, Area of Specialization was largely grouped according to the existing departments within the college of business under study. To date, there are six academic departments within the college. However, only five of these departments offer undergraduate specializations. One department was split into two categories based upon the recommendation of faculty within the CBA. Although both the Management and Supply Chain Management specializations operate within one department within the college, it was advised that those two
majors be split as graduates from these majors had demonstrated disparate employment and salary outcomes. Thus, Supply Chain Management was considered in a specialization category of its own. An additional category was created to account for majors that had been discontinued, and those who had received general business degrees.

Descriptive statistics revealed that the vast majority of participants in this study graduated from the Accounting and Management Information Systems (MIS), Supply Chain Management, and Marketing specializations. In fact, 68.9% of participants were graduates of those three Area of Specialization alone. Of the 547 participants who reported their major, the Accounting and MIS specialization was most popular (n = 153), followed by Marketing (n = 114), Supply Chain Management (n = 110), Finance (n = 69), General Business and discontinued majors (n = 40), Economics (n = 32), and finally Management (n = 29).

Table 6

<table>
<thead>
<tr>
<th>Area of Specialization</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting and Management Information Systems</td>
<td>153</td>
<td>28.0</td>
</tr>
<tr>
<td>Economics</td>
<td>32</td>
<td>5.9</td>
</tr>
<tr>
<td>Finance</td>
<td>69</td>
<td>12.6</td>
</tr>
<tr>
<td>Management</td>
<td>29</td>
<td>5.3</td>
</tr>
<tr>
<td>Supply Chain Management</td>
<td>110</td>
<td>20.1</td>
</tr>
<tr>
<td>Marketing</td>
<td>114</td>
<td>20.8</td>
</tr>
<tr>
<td>General Business and Discontinued Majors</td>
<td>40</td>
<td>7.3</td>
</tr>
</tbody>
</table>

Descriptive statistics for G.P.A. and Starting Salary reveal that of 458 participants with a reported G.P.A., a mean of 3.03 emerged, with a standard deviation of 0.46. In terms of Starting Salary, the 200 participants who reported this figure averaged $45,560 in initial wages, with a
standard deviation of $9,211. As was previously discussed, there was no significant difference in Starting Salary by graduation year.

Table 7

*Descriptive Statistics for G.P.A. and Starting Salary*

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>G.P.A.</td>
<td>458</td>
<td>3.03</td>
<td>0.46</td>
</tr>
<tr>
<td>Starting Salary</td>
<td>200</td>
<td>45559.50</td>
<td>9211.01</td>
</tr>
</tbody>
</table>

**Inferential Results by Research Question**

**Research Question 1a**

Which Academic (G.P.A. and Area of Specialization) and Co-Curricular (Degree of Internship Participation, Participation in College of Business Organizations, Participation in Campus Organizations, Participation in Community Organizations, Use of Career Center) variables best predict Full-Time Job Placement upon graduation?

Results of the forward logistic regression revealed a three-factor predictive model for Full-Time Job Placement upon graduation for college of business students. The resulting model was statistically significant, indicating that the set of predictors reliably differentiated between those who did versus did not obtain Full-Time Job Placement (-2 Log Likelihood = 428.560, \(\chi^2(8) = 40.01, p < .0001\)). The Wald criterion demonstrated that Degree of Internship Participation \((p = .002)\), G.P.A. \((p = .029)\), and Area of Specialization \((p = .036)\) were all statistically significant indicators of Full-Time Job Placement in this study. This three-factor model correctly predicted 67.2% of the cases. Participation in College of Business Organizations, Participation in Campus Organizations, Participation in Community Organizations, and Use of Career Center did not enter into the model. Table 8 presents the regression coefficients for this model predicting Full-Time Job Placement.
Table 8

*Regression Coefficients for Model Predicting Full-Time Job Placement (n = 351)*

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>Wald</th>
<th>df</th>
<th>p</th>
<th>Odds Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degree of Internship Participation</td>
<td>.409</td>
<td>9.195</td>
<td>1</td>
<td>.002</td>
<td>1.506</td>
</tr>
<tr>
<td>G.P.A</td>
<td>.584</td>
<td>4.777</td>
<td>1</td>
<td>.029</td>
<td>1.794</td>
</tr>
<tr>
<td>Area of Specialization</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accounting and Management Information Systems</td>
<td>.545</td>
<td>.792</td>
<td>1</td>
<td>.374</td>
<td>1.725</td>
</tr>
<tr>
<td>Economics</td>
<td>.243</td>
<td>.088</td>
<td>1</td>
<td>.767</td>
<td>1.275</td>
</tr>
<tr>
<td>Finance</td>
<td>1.097</td>
<td>2.939</td>
<td>1</td>
<td>.086</td>
<td>2.995</td>
</tr>
<tr>
<td>Management</td>
<td>.570</td>
<td>.559</td>
<td>1</td>
<td>.455</td>
<td>1.768</td>
</tr>
<tr>
<td>Supply Chain Management</td>
<td>1.571</td>
<td>6.200</td>
<td>1</td>
<td>.013</td>
<td>4.810</td>
</tr>
<tr>
<td>Marketing</td>
<td>.650</td>
<td>1.125</td>
<td>1</td>
<td>.289</td>
<td>1.916</td>
</tr>
</tbody>
</table>

The odds ratios for Degree of Internship Participation and G.P.A. were relatively weak. Participation in an internship increased the odds of securing a full-time job increased by 1.5 times. An increase of G.P.A. by one point resulted in a greater likelihood of obtaining Full-Time Job Placement by 1.7 times. Odds ratios for two of the Areas of Specializations were higher. Majoring in Supply Chain Management created the highest odds ratio of all of the Specializations, increasing the odds by 4.8 times of securing Full-Time Job Placement. The Finance Specialization odds ratio was the second highest, increasing the odds by 3.0 times of obtaining a full-time position. Neither Use of Career Center nor Participation in College of Business, University, or Community Organizations was a significant predictor.

**Research Question 1b**

Which Academic and Co-Curricular (including Organization Participation) variables predict Full-Time Job Placement upon graduation?

Since the three independent variables of Participation in College of Business Organizations, Participation in Campus Organizations, and Participation in Community
Organizations did not predict Full-Time Job Placement, the researcher then examined if overall participation in these areas, which summed the three variables, predicted Full-Time Job Placement. Therefore, a subsequent binomial logistic regression was conducted for research question 1b to ascertain whether overall Participation in College of Business, University, or Community Organizations might enter into the predictive model, whereas the participation in these organizations would be considered collectively. Because each of these three variables utilized the same interval scale determining level of participation, they lent themselves to the ability to create a combined Organizational Participation variable. Thus, the three organizational participation variables (College of Business, University, and Community) were combined into a new variable, Organization Participation. This variable represented the sum of one’s participation in these organizations, as calculated by adding the level of participation for each of the three participation variables. This second analysis generated the same model of three predictors (Degree of Internship Participation, G.P.A., and Area of Specialization) and did not include the overall Organization Participation variable.

**Research Question 2a**

Do Academic and/or Co-Curricular variables significantly predict Starting Salary?

A Pearson Correlation was conducted to examine any potentially-significant relationships between the quantitative variables. Results of a Pearson Correlation revealed significant but weak relationships with Starting Salary for Degree of Internship Participation ($r = .276$), G.P.A. ($r = .151$), and Participation in College of Business Organizations ($r = .169$) at the .05 level (See Table 9). Although Use of Career Center and Participation in University and Community Organizations resulted in positive correlation coefficients, they were not statistically significant.
Table 9

Correlation Coefficients of Academic and Co-Curricular Variables with Starting Salary (n = 121)

<table>
<thead>
<tr>
<th></th>
<th>r</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>G.P.A.</td>
<td>.151</td>
<td>.049</td>
</tr>
<tr>
<td>Use of Career Center</td>
<td>.070</td>
<td>.223</td>
</tr>
<tr>
<td>Degree of Internship Participation</td>
<td>.276</td>
<td>.001</td>
</tr>
<tr>
<td>Participation in College of Business Organizations</td>
<td>.169</td>
<td>.032</td>
</tr>
<tr>
<td>Participation in University Organizations</td>
<td>.011</td>
<td>.451</td>
</tr>
<tr>
<td>Participation in Community Organizations</td>
<td>-.041</td>
<td>.327</td>
</tr>
</tbody>
</table>

In addition to the Pearson Correlation, a multiple regression was conducted to examine which independent variables could best predict the dependent variable of Starting Salary.

