

USING INTERNSHIP AND EMPLOYMENT DATA TO EXPAND
MEASURES OF EFFECTIVENESS FOR A BUSINESS CAREER COURSE

A Dissertation
by
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Abstract

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This study explores the short- and long-term effects of a college level business career course. College career courses have been widely assessed for their effectiveness and positive impact on students. Researchers have investigated the impact career courses have on persistence to graduation, GPA, self-efficacy, confidence in career decision states, as well as the number of semesters taken to graduate. However, little analytic attention has been paid to the effect career courses might have on students' ability to secure an internship or a job at graduation. This retrospective causal-comparative study examines four years of archival employment data for business college graduates from 2015 to 2019, N=2,635. Logistic regression analyses were performed in order to determine if the completion of a career course was a predictor of internship attainment at Junior year and if a career course was a predictor of employment at graduation. Annual rates of employment at graduation are also reported as the business career course was phased into the curriculum.

Suggestions for future research and practice in career services delivery are included.

In conclusion, the positive, recursive impact employment data may provide to the design of career courses is also discussed.

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Table of Contents

Abstract.....	iv
Acknowledgments.....	vi
Chapter One: Introduction	1
Context for the Issue	2
Statement of the Problem.....	4
Purpose of the Study	5
Research Questions.....	5
Significance of the Study	6
Definition of Terms.....	7
Assumptions and Limitations	8
Conclusion	9
Chapter Two: Review of Literature	10
Review of Career Course Literature	10
Studies of Career Course Prevalence.....	12
Studies of Career Course Significance	14
Review of Business Career Course Literature	15
Focus on Transition to Employment.....	16
Efficiency of Career Courses.....	18
Inherent Value of Career Courses.....	19
Conceptual Framework.....	20
Outputs.....	21
Outcomes	23
Chapter Three: Methodology	25
Research Design.....	25
Setting and Sample	26
Figure 1 Research Design Map.....	29
Research Questions and Null Hypotheses	30

Null Hypothesis	30
Research Question One.....	30
Research Question Two	32
Research Question Three	32
Research Question Four	33
Research Question Five	34
Data Collection	35
Data Organization and Cleaning.....	37
Summary of Data Analysis	38
Assumptions and Limitations	39
Chapter Four: Research Findings.....	41
Sophomore Year Outputs.....	41
Research Question One.....	41
Outcomes	43
Junior Year Outcome One: Internship Attainment	43
Research Question Two.....	43
Senior Year Outcome Two: Job Attainment.....	44
Research Question Three.....	44
Research Question Four.....	46
Research Question Five.....	47
Demographic Analysis.....	50
Chapter Five: Discussion, Suggestions for Future Research, and Implications for Career Services Professionals.....	53
Summary of Findings.....	53
Interpretations	55
Research Question One.....	55
Research Question Two	59
Research Question Three	61
Research Question Four.....	62
Research Question Five	63
Recommendations for Educational Leadership	64
Reinforce Career Development for Juniors	64
Refine Career Development for Seniors	65
Career Development Across the Curriculum.....	65
Suggestions for Future Research	66

Conclusions and Implications for Career Development Professionals.....	68
From Data Reporting to Data Use.	71
Recursive Benefits of Employment Data.....	73
Multiplicity of Career Influences.....	74
References.....	77
Vita.....	84

Chapter One: Introduction

Career development and guidance has often been built into college curricula to address the challenges of transitioning to work or further education after graduation (Hartz & Parker, 2012). College career courses have been deployed as a systematic way of providing career education and preparation to large numbers of students for over a century (Maverick, 1926). A broad body of research into the effectiveness of college career courses has accompanied their development over the last one hundred years as more colleges find value in them (Hansen et al., 2017). This study seeks to add to the body of research concerning the effectiveness of college career courses by exploring internship and employment data.

In 2014, the College of Business at Appalachian State University implemented a non-credit bearing career course as a way to deliver career services to students en masse. The course was established as an admission requirement to the business college with a standardized curriculum used by all instructors. Therefore, students enrolled in the course were mostly at the sophomore level. Students admitted to the business college in 2014 and future years were required to take the newly established business career course.

At the conclusion of the course, students often reported that the course resources helped them secure jobs and/or internships. However, it is unclear with what frequency this is the case and how the course may or may not help them secure employment at graduation. This study will consider the frequency of job and internship attainment as an important step to understanding the impact of career courses. Furthermore, exploring internship and job attainment after students complete a career course is likely to reveal insights concerning the design of effective career courses.

The year 2015 saw the first class of business school graduates from Appalachian State University who had completed the business career course. For 2015 graduates and later, it is possible to know whether or not they had a job at graduation and if they had completed the business career course. This study will compare two student groups, graduates who took the business career course and graduates who did not. Students in either group may or may not have had a job at graduation, which can be determined from the analysis of archival employment data. This study will explore the relationships between these two groups in terms of their internship and employment rates.

Context for the Issue

Based on national surveys of postsecondary institutions, Reardon and Lenz (2018) estimated that approximately 36% of universities in the United States offer career courses. Many universities may be considering the impact career courses can have for their programs and for the lives of their students. Reardon and Lenz (2018) noted that a career course requires immense support. Due to the unique nature of career problems, individual work with students is often required. Without proper staffing, the demands of a career course can overwhelm instructors and lead to burnout (Reardon & Lenz, 2018). Therefore, the decision to implement a career course is one that requires careful consideration of necessary investment compared to the likely outcomes. Among potential outcomes, job attainment may be an important consideration for the financial well-being of graduates.

One desired impact of a career course is likely to be financial stability for college graduates. Findings from a Strada-Gallup alumni survey show that college graduates with good jobs (as defined by respondents) at graduation earn considerably higher salaries when compared to graduates who took two months to a year to secure a good job (Auter &

Busteed, 2018). Approximately 43% of graduates who secured a good job at graduation earned an annual salary of \$60,000+. Only 18% of graduates who took two months to a year to secure a good job were making an annual salary of \$60,000+. Not only did jobs obtained within a month of graduation have higher starting salaries, but the salaries of those jobs increased faster over time. Whereas students who were underemployed at graduation, stayed underemployed longer. These findings emphasize the importance of jobs students obtain upon graduation, “because it can set them on a career trajectory that is difficult to change” (Auter & Busteed, 2018, para. 7). A career course may help to change the career trajectories of students where changes after graduation would be difficult.

Career trajectories may be difficult to change after graduation due to the need to start paying back student loans. When student loan payments begin, available jobs may need to be considered even if it means being underemployed. A recent report (Federal Reserve System, 2020) indicates that over 45 million people carry student loan debt at a collective record high of 1.67 trillion dollars. These levels of national student debt suggest that many adults will acquire significant amounts of student debt as they earn college degrees.

In November of 2018, Summer and Student Debt Crisis published results of a national survey that revealed how student loan debt can cause stress and financial uncertainty for families after graduation. The national survey aggregated responses from 7,095 confirmed student loan borrowers who reported student loan debt prevented them from buying homes, starting families, and achieving their career goals (Summer & Student Debt Crisis, 2018). The limiting effects of student loan debt are widespread. As Cohen (2020) pointed out, “student loan borrowing has outpaced all consumer borrowing except home mortgages” (p. 29). Student loans have grown beyond many borrowers’ ability to pay them

back. High levels of debt are causing widespread financial issues and they often intensify economic inequality.

The negative life and career effects of student loan debt are often compounded for African American borrowers, making the student debt crisis an economic justice issue. African American students are more likely to need to borrow and more likely to need to borrow in higher amounts in order to pay for college (Federal Register, 2019). African American students often disproportionately suffer negative life and career effects of debilitating and life altering student loan debt. (Center for Responsible Lending, 2019) This issue invites interest in the possibility that every student might receive a form of career guidance and instruction to improve their chances of financial success.