Multiple regression was utilized because of its ability to predict a single quantitative variable through the examination of multiple quantitative independent variables (Mertler & Vannatta, 2010). A forward multiple regression resulted in a one-factor predictive model (See Table 10). The one-factor predictive regression model that resulted indicated that only Degree of Internship Participation significantly predicted Starting Salary; $R^2 = .076$, $F(1,119) = 9.82$, $p = .002$. Thus, the higher the number of internships in which one participated, the higher one’s Starting Salary upon graduation. Although G.P.A. and Participation in College of Business Organizations resulted in statistically significant correlations, these variables did not account for a significant amount of variance in the dependent variable and therefore did not enter into the model.

Table 10

Regression Coefficients of Model Predicting Starting Salary (n = 121)

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>β</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>41892.868</td>
<td></td>
<td>30.254</td>
<td>.000</td>
</tr>
<tr>
<td>Degree of Internship Participation</td>
<td>2694.114</td>
<td>.276</td>
<td>3.134</td>
<td>.002</td>
</tr>
</tbody>
</table>
**Research Question 2b**

Does Starting Salary significantly differ by Area of Specialization?

Results of a one-way ANOVA ($F (6, 158) = 6.33, p < .0001$) revealed that there were significant differences in Starting Salary based upon Area of Specialization (see Table 11). Scheffé post hoc results indicated that Supply Chain Management graduates ($\$49,360$) had significantly higher Starting Salary than Management graduates ($\$38,029$).

Table 11

*Starting Salary by Area of Specialization (n = 165)*

<table>
<thead>
<tr>
<th>Area of Specialization</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting and Management Information Systems</td>
<td>$47,694.00</td>
<td>$6,514.90</td>
</tr>
<tr>
<td>Economics</td>
<td>$41,666.67</td>
<td>$11,500.73</td>
</tr>
<tr>
<td>Finance</td>
<td>$43,318.18</td>
<td>$9,740.13</td>
</tr>
<tr>
<td>Management</td>
<td>$38,028.57</td>
<td>$8,811.87</td>
</tr>
<tr>
<td>Supply Chain Management</td>
<td>$49,360.38</td>
<td>$4,982.47</td>
</tr>
<tr>
<td>Marketing</td>
<td>$40,983.33</td>
<td>$11,219.20</td>
</tr>
<tr>
<td>General Business and Discontinued Majors</td>
<td>$40,500.00</td>
<td>$4,407.79</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$45,437.58</td>
<td>$8,621.31</td>
</tr>
</tbody>
</table>

**Research Question 3a**

Does Internship Participation significantly predict Job Attainment in Area of Specialization?

Research question 3a examined whether Internship Participation (yes/no) significantly predicted Job Attainment in Area of Specialization (yes/no). Frequencies and logistic regression were used for this analysis in order to examine group membership and to determine if Internship Participation was a significant predictor of Job Attainment in Area of Specialization.

Because both variables were dichotomous categorical variables, frequencies and percentages are presented for group membership in Table 11. A total of 191 participants entered into the analysis who had indicated that they had obtained Full-Time Job Placement, provided
their level of internship participation, and identified their Area of Specialization. Of those 191 participants, 152 indicated that they had participated in at least one internship. Of those, 141, or 73.82%, indicated that they had obtained a job in their Area of Specialization. Only 5.76% of participants who had participated in an internship indicated that the role that they had obtained was not in their Area of Specialization. It is of note, however, that the cell sizes for those whose employment was not in their Area of Specialization were quite small.

Table 12

<table>
<thead>
<tr>
<th>Job in Area of Specialization</th>
<th>Job Not in Area of Specialization</th>
<th>Total Internship Participation Among Those with Full-Time Job Placement</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>Internship Participation</td>
<td>141</td>
<td>73.82</td>
</tr>
<tr>
<td>No Internship Participation</td>
<td>30</td>
<td>15.71</td>
</tr>
<tr>
<td>Total Job Attainment in Area of Specialization with Full-Time Job Placement</td>
<td>171</td>
<td>89.53</td>
</tr>
</tbody>
</table>

A logistic regression was conducted, using the Enter method, to explore the degree to which Internship Participation predicted Job Attainment in one’s Area of Specialization.

Interestingly, regression coefficients (see Table 12) revealed that there was a significant negative relationship between Internship Participation and Full-Time Job Placement in one’s Area of Specialization (-2 Log Likelihood = 121.092, $\chi^2(1) = 6.999$, $p = .008$). The Wald criterion demonstrated statistical significance in the relationship between Internship Participation and Job
Attainment in one’s Area of Specialization ($p = .006$). Odds ratios revealed that if one participated in one or more internships, the odds of finding a job within one’s Area of Specialization decreased by .26 times. In other words, simply participating in one internship was not sufficient to increase the odds of obtaining a job in one’s Area of Specialization. Although this model resulted in a negative significant relationship, the odds ratio is quite low, indicating that the model is quite weak. In this model, Internship Participation correctly predicted 89.5% of the cases.

Table 13

*Regression Coefficients for Internship Participation Predicting Job Attainment in Area of Specialization (n = 191)*

<table>
<thead>
<tr>
<th></th>
<th>$B$</th>
<th>$Wald$</th>
<th>$df$</th>
<th>$p$</th>
<th>Odds Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internship Participation</td>
<td>-1.347</td>
<td>7.483</td>
<td>1</td>
<td>.006</td>
<td>.260</td>
</tr>
<tr>
<td>Constant</td>
<td>2.551</td>
<td>66.396</td>
<td>1</td>
<td>.000</td>
<td>12.818</td>
</tr>
</tbody>
</table>

**Research Question 3b**

Does Degree of Internship Participation significantly predict Job Attainment in Area of Specialization?

Research question 3b explored whether Degree of Internship Participation significantly predicted Job Attainment in Area of Specialization. This relationship was included in the analysis in order to determine whether Internship Participation (yes/no) had a different relationship with Job Attainment in Area of Specialization than did Degree of Internship Participation. Cross tabulation was conducted to determine group membership for each of the variables, resulting in the contingency table below (see Table 13). Those completing two or more internships demonstrated the lowest percentages of Job Not in Area of Specialization, with Two Internships Completed resulting in 1.57% of participants not obtaining a job in their Area of
Specialization. Of those who completed three or more internships, every student who had obtained Full-Time Job Placement reported having done so in their Area of Specialization. In total, only 10.47% of participants reported not having obtained Job Placement in Area of Specialization.

Table 14

*Group Membership for Degree of Internship Participation and Job Attainment in Area of Specialization (n = 191)*

<table>
<thead>
<tr>
<th>Number of Internships Completed</th>
<th>Job in Area of Specialization</th>
<th>Job Not in Area of Specialization</th>
<th>Total Degree of Internship Participation Among Those with Full-Time Job Placement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><em>n</em></td>
<td>%</td>
<td><em>n</em></td>
</tr>
<tr>
<td>Zero Internships Completed</td>
<td>30</td>
<td>15.71%</td>
<td>9</td>
</tr>
<tr>
<td>One Internship Completed</td>
<td>66</td>
<td>34.55%</td>
<td>8</td>
</tr>
<tr>
<td>Two Internships Completed</td>
<td>54</td>
<td>28.27%</td>
<td>3</td>
</tr>
<tr>
<td>Three or More Internships Completed</td>
<td>21</td>
<td>10.99%</td>
<td>0</td>
</tr>
<tr>
<td>Total Job Attainment in Area of Specialization with Full-Time Job Placement</td>
<td>171</td>
<td>89.53%</td>
<td>20</td>
</tr>
</tbody>
</table>

Using the Enter method, a logistic regression was conducted to determine if Degree of Internship Participation predicted Job Placement in Area of Specialization. The resulting regression coefficients (see Table 14) demonstrated a positive significant relationship between Degree of Internship Participation and Job Placement in Area of Specialization (-2 Log Likelihood = 117.180, $\chi^2(1) = 10.910, p = .003$). The odds ratio revealed that for every
internship one completed, the likelihood of obtaining a Job in one’s Area of Specialization increased by 2.6 times. The odds ratio in this model was much larger than the logistic regression model for Internship Participation, demonstrating that Degree of Internship Participation was a stronger predictor of Job Attainment in Area of Specialization. This model correctly predicted 89.5% of the cases.