Given the financial impact of a college graduate's first job, likely coupled with student loan debt, job attainment at graduation may require more attention than it has yet received. The potential for economic inequality adds another level of concern for educational leadership that seeks to address issues of economic justice. Job and internship attainment can serve as measurable outcomes that can be discussed in the context of these concerns. The decision to implement a college career course is a complex issue that may extend to the consideration of employment outcomes for students.

Statement of the Problem

Research suggests that the job status of college students at graduation is likely to affect their financial future (Auter & Busteed, 2018). Student loan debt can prevent college graduates from achieving their personal and career goals (Summer & Student Debt Crisis, 2018). Student loan debt is at an all-time high ("Consumer credit - G.19," 2019) and it is also known to prevent college graduates from achieving their personal and financial goals. When

taken together, these concerns point to an increasing pressure for college graduates to be able to secure gainful employment at graduation in order to curtail some significant life challenges. There is a need for leaders in education to understand how career courses might affect employment outcomes for college graduates in order to make informed decisions of curriculum design for a generation of students with unprecedented levels of student loan debt. Despite these rising pressures, there is a lack of research connecting the effectiveness of college career courses to employment outcomes at graduation.

Purpose of the Study

The purpose of this research is to use internship and employment data collected by the College of Business at Appalachian State University to expand measures of effectiveness for a business college career course. Through further study, it is possible to gain insight into ways career courses might improve student readiness for job and internship searches and set them up for success upon graduation. The study of long-term impacts, like employment at graduation can provide evidence for the effectiveness of systematic delivery of career services. The study of career courses and employment rates may also serve as an informative tool for higher education administrators considering the implementation of career coursework into their curricula.

Research Questions

This dissertation seeks to address the following research questions to explore measures of effectiveness of a career course:

Research Question One: Do students who complete a career course exhibit skills, knowledge, or attitudes that can affect their job or internship search?

Research Question Two: Do students who complete a career course obtain internships at a different rate than students who do not?

Research Question Three: Do students who complete a career course obtain employment (at graduation) at a different rate than students who do not?

Research Question Four: Is there a correlation between the completion of a career course and employment at graduation?

Research Question Five: Are students who complete a career course more likely to have secured employment at graduation if they complete a career course?

Research question one seeks to provide descriptive statistics necessary to establish context for course goals and how they contribute to short-term student achievement.

Research questions two through five seek to provide further descriptive and predictive statistics by exploring long-term career achievement as it relates to students who did or did not take a business career course. Collectively, these questions seek to understand if a career course can predict employment at graduation.

Significance of the Study

This study builds on, and contributes to, a working understanding of the broad impacts of career courses. Career courses have been widely assessed for effectiveness by measuring short term results such as confidence, self-efficacy, and preparedness. They have also been assessed by their long-term ability to affect GPA and persistence to graduation (Reardon & Lenz, 2018). This study contributes to the efforts of such research by seeking to understand additional short- and long-term impacts of career courses. Although numerous studies have identified the impact of career courses through pretest/posttest methods of measuring confidence and skill levels, there has been little analytic attention paid to their

effectiveness in terms of job and internship attainment. As such, this study provides additional insight into the effectiveness of career courses in terms of their ability to help students obtain a job or internship.

The analytic focus on job and internship attainment opens possibilities of understanding what student behaviors or course assignments may contribute to employment outcomes at graduation. This study analyzes employment data to search for possible correlations between a career course and employment at graduation. This research provides insights and outcomes that may be useful for university leadership who wish to consider the potential benefits of implementing a career course. This work differs from other work in that it investigates four years of archival employment data for students who successfully completed a career course compared to a group of students who did not.

Definition of Terms

The term *career course* will be used to describe the college class that is the subject of this research. A career course can be defined as such by identifying the underlying goals of the instruction. Miller et al. (2018) identify the overarching goals of a career course as follows, “to help undergraduate students explore occupations; acquire relevant educational information; develop greater self-knowledge; in relation to interests, values, and skills; and develop necessary tools and skills for making career decisions and solving career problems” (p.371). The career course central to this research was called *Business Professional Leadership and Career Development* with the prefix and number *BUS 2000*. BUS 2000 met all of the goals stated by Miller et al. (2018) through several career development activities and assignments standardized across all sections and instructors of the course.