Table 15

Regression Coefficients for Degree of Internship Participation Predicting Job Attainment in Area of Specialization

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>Wald</th>
<th>df</th>
<th>p</th>
<th>Odds Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internship Participation</td>
<td>.955</td>
<td>9.078</td>
<td>1</td>
<td>.003</td>
<td>2.598</td>
</tr>
<tr>
<td>Constant</td>
<td>1.170</td>
<td>11.575</td>
<td>1</td>
<td>.001</td>
<td>3.223</td>
</tr>
</tbody>
</table>

Summary

This study sought to examine the relationship between various Academic and Co-Curricular variables with Full-Time Job Placement and Starting Salary upon graduation. The sample consisted of graduates from 2009-2012 from the college of business of a mid-sized, four-year public institution in the Midwestern United States. The researcher utilized data collected from the College of Business Administration Senior Survey, which is administered at each of the university’s three graduation ceremonies each academic year.

Three research questions guided the analyses. Table 13 summarizes the results from these three questions. A forward logistic regression was utilized to examine the first research question. Results indicated that Degree of Internship Participation, G.P.A., and Area of Specialization all predicted Full-Time Job Placement upon graduation. Degree of Internship Participation was the best predictor, followed by G.P.A. and Area of Specialization, respectively.
Table 16

Summary of Results by Research Question

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Results</th>
</tr>
</thead>
</table>
□ This model accurately predicted 67.2% of the cases.                                                                 |
| 1b. Which Academic and Co-Curricular (including Organization Participation) variables predict Full-Time Job Placement upon graduation? | □ Organization Participation did not significantly predict Full-Time Job Placement.                                                                                                                                                                                                                               |
□ A forward multiple regression resulted in a one-factor predictive model which revealed that Degree of Internship Participation was the only significant factor to predict Starting Salary.                                         |
| 2b. Does Starting Salary significantly differ by Area of Specialization?         | □ Starting Salary significantly differed by Area of Specialization.  
□ Supply Chain Management graduates reported the highest Starting Salary ($49,360). Management graduates reported the lowest starting salary ($38,029).                                                                                       |
| 3a. Does Internship Participation significantly predict Job Attainment in Area of Specialization? | □ Internship Participation had a negative statistically significant relationship with Job Attainment in Area of Specialization.  
□ This model accurately predicted 89.5% of the cases.                                                                                                                     |
| 3b. Does Degree of Internship Participation significantly predict Job Attainment in Area of Specialization? | □ Degree of Internship Participation significantly predicted Job Attainment in Area of Specialization.  
□ This model accurately predicted 89.5% of the cases.                                                                                                                      |

In an examination of the relationship between Academic and Co-Curricular factors and Starting Salary, a Pearson Correlation revealed statistically significant results for Degree of
Internship Participation, G.P.A., and Participation in College of Business Organizations. Results of a multiple regression, however, indicated that Degree of Internship Participation was the only significant factor of the resulting model.

Finally, a logistic regression revealed that Internship Participation did significantly factor into the resulting predictive model. Thus, the model suggests that Internship Participation does predict Job Attainment in one’s Area of Specialization. However, because cell sizes in this analysis were limited, this particular analysis lacks power (Tabachnick & Fidell, 2007).

Chapter 5 provides an opportunity for further analysis of these results, including conclusions drawn from the outcomes of the study. Additionally, both practical and policy recommendations will be made. Finally, recommendations will be made for future research.
CHAPTER V. DISCUSSION AND CONCLUSIONS

College graduates entering today’s volatile job market are perhaps facing greater challenges than ever before. With the number of unemployed bachelor’s degree holders higher than it has been in recent years (National Center for Education Statistics, 2010), college graduates face stiff competition in their efforts to obtain gainful employment. Exacerbating this issue is the fact that one’s first position post-graduation significantly impacts future earning potential and promotions (Rosenbaum, 1979; Steffy et al., 1989). Given these realities, it is imperative that students approaching graduation are cognizant of the importance of the effort that they put forth and the image that they project as they navigate the choppy waters of searching for their first professional role.

The purpose of this study was to examine the Academic and Co-Curricular factors that best predict Full-Time Job Placement and Starting Salary upon graduation for college of business students. The population for this study was college of business graduating seniors from a four-year, public research institution in the Midwestern United States. Data was collected from seniors participating in the graduation ceremonies from the academic years 2009-2012. The instrument utilized was the College of Business Administration Senior Survey, which measured the student college experience as well as future plans post-graduation.

Factors examined for the purpose of this study included both Academic and Co-Curricular variables. Academic variables were defined as those specifically relating to the student’s academic experience, and included Area of Specialization (student major) and G.P.A. Co-Curricular variables were defined as those experiences that took place during one’s college career but outside of the classroom, and included Degree of Internship Participation; Internship Participation; Use of Career Center; Participation in College of Business Organizations,
University Organizations, and Community Organizations; and Organizational Participation.

Degree of Internship Participation and Internship Participation were utilized to examine if impact upon the respective dependent variables differed depending upon if one participated in one internship versus multiple internships. Degree of Internship Participation measured the number of internships in which one participated, while Internship Participation simply measured if one participated in an internship or not. Similarly, there was a small differentiation between Participation in College of Business Organizations, University Organizations, and Community Organizations and Organizational Participation. Organizational Participation measured the sum of one’s participation in each of the three organizations, while the other three variables measured experience within those organizations individually. Three research questions guided the examination of these variables’ relationships with Full-Time Job Placement and Starting Salary.

**Discussion**

The environmental context in which this study took place is notable. Part of this study took place during an economic recession, thereby undoubtedly impacting job placement numbers. The U.S. Bureau of Labor Statistics (2012) indicated that the recession began in 2007 and officially ended in 2009. To date, however, many of the economic factors considered in determining recession status have yet to return to pre-recession status (U.S. Bureau of Labor Statistics, 2012). Unemployment rates represent one of the most widely-recognized statistics in determining recession status (U.S. Bureau of Labor Statistics, 2012). For 30 months prior to when the recession started, the unemployment rate was at or below 5.0% nationally. During the height of the recession, the national unemployment rate peaked at 10.0% (U.S. Bureau of Labor Statistics, 2012). The U.S. Bureau of Labor Statistics (2012) did not specifically examine unemployment rates for recent college graduates. Statistics did demonstrate, however, that
unemployment rates for young adults, defined as individuals born in 1980-1981, did significantly increase during the recession. The unemployment rate for young women peaked at 27% during the recession, while young men had a peak unemployment rate of 18% (U.S. Bureau of Labor Statistics, 2012).

The percentage of students seeking employment who were able to secure Full-Time Job Placement upon graduation did significantly differ by year. Graduates from 2009-2010 fared the worst, with only 29.4% of participants in the job market reporting having secured a full-time job upon graduation. Graduates from 2010-2011 had the highest percentage of Full-Time Job Placement of the years included in the study with 45.4% reporting having secured full-time employment.

Directly comparing these to national job placement numbers is difficult as there have been differences in the timing of data collection as well as in the way that the population of college graduates has been operationalized for various studies. The National Association of Colleges and Employers’ 2010 Student Survey, for instance, reported that 24.4% of seniors graduating that year had secured a job at the time of the study (NACE, 2010), which is comparable to the 29.4% reported here. However, there are significant discrepancies between the NACE survey and this study in terms of the percentages of graduates reporting full-time job placement for 2012. While 25.5% of the 2012 NACE survey participants reported having obtained full-time employment, our study reported a significantly higher percentage of 40.2%. Other studies examine employment rates for college degree holders. In 2011, a study done by the Center for Labor Market Statistics reported that 54% of college graduates under the age of 25 were either unemployed or employed in roles that did not require a degree (Sandoval, 2012).
Research Question 1a

Which Academic and Co-Curricular variables best predict Full-Time Job Placement upon graduation?

A forward binomial logistic regression resulted in a three-factor model that best predicted Full-Time Job Placement upon graduation. Degree of Internship Participation held the greatest statistical significance in the logistic regression model, followed by G.P.A., and then by Area of Specialization.

There is not accordance in the existing body of literature as to what factors best predict job placement for college graduates. Comparisons to this study are difficult as most existing studies did not compare the breadth of variables considered herein. While there are numerous studies that have examined both Academic and Co-Curricular variables as defined in this study (Chia, 2005; Fang et al., 2005; Gabris & Mitchell, 1989; Gault et al., 2000; Lim et al., 2008; Richards, 1984), all but one lack the inclusiveness of the variables explored here. Only Sagen et al. (2000) examined a similar type and number of variables, thus providing the best source for a direct comparison. Nonetheless, by considering the variables individually, comparisons to the existing body of literature possible.

The results of this study indicated that Degree of Internship Participation was the variable of greatest statistical importance in the logistic regression model. Existing literature has substantiated this relationship, demonstrating a significant relationship between participation in such experiences and securing employment (Fang et al., 2005; Knouse et al., 1999; Sagen et al., 2000). These findings have not, however, been wholly consistent, as at least one study failed to find a statistical relationship between these two variables (Richards, 1984).
In this study, it is of note that Degree of Internship Participation was found to be the greatest factor of significance predicting Full-Time Job Placement. In other words, the findings rendered indicate that the more internships one participates in, the greater the likelihood that one will secure Full-Time Job Placement upon graduation. This finding could be explained by the statistics indicating that those participating in internship(s) are highly likely to receive a full-time job offer from their employer. According to the NACE (2011), responding organizations hired their interns full-time 58% of the time. A Northeastern University statistic revealed an even higher conversion rate, indicating that 80% of the students that participated in their required internship or co-op experience received full-time job offers from their employers (Fried, 2008). Relating that finding to explain this study, participating in an internship should increase the likelihood of obtaining Full-Time Job Placement as recruiting employers have indicated a high probability of extending job offers to those who have interned with them. Thus, if multiple internships have been conducted, this should increase the pool of employers who are highly likely to extend job offers. The findings of this study are consistent with that postulation, suggesting the possibility that perhaps it is truly participation in multiple internships that increase the likelihood of obtaining Full-Time Job Placement.

G.P.A. was the second variable that entered the regression model in this study. As was the case with Degree of Internship Participation, existing studies have reported a relationship between G.P.A. and job placement. Several studies have demonstrated that a higher G.P.A. is more likely to lead to job placement (Fang et al., 2005; Richard, 1984; Sagen et al., 2000). However, other studies have had contradictory findings. In several cases, researchers were unable to demonstrate any significant relationship between G.P.A. and job placement (Chia, 2005; Gabis & Mitchell, 1989; Lim et al., 2008).
It is possible in this study that G.P.A. actually served as more of a recruiter requirement than a true independent predictor of job placement. While further research would need to be conducted to substantiate this explanation, the possibility exists that G.P.A. was found to be significant in conjunction with Degree of Internship Participation simply because it was a minimum requirement to be considered for the jobs for which the recruiters were interviewing. This was the case in a study by Chia (2005), who found that G.P.A. was a significant predictor of initial interviews, but not with job placement.

The final variable that entered the regression model in this study as a predictor of Full-Time Job Placement was Area of Specialization. Although the specific student majors previously explored have differed in each study, the relationship to job placement has been established (Lim et al., 2008; Sagen et al., 2000). Lim et al. (2008), for instance, found that accounting majors had better employment outcomes than did any other major in a study of graduates from a Malaysian public university. In a study that employed a more complex classification system, Sagen et al. (2000) found that college graduates from “specialized-hard” fields such as engineering and nursing had the most successful employment outcomes. Thus, although there has been some precedence set in terms of the relationship between field of study and job placement, there is little accord as to which majors prove most advantageous.

**Research Question 1b**

Which Academic and Co-Curricular (including Organization Participation) variables predict Full-Time Job Placement upon graduation?

The Organization Participation variable represented a sum of participants’ experience in College of Business, University, and Community Organizations. A logistic regression was conducted utilizing the same Academic and Co-Curricular variables for research question 1a
aside from replacing Participation in College of Business Organizations, Participation in University Organizations, and Participation in Community Organizations with the sum Organization Participation variable. The same three-factor predictive model resulted, indicating that Organization Participation did not predict Full-Time Job Placement.

There have been no known studies to examine these particular organizational participation characteristics. Some studies have, however, examined the impact of extra-curricular activity participation on various employment outcomes. They have rendered conflicting results. Tchibozo (2007) found that employment outcomes did significantly differ by extra-curricular activity participation. Similarly, recruiters have been found to perceive extra-curricular activity participation favorably. Cole et al. (2007) found that students who had high extra-curricular activity participation were rated as highly employable by recruiters. However, not all studies have found extra-curricular activity to positively impact employment outcomes. Chia (2005), for instance, found that job placement was not related to extra-curricular participation.

In this study, the Organization Participation variable measured the degree of one’s participation, utilizing interval measurements that ranged from none to a great deal of participation. The variable did not, however, measure the nature of the participation. At least one previous study has demonstrated that the nature of the organizational participation can impact various employment outcomes (Tchibozo, 2007). The possibility exists in this study that the findings are mirroring this previously-demonstrated phenomenon. Tchibozo (2007) found that those who participated in extra-curricular activities at a leadership level had different employment outcomes than those who did not. Perhaps, in this study, should the variable have
been designed to measure leadership experience with these organizations, it may have been shown to predict Full-Time Job Placement.

Although comparisons to the existing body of research for the first research question are useful, it is of note that only one of the aforementioned studies took a similar approach to this one. Only Sagen et al. (2000) examined a similar breadth of variables and employed a comparable data analyses approach. In the Sagen et al. (2000) study, logistic regression was utilized with a sample of 1,012 recent graduates of any major to examine which variables best predicted employment. Variables considered included participation in advanced skills courses, cooperative education, courses taken within and outside of one’s major, internship, mentorships, work experiences, student organizations, volunteer work, field of study, ACT scores, G.P.A., and gender. Results of Sagen’s (2000) logistic regression indicated that internships, work experience, participation in student organizations, and field of study all had significant interactions with employment outcomes.

In comparing Sagen et al.’s (2000) results to this similarly-designed study, there are several items of note. While some of the findings mirrored one another, there were others that conflicted. As was the case in Sagen et al. (2000), a significant relationship was identified between internship participation and field of study with job placement. However, the reported relationship between G.P.A. and job placement was not mirrored by Sagen et al. (2000). As a final comparative note, Sagen et al. (2000) found a significant relationship between participation in student organizations and job placement. That finding was not duplicated in this study.

**Research Question 2a**

Do Academic and/or Co-Curricular variables significantly predict Starting Salary?
Findings of a Pearson Correlation revealed a significant relationship between Degree of Internship Participation, G.P.A., and Participation in College of Business Organizations and Starting Salary. A forward multiple regression resulted in a one-factor predictive model, which indicated that only Degree of Internship Participation significantly predicted Starting Salary. As was the case with the ability to predict Full-Time Job Placement, Degree of Internship Participation was again a critical factor.

The importance of Degree of Internship Participation as a predictor of Starting Salary is notable. One possible explanation is that employers may see those who have participated in multiple internships as having developed more advanced skill sets than the average entry-level graduate. Studies have demonstrated that those who have participated in internships require less training and have fewer adjustment issues upon being hired full-time (Collins, 2002; Pianko, 1996). If the skill sets of those with multiple internships are perceived to have greater depth than graduates without these experiences, employers may reason that it is worthwhile to pay more in order to obtain a worker who may need less initial training (Gault et al., 2000). Should these perceptions expand to the belief that graduates with multiple internships may create a quicker and more robust return-on-investment, the finding that they receive a higher Starting Salary is not surprising.

Supporting the findings in this study, the relationship between internship participation and starting salary has been well-established (Fuller & Schoenberger, 1991; Gault et al., 2000; Godofsky et al., 2011; Sandvig et al., 2005; Taylor, 1988). The ability of G.P.A. to predict starting salary has been more tenuous in the literature. Several studies have found a significant relationship between G.P.A. and starting salary (Fuller & Schoenberger, 1991; Jones & Jackson, 1990; Rumberger & Thomas, 1993; Sandvig et al., 2005). This relationship, however, has not
been wholly consistent. Gault et al. (2000), for instance, did not find a significant relationship between these two variables.

Interestingly, the Pearson Correlation resulted in a significant relationship between Participation in College of Business Organizations and Starting Salary. A similar finding was not able to be located in the existing body of literature. The fact that this variable did not enter into the multiple regression model, however, indicates that perhaps the relationship is not incredibly strong. Additional research should be done to further explore this potential interaction.

**Research Question 2b**

Does Starting Salary significantly differ by Area of Specialization?

A One-Way ANOVA revealed that there were significant differences in Starting Salary based upon Area of Specialization. Participants in the Supply Chain Management Specialization reported the highest starting salary, while those in the Accounting/ Management Information Systems Specialization reported the second highest starting salaries. The lowest average Starting Salary was reported by those in the Management Specialization, which was $11,332 less on average than graduates from Supply Chain Management.

At the particular institution under study, the Supply Chain Management program has long been recognized as a premier program, and has been ranked nationally (Institutional website, n.d.). Graduates in this program have been in high-demand, and in this study exhibited the highest Full-Time Job Placement rates. Studies have also demonstrated that the type of field can make a difference. Sagen et al. (1999) found that those in specialized-hard fields such as engineering and nursing had the most successful early employment outcomes. Of the fields of study examined herein, Supply Chain Management is arguably the most specialized. Thus, there
is a possibility that Supply Chain Management majors are enjoying higher Starting Salaries partially due to the specialized nature of the field.

Direct comparisons on the impact of Starting Salary based upon Area of Specialization to existing literature are difficult due to the subjective and differing nature of how student major has been categorized in other studies. What can be said, however, is that differences in starting salary based upon field of study have been demonstrated by various researchers (Fuller & Schoenberger, 1991; Hamermesh & Donald, 2008; Rumberger & Thomas, 1993). As has been the case with other variables discussed herein, however, these findings have not been unanimous. Gault et al. (2000), for instance, did not find a statistical difference in starting salary based upon field of study.

**Research Question 3a**

Does Internship Participation significantly predict Job Attainment in Area of Specialization?

The results of a one-factor logistic regression revealed a significant relationship between Internship Participation and Job Attainment in Area of Specialization. More specifically, Internship Participation, which represented whether or not a student participated in an internship, was negatively associated with obtaining a job in one’s Area of Specialization. The strength of this logistic regression model, however, was quite low. This result will be further discussed with Research Question 3b.

**Research Question 3b**

Does Degree of Internship Participation significantly predict Job Attainment in Area of Specialization?

The logistic regression model revealed a significant positive relationship between Degree of Internship Participation and Job Attainment in Area of Specialization. In other words, the
more internships in which one participated, the greater the likelihood of obtaining a job in one’s Area of Specialization.

The findings of the third research question necessitate further explanation. Results indicated that participation in one internship alone was insufficient for obtaining a job in one’s Area of Specialization. In fact, a negative relationship resulted, albeit within a weak logistic regression model. However, a much stronger model resulted for Degree of Internship Participation as a predictor of Job Attainment in Area of Specialization. As has been demonstrated in existing research, employers often extend job offers to those who participated in internship(s) with their organization (Fried, 2008; NACE, 2011). Should this in fact be true for the participants in this study, students who participated in multiple internships would have been more likely to have multiple job offers. Given that internships typically are related to a student’s field of study (NACE, n.d.), there is a strong likelihood that they will ultimately receive a greater number of job offers than those who participated in fewer internships.

Research examining the relationship between internship participation and job attainment within one’s field of study is sparse. In fact, only one study was identified that had examined the relationship between these particular variables. Callanan and Benzing (2004) found that participation in internship(s) predicted finding a job related to one’s area of study. Given the lack of examination of these variables, future research is needed to further substantiate this relationship.

Conclusions

In considering the results from the statistical analyses of the research questions, several conclusions can be drawn that warrant deeper discussion. First is that the importance of internship participation within one’s undergraduate experience cannot be overstated.
Participating in multiple internships significantly increased the likelihood of Full-Time Job Placement and significantly predicted Starting Salary. In comparing the two regression models that predict Full-Time Job Placement and Starting Salary respectively, Degree of Internship Participation was the only variable to be included in both models. The relationships between internship participation and job placement (Fang et al., 2005; Knouse et al., 1999; Sagen et al., 2000) and internship participation and starting salary (Fuller & Schoenberger, 1991; Gault et al., 2000; Godofsky et al., 2011; Sandvig et al., 2005; Taylor, 1988) have been previously-established. However, the existing research referenced herein has not emphasized Degree of Internship Participation as the primary variable that predicts both of these two critical measures of employment outcomes.

The results of this study suggest that, even more than academic performance indicators such as G.P.A., employers value outside of the classroom experiential learning. The importance of internship experience reported here is consistent with what prospective employers report. Recruiters have reported the desire to hire graduates who have internship experience over those who do not in several instances (Bennett et al., 2008; Gault et al. 2010; Taylor, 1988). The results of this study indicate that students who are looking for a competitive edge in the hiring process should concentrate their efforts on securing and completing a minimum of one internship experience during their undergraduate tenure.

What is particularly interesting about the results of this study is the important distinction revealed regarding the differential impact of Internship Participation and Degree of Internship Participation. Degree of Internship Participation held significant distinction in its ability to predict Full-Time Job Placement, Starting Salary, and Job Attainment in Area of Specialization. Specific to the variables’ impact upon Job Attainment in Area of Specialization, an important
distinction was demonstrated. Internship Participation had a statistically significant negative impact upon Job Attainment in Area of Specialization, while Degree of Internship Participation resulted in a statistically significant positive relationship with that variable. What this indicates is that participation in one internship alone was insufficient in predicting Full-Time Job Attainment in Area of Specialization. Multiple internships were required to positively impact Full-Time Job Placement in Area of Specialization.

While additional research needs to be done to further substantiate this particular finding, it does have interesting implications. Previous research has demonstrated that employers have a strong likelihood of extending job offers to their interns upon successful completion of the work assignment (Fried, 2008; NACE, 2011). Given that most students intern within their field of study (NACE, n.d.), the likelihood for obtaining a Job Placement in one’s Area of Specialization should increase for every internship that one completes. This was the case for those who completed multiple internships in this study. While this study does not measure number of job offers, there is a strong likelihood that those who had completed multiple internships received multiple job offers, and thus chose the offer that had a higher starting salary and was in the area for which they had previously demonstrated interest by choosing it as their major.

Fully understanding the significant impact of Degree of Internship Participation upon Full-Time Job Placement and Starting Salary necessitates closer consideration. More specifically, the question arises as to if Degree of Internship Participation is the key variable directly impacting Full-Time Job Placement and higher Starting Salary, or if there are other mediating variables at play. For instance, those in the Supply Chain Management Area of Specialization received the highest Starting Salary and rates of Full-Time Job Placement. As Supply Chain Management is one of the areas of study that requires a minimum G.P.A. and other
performance requirements to be accepted into the major, the possibility exists that the type of student who pursues this nationally-ranked academic program is perhaps more self-motivated to complete multiple internships and position themselves for better employment outcomes upon graduation.

Given the available variables in this study, it is not possible to test any of the potential character-based predictors of the various employment outcomes considered herein. However, significant differences in Degree of Internship Participation by Area of Specialization can be examined to determine if in fact Supply Chain Management students did participate in more internships than did other students. In order to test this potential interaction, frequencies and a one-way ANOVA were analyzed to examine differences in Degree of Internship Participation by Area of Specialization. Results of a one-way ANOVA ($F(6, 436) = 6.602, p = .000$) revealed that there were significant differences in Degree of Internship Participation based upon Area of Specialization (see Table 14). Scheffé post hoc results indicated that Supply Chain Management graduates (1.49) had significantly higher Degree of Internship Participation than Accounting and Management Information Systems (.93), Economics (.65), Finance (.79), Management (.72), and General Business and Discontinued Majors (.63) graduates.

Although at the time of the study none of the Areas of Specialization required internships as part of their degree requirements, it is interesting that, in particular, Supply Chain Management graduates reported significantly higher Degree of Internship Participation than many of the other Areas of Specialization. While future research is needed to substantiate this possibility, there is the potential that individual characteristics such as self-motivation and determination may determine which students pursue which types of areas of study, which plays a
significant role in determining Degree of Internship Participation, which ultimately impacts Full-
Time Job Placement and Starting Salary.

Table 17

*Degree of Internship Participation by Area of Specialization (n = 443)*

<table>
<thead>
<tr>
<th>Area of Specialization</th>
<th>% Participation</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting and Management Information Systems</td>
<td>37.0 38.5 24.4</td>
<td>0.93</td>
<td>.891</td>
</tr>
<tr>
<td>Economics</td>
<td>60.9 17.4 21.7</td>
<td>0.65</td>
<td>.935</td>
</tr>
<tr>
<td>Finance</td>
<td>41.1 44.6 14.3</td>
<td>0.79</td>
<td>.825</td>
</tr>
<tr>
<td>Management</td>
<td>44.0 44.0 12.0</td>
<td>0.72</td>
<td>.792</td>
</tr>
<tr>
<td>Supply Chain Management</td>
<td>17.8 28.0 53.4</td>
<td>1.49</td>
<td>.964</td>
</tr>
<tr>
<td>Marketing</td>
<td>28.3 37.4 34.4</td>
<td>1.12</td>
<td>.895</td>
</tr>
<tr>
<td>General Business and Discontinued Majors</td>
<td>56.7 30.0 13.4</td>
<td>0.63</td>
<td>.890</td>
</tr>
<tr>
<td>Total</td>
<td>35.4 35.9 28.7</td>
<td>1.00</td>
<td>.972</td>
</tr>
</tbody>
</table>

In addition to the possibility that the type of student who pursues the Supply Chain Management Area of Specialization differs in terms of characteristics and performance, there is evidence that participation in this major presents stronger opportunities for employer engagement and internship obtainment. While there are many possible reasons for higher Degree of Internship Participation for Supply Chain Management graduates, reasons cited by those within the College of Business Administration ranged from the quality of the program to unique external relations programs with prospective employers (J. Hartley, personal communication, May 13, 2013). Specifically, the high national ranking of the Supply Chain Management specialization has contributed to the high level of engagement with recruiters who are interested in hiring interns and full-time employees from the program. Additionally, the program has developed a Supply Chain Management Institute, which strives to build collaborative relationships with outside organizations to promote excellence in the field.
(Institutional website, n.d.). The Supply Chain Management Institute provides distinctive opportunities for employers to interact with and recruit top talent from the program. The Institute hosts dinners for its members to network with students from its program the evening prior to spring and fall career fairs on campus and provides opportunities for its members to speak in classes and coordinate student talent for special projects within their organizations. This high level of engagement with outside organizations has created an environment of abundant internship opportunities, many of which have led to full-time job placement upon graduation (J. Hartley, personal communication, May 13, 2013).

A second significant conclusion is that academic factors do matter. As was previously discussed, both G.P.A. and Area of Specialization significantly predicted Full-Time Job Placement in this study. Additionally, Starting Salary significantly differed by Area of Specialization. It is possible that G.P.A. and Area of Specialization may be related to one another. In this study, Supply Chain Management and Accounting/MIS were the two Areas of Specialization that demonstrated the highest job placement rates. In the particular College of Business under study, these programs are unique in that they both have specific academic requirements for entry into their program. Along with prerequisites that are specific to each Area of Specialization, these two particular programs require a minimum G.P.A. for entry. Although this is not a completely exclusive requirement, many of the other Areas of Specialization do not hold minimum G.P.A. as a barrier to entry. Given this, it is quite possible that those with higher G.P.A.s are students within the particular Areas of Specialization that are associated with greater job placement rates in this study. Again, further research is needed to explain these relationships, but the conclusion can undoubtedly be drawn is that, as it relates to employment
outcomes post-graduation, the academic decisions that one makes and effort that one expends as an undergraduate student hold great importance.

One notable conclusion related to the academic variables is that what is perhaps the most specialized field of study examined resulted in the most positive employment outcomes. More specifically, participation in the Supply Chain Management major resulted in a significantly higher Full-Time Job Placement as well as the highest average Starting Salary among any field of study. Although additional research is needed to substantiate the specific findings rendered, the results here would suggest that choosing a more specialized field of study could perhaps be one way to steer oneself to more preferable post-graduate outcomes. At least one other study has rendered similar findings. Sagen et al. (2000) found that those who had majored in what were defined as “specialized-hard” fields such as nursing and engineering had the most positive initial employment outcomes. In fact, of the multiple academic and co-curricular variables that they examined, specialized-hard field of study was the strongest individual predictor of employment success.

What is also of significance related to the findings is the variables that were not found to be predictive of Full-Time Job Placement. Neither Use of Career Center nor Participation in College of Business, University, or Community Organizations was found to be predictors of successful employment outcomes in this study. No significant precedence exists for any of these variables as predictors of employment in the current literature, thus rendering comparisons difficult. However, explanatory conclusions will be drawn herein.

In this study, Use of Career Center was not found to predict Full-Time Job Placement, which is contrary to the scant literature that does address this issue (Garver et al., 2009; Hanover Research, 2012). Although one can only prognosticate regarding the reasons, it is possible that
the nature of the variable limited the ability to conduct an effective analysis of the relationship in this particular case. In this study, Use of Career Center was a dichotomous categorical variable. Participants simply had the option of indicating if they had or had not utilized the Career Center as part of their job search. The instrument did not allow for further specification as to the type of level of assistance utilized. Perhaps by measuring the degree to which students utilized the Career Center services, a more useful comparison may have been rendered.

For instance, Garver et al. (2009) conducted a study that resulted in a “Needs Segmentation” model regarding students’ expectations from career services utilization. Garver et al. (2009) found that most college of business students fell into the “placement” segment. Those within this segment were typically the heaviest users of career center services. Their highest needs identified were the quality and quantity of companies with which to interview. It is possible, in considering the Needs Segmentation model, that different findings may have resulted in this study should the Use of Career Center variable been more effectively operationalized. Future researchers would be well-served to better delineate the degree and type of Career Center resources utilized.

An additional potential explanation for Use of Career Center not significantly predicting Full-Time Job Placement could lie in the nature of the services provided. At the time of this study, the Career Center on this particular campus was fully centralized. As will be more fully discussed under Practical Recommendations, many recruiters perceive more effective employer relations to be rendered by career services that are decentralized in the college units, while institutional leaders believe that decentralized units provide greater student support (NACE, 2010). The possibility exists, then, that Use of Career Services was not rendered as a significant
predictor of Full-Time Job Placement in this study due to the ineffectiveness of the services rendered under the centralized model that was operating at the time of the study.

Finally, it is interesting that Participation in College of Business, University, and Community Organizations were not found to predict Full-Time Job Placement. Evidence of these specific variables having been studied was not found. There is, however, some precedence of extra-curricular activities predicting job placement (Tchibozo, 2007). While this level of detailed analysis was not possible given the nature of the variables, it is possible that participation in such activities at a leadership level may have rendered different results. Again, additional research needs to be conducted to further explore the nature of these relationships.

The overarching conclusion rendered by the findings is that students do have the ability to impact their eventual employment outcomes through the efforts that they make as undergraduates. The study demonstrates that Academic and Co-Curricular factors do have the ability to predict Full-Time Job Placement and Starting Salary. Degree of Internship Participation, G.P.A., and Area of Specialization appear to hold particular significance.

Although more specific recommendations for higher education administrators will be discussed below, the broad implication for college students is that perhaps a more robust internal locus of control is warranted. Those with an internal locus of control generally believe that their behaviors create their circumstances, while those with an external locus of control believe themselves to be controlled by environmental or causal forces (Darity, Jr., 2008). Locus of control has also been linked to differences in achievement. Those with an external locus of control have been shown to perform poorer in school than those with an internal locus of control, believing that hard work and significant effort are wasted endeavors as outside forces will ultimately control one’s outcomes (Darity, Jr., 2008).
The results of this study suggest that the effort that one expends in terms of internship participation and academic performance can in fact directly impact the ability to obtain full-time employment upon graduation. Thus, instilling an internal locus of control with college students can be advantageous in helping to lead them to more successful outcomes upon graduation. Recommendations as to how higher education leaders can help to assist in this shift in perspective will be outlined below.

**Recommendations**

As the results of this study have implications for students, higher education administrators and faculty, and policymakers alike, both practical and policy recommendations are outlined herein. Given the volatility of the nation’s economic state and the resulting turbulence in the job market, both sets of recommendations are timely as our nation considers how to best leverage our talented human capital to guide the country into calmer waters.

**Practical Recommendations**

The findings of this study render both broad and specific practical recommendations. The overarching practical recommendation is for higher education leadership to enact the programmatic support necessary to promote student development in critical Academic and Co-Curricular areas. More specifically, because internship participation was found to hold such great significance, it is critical that universities provide their students with the programmatic support for efficient internship attainment. One possibility for doing so is through the placement of personnel and programmatic services to coordinate internship attainment within each college academic unit. Doing so could serve a variety of functions, but the overarching concept would be to bring the resources critical for undergraduate and post-graduate success closer to the students who should be utilizing them.
Placement of internship coordination personnel within the college would allow for better management of experiential learning opportunities. Coordination of internship opportunities is most often centralized in campus-wide career centers (NACE, 2010). The Use of Career Center variable in this study did not allow for significant in-depth analysis of the effectiveness of the various services students utilized. However, the possibility exists that Use of Career Center was not found to be a significant predictor of Full-Time Job Placement because coordination of internship opportunities was ineffective. If centralized career services are not able to effectively coordinate experiential learning, less students are able to take advantage of internship opportunities that have been demonstrated to be critical to Full-Time Job Placement.

Instead of fully centralized career services working as generalists to serve the entire student body, satellite centers in the academic units may have the potential to more effectively address the specific needs of their particular students, employing both internal and external internship coordinators. Internal coordinators could be focused on serving the students’ needs, including assisting in the identification of the types of experiences to target, helping with resume preparation, and developing interviewing skills. The external faction of the center would primarily be responsible for interfacing with and meeting the various needs of the internship employers who may hire students at a respective institution. Ideally, this would include personnel to seek out and line up internships and co-ops by identifying the qualifications sought by each employer, coordinating on-campus internship interviews, and providing other opportunities for internship employers to interact with students.

Some precedence for aspects of this plan already exists. The National Association for College and Employers (NACE) Career Services Benchmark Survey (2010) indicates that while 87.5% of the institutions surveyed described themselves as having primarily centralized Career
Services operations, 54% had at least some form of decentralization in the academic units. Those that have these hybrid models often centralize most aspects of information technology such as job postings, but decentralize other aspects of student assistance and employer relations (NACE, 2010).

From the perspective of both the employer and institutional leaders, both centralization and decentralization of Career Services have their unique advantages. From the employers’ perspective, centralized Career Services provide access to a greater variety of students, while decentralized units foster increased faculty interaction and a higher level of individualized attention to the organization’s recruiting needs (NACE, 2010). Institutional leaders perceive centralized offices to foster greater cohesion among academic units, while decentralized units are believed to provide greater student support (NACE, 2010). Ultimately, although each institution must decide the best organizational structure for their specific needs, the perceptions revealed through the NACE (2010) survey indicate that perhaps both students and employers are better served through at least some degree of decentralization. The recommendation here is that some degree of decentralization be enacted in order to provide more effective coordination of the experiential learning opportunities identified as important in this study. This model would help to foster the fulfillment of two more specific recommendations.

First, as competition for jobs remains stiff in a tenuous economy, it is recommended that colleges of businesses require a minimum of two internships or organized experiential learning opportunity for each student. In this study, Degree of Internship Experience was found to be the sole variable significantly predicting both Full-Time Job Placement and Starting Salary. Having multiple internships was found to positively impact Full-Time Job Placement and Starting Salary. As has been discussed, participation in a single internship was insufficient for obtaining
Full-Time Job Placement in one’s Area of Specialization. In fact, participation in a single internship actually resulted in a statistically significant negative relationship, albeit as part of a weak regression model. Given the importance of internships inferred by this study and the multiple others cited herein, it is evident that students navigating the job search without such experience on their resumes may be at a distinct disadvantage. As such, it is important for higher education institutions to encourage and foster these experiential learning opportunities.

Requiring two internship experiences as a graduation requirement would admittedly demand significant coordination on the part of administrative and faculty leadership. As opposed to programs encouraging experiential learning where the vast majority of the onus of responsibility lies with the student to secure commitment on the part of the employer, those requiring internships in turn share some of the burden of ensuring that each student is placed. Although this admittedly sounds challenging, evidence exists that it can be done. In 2008, more than 125 institutions nationwide indicated that they were requiring internship or co-op experience for all students within some of their programs, with more than a dozen requiring this experience of all students (Fried, 2008). Although the approaches for coordinating these experiential learning opportunities differ, the benefits are pervasive. In fact, one of the programs surveyed revealed that up to 80% of interns were offered full-time placement by their respective employers (Fried, 2008).

Given the significance of both G.P.A. and Area of Specialization revealed in this study, it is imperative that students receive guidance and support in making informed decisions as to field of study. Additionally, as students navigate their coursework, it is critical that they have ready access to support services and resources to foster better academic performance. As such, the second specific recommendation is that each and every student be required to interface with
college personnel that provide academic advising and experiential learning coordination within
the respective academic unit beginning their freshman year. Doing so could foster more
strategic, intentional decisions on the part of students should they have the appropriate academic
and experiential learning support.

The model just described is an example of how an institution could effectively promote
Academic and Co-Curricular student experiences while simultaneously providing proficient
service for external recruiters. However, it is ultimately the responsibility of each institution to
design programming to fit their respective needs. While it is undoubtedly the case that many of
the aforementioned functions and positions already exist at most institutions, strategically
aligning them in the academic units could help to more effectively coordinate the resources
necessary to both help students succeed within the educational setting and to obtain job
placement post-graduation.

**Policy Recommendations**

College graduate job placement statistics that are currently reported are wrought with
issues. Some institutions do not collect job placement data; while those who do, have highly
inconsistent methodologies. For instance, more than 33% of institutions that collected job
placement data in 2010 based their statistics on a response rate of less than half of their total
graduating population (Sandoval, 2012). Only one-third of institutions reporting in 2010 had
response rates of greater than 75% (Sandoval, 2012). Time of collection also varies. While
some institutions have a single collection point at the time of commencement, others track job
placement several months after graduation (Sandoval, 2012). Issues also exist with reporting.
Many institutions choose to report the year of the highest number of job placements as current
(Sandoval, 2012), thereby confounding the reader’s ability to decipher what is reported as factual information.

From a policy perspective, the primary recommendation stemming from these findings is that there should be a national mandate for consistent collection and reporting of job placement statistics for all higher education institutions. Although this would admittedly require a significant collective effort for both the legislatures and institutional leadership, it is perceived that in the future job placement information will be demanded by the parents and students considering postsecondary options (McGrath, 2002). Although an argument as to higher education’s role of educating students versus successfully launching them into the workforce continues to persist, the reality of consumer demands will ultimately require that this information be made available in order to remain competitive. Thus, legislative oversight is recommended to ensure that the methods by which the data are collected and disseminated are consistent, thereby rendering useful, comparable statistics.

The legislative foundation for this consistent reporting already exists. The Higher Education Opportunity Act of 2008 (HEOA) provides disclosure and reporting requirements for information that postsecondary institutions are obligated to make available to the public (National Postsecondary Education Cooperative, 2009). The HEOA is comprehensive in its discussion of the type of information institutions are required to disclose, but part of what is covered is mandates surrounding the reporting of job placement rates. As part of its oversight, the HEOA requires that institutions must report calculated placement rates for their graduates, as well as any methodology and timeframes associated them (National Postsecondary Education Cooperative, 2009). Additionally, the HEOA mandates that any numbers that are reported are
the most recent ones collected and that rates must be accompanied by information to substantiate the truthfulness of the claims (National Postsecondary Education Cooperative, 2009).

While the HEOA does make a significant contribution in helping to ensure the validity of reported graduate job placement rates, interestingly, it does not require that institutions collect such information. Rather, it requires that any data collected adhere to the aforementioned reporting requirements. Should an institution choose not to calculate placement rates, it is outside of the HEOA’s purview.

Thus, the policy recommendation is for a nationwide mandate requiring all institutions of higher education to collect and report job placement rates for their graduates. As the HEOA already provides oversight of any data reported, it would not be a significant increase in their scope to determine and enforce methods of consistent data collection and reporting for job placement rates. An additional possibility for oversight could lie within the accrediting bodies for the respective academic areas. For instance, The Association to Advance Collegiate Schools of Business (AACSB), a primary accrediting body for schools of business, has a robust body of research, and could include job placement information in their scope of data collection (AACSB, 2013). Additional oversight could lie with these accreditation bodies. Although this requirement would undoubtedly be more difficult to enforce at institutions not already receiving state education funding, it would seem a worthwhile endeavor to undertake if the ultimate result would be more qualified graduates being placed at positions commensurate with their degrees in the workforce. As one’s first role after graduation significantly impacts subsequent earnings potential (Steffy et al., 1989), ultimately, providing this information to prospective students and subsequently allowing them to strategically choose institutions that are most likely to provide
effective job placement upon graduation could have the longer term effect of bolstering the economy, as well.

**Recommendations for Future Research**

This study made several important contributions to the existing body of literature on graduate employment outcomes. First, this study examined a greater breadth of independent and dependent variables than most of the existing literature and employed the use of logistic and multiple regressions to enable examination of multiple Academic and Co-Curricular variables. Although there are many studies that have explored varying combinations of some of the variables examined here, it is perceived that this study adds to existing research by predicting both Full-Time Job Placement and Starting Salary. Furthermore, this study utilized a sample of three years of graduates. Doing so is believed to improve upon most of the existing studies, which were single-collection cross-sectional designs. It is the hope that the results of this study are less susceptible to an extraneous variable that may be a product of the time at which the data was collected. This expanded scope of study provides a more robust foundation upon which to build programming to assist graduating students with their initial employment endeavors.

Having said this, there are several recommendations as to how future studies could further contribute to this growing body of research. First, it is recommended that the method and timing of the distribution of the survey instrument be evaluated and adjusted. While distributing the survey at the graduation ceremonies did render high completion rates of the students who attended, nearly half of the total population of graduating seniors was not captured through this method. Collecting data in senior-level College of Business Administration courses may allow for higher completion rates from the total population.
Secondly, the sample was fairly homogenous in nature. Future studies could substantiate the results found herein by utilizing more diverse samples. More specifically, as this study’s sample was fairly homogenous in terms of ethnicity, future researchers may want to examine more culturally-diverse samples to determine if similar findings are rendered.

Academic diversity is also warranted. This study only examined graduating seniors from the College of Business Administration. Because prospective employers may hold differing perceptions of import depending upon the field, similar studies should be employed with various academic units. Employers recruiting students from colleges of education, for example, may value different Academic and Co-Curricular variables entirely. The reliability of these factors’ ability to predict Full-Time Job Placement and Starting Salary would be positively impacted by replicating this study with other academic units.

A final opportunity to diversify the approach is from an institutional standpoint. This study took place at a four-year, public institution in the Midwestern United States. It would be interesting to determine if the findings herein could be replicated at other types of institutions. Therefore, replication of this study at institutions that are geographically dispersed and diverse in nature could make meaningful contributions to the understanding of how graduates successfully navigate their initial employment endeavors.

An additional opportunity to build upon this foundation in future research is to expand the variables under study. Although this study examined multiple different Academic and Co-Curricular variables, because of the use of a secondary data source, the factors that could be explored were somewhat limited. As such, future studies could include other variables that are perhaps relevant but were not able to be examined here. Such variables could include, for
instance, undergraduate study abroad experiences, as well as part-time work experience. Both of these variables have garnered attention in the literature but were unable to be examined here.

Finally, although this study was conducted over the course of three academic years, it is difficult to determine if these findings would hold true over time. Thus, longer-term studies are recommended to determine if the same Academic and Co-Curricular factors predict Full-Time Job Placement and Starting Salary over time. Should the same factors endure changes in the economy and other environmental factors, the recommendations for faculty and administrative leadership made herein could arguably serve as a model of best practices as institutions of higher education help their graduates navigate an increasingly-competitive global job market.
REFERENCES


McGrath, G. L. (2002). The emergence of career services and their important role in working with employers. *New Directions for Student Services, 2002*(100), 69-84.


# 2011-2012 COLLEGE OF BUSINESS ADMINISTRATION (CBA) SENIOR SURVEY

Thank you for participating in the Graduating Senior Survey. Your individual responses will be kept confidential and only summaries of answers are used for reporting purposes.

## SECTION A

<table>
<thead>
<tr>
<th>Overall Evaluation of the College of Business Administration:</th>
<th>Excellent</th>
<th>Very Good</th>
<th>Good</th>
<th>Fair</th>
<th>Poor</th>
<th>Did Not Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>A3a. Quality of teaching</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>A3b. Quality of advising</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>A3c. CBA Classrooms or computer labs</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>A3d. Other CBA facilities (Hub, etc.)</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>A3e. Overall CBA experiences</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

## SECTIONS B-C

### B. Seek Employment

- Please indicate your current status:
  - □ B1. Accepted a position with (please specify)
  - • B2. Name of company ___________________________
  - • B3. Total annual salary ______________________
  - • B4. Other compensation _______________________
  - • B5. Is the job in your area of specialization? □ Yes □ No
  - • B6. Is your job □ Full time □ Part time?
  - • B7. How long were you actively job searching before accepting the current position? _________ weeks

- □ B8. Looking for employment
  - □ Full time □ Part time
  - • B9. How long have you been actively searching for a job? __________________ weeks

### C. Attend Graduate School

- □ C1. Please indicate the graduate degree program that you plan to pursue:
  - □ MBA
  - □ Master of Accountancy
  - □ Law School
  - □ Other (please specify) ___________________________

- □ C2. □ Full time □ Part time

Name of University: __________________

### C3. If your plans for the immediate future do not include full/part time employment or graduate education, please describe your plans

## SECTION D

<table>
<thead>
<tr>
<th>Participation</th>
<th>A Great Deal</th>
<th>Quite a Lot</th>
<th>Some</th>
<th>Little</th>
<th>Not at All</th>
</tr>
</thead>
<tbody>
<tr>
<td>D1. Student organizations in business</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>D2. Other BGSU student organizations</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>D3. Community or other organizations</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

Over – Please complete Page 2
SECTION E

E. If you could start your college education over, would you again choose....
   E1a. BGSU? □ Yes □ No If No, please specify University of choice ________________
   E1b. The College of Business? □ Yes □ No If No, please specify major of choice __________

F. If you could change one thing in the College of Business, what would it be?

G. What is the best advice you would give to an incoming College of Business freshman?

H. While a BGSU undergrad (including summers), how many Co-op or Internship opportunities did you receive?
   □ 0 □ 1 □ 2 □ More than 2 □ Did not apply

I. Which BGSU resources have you used in your job search or for application to graduate school?
   □ Department/Faculty Contacts □ Undergraduate Student Development
   □ Career Center □ Other (Describe) _______________________

J. How would you rate the quality of services provided by the BGSU Career Center?
   □ Excellent □ Very Good □ Good □ Fair □ Poor □ Did not use

K. What other assistance or services in the College or University would have been helpful to you?

Thank you for completing the senior survey. Your feedback is critical for the College to continuously improve the academic experience of its students. We hope you will provide the following information so that we can stay in touch with you as a Business alumnus (Your BGSU ID number is being requested so that we may collect demographic information to be used for comparative and summary purposes only).

As you probably know, the BGSU undergraduate business program has been ranked among the best in the United States by Business Week. This ranking is very important for all of us who are graduates of BGSU. Employers throughout the United States will know that a business degree from BGSU is among the best in the nation. In order for us to continue to be ranked, we will be conducting an additional survey of recent graduates. In about six months, you will receive an e-mail from me with a very brief survey. I hope you will take a few minutes to complete this survey.

Congratulations on the completion of your degree from BGSU. From all of the Faculty and Staff of the College, I wish you the very best for your future.

L. Cell Phone Number M. Permanent e-mail address (not bgsnet address) N. BGSU ID (for demographic information)