BUS 2000 included assignments for major and career exploration, company research, and career fair attendance, all of which guide the student through an exploration of possible occupations. This career course also instructed students in the creation of an elevator pitch and interview preparation, which invited students to inventory their interests, values, and skills. Students created a resume and LinkedIn profile, which allowed them to solve specific career problems. There was also a co-curricular event requirement that invited students to attend club expo and acquire relevant educational information about programs available in their intended major. Finally, students developed necessary job search skills by utilizing campus job posting systems as a method of assessing available jobs in order to develop career decision strategies. Together, these activities and their stated goals closely align with those stated by Miller et al. (2018). Therefore, the term career course is an appropriate term to describe the college course explored in this study.

The terms *outputs* and *outcomes* will be used often in this writing to refer to the resultant effects of career courses. They are used to specify short- and long-term impacts of career courses as defined by Folsom and Reardon (2003). These words will appear in italics throughout this writing to denote their specific use as conceptual, organizing terms.

Assumptions and Limitations

A primary assumption of this research is that the majority of business students seek full-time employment at the time of or soon after graduation. Furthermore, this research assumes that the skills necessary to secure full-time employment at graduation can be taught in a college course. The career course assessed in this study was designed for, and delivered to, students in a business college. As a result, the findings may not be readily applicable to majors outside of business colleges.

Conclusion

This research will include descriptions and analyses of employment data for students who graduated from a business college. Employment *outcomes* are considered as a possible measure of success to add to the growing body of literature concerning the effectiveness of career courses. This study owes an interpretive debt to Folsom and Reardon (2003) for a comprehensive organizational framework on which to contribute to the understanding of career courses and their impacts. Their *output* and *outcome* framework provides a useful approach to study career courses and continues to push this field of study forward. Their work will be described in the review of career course literature that follows.

Chapter Two: Review of Literature

To situate an informed perspective of career courses, it is helpful to trace their history and development, starting in the early 1900's. This literature review will discuss key authors whose research catalyzed the study of career courses in higher education. Their pioneering work serves as a foundation to understand the growth of career courses in universities during the last century. This literature review will also survey contemporary writing and research to note the variety of ways that the effectiveness of career courses is studied. A survey of college career course history makes it possible to see where this research will fit into and advance the study of college career courses.

I will take a chronological approach to provide a comprehensive summary of career course literature and move into career course literature specific to business colleges, beginning in the 1970's. This review will pay special attention to literature concerning career courses for business students in order to position a historical perspective of how business career courses have been studied and assessed. Finally, I will identify a conceptual framework that will establish the categories for measures of effectiveness of career courses. These categories will organize the research design of this study and provide the foundation for an analysis of internship and employment data

Review of Career Course Literature

Career Development Theory stems from the seminal writing, *Choosing a Vocation* (Parsons, 1909). This foundational work on vocational guidance served as a springboard for what would later become Career Development Theory. Parsons (1909) identified three factors in making a wise choice of vocation: a clear understanding of one's abilities and their causes, knowledge of the requirements of particular kinds of work, and true reasoning on

how these two groups of ideas reconcile with each other. According to Parsons (1909), bridging interests and abilities with vocational requirements necessitates guidance and mentoring. The careful thought and planning suggested by Parsons' (1909) notions of career guidance would set the tone for future work around mentoring students in the transition from higher education to a meaningful career.

The study of organized career guidance in colleges dates back to the efforts of faculty at Stanford University from 1911 to 1913, when a larger movement of systematic vocational guidance began to organize around Parsons' (1909) work. The efforts of Stanford faculty to incorporate vocational guidance into their curricula were formally summarized by Maverick (1926) who wrote a book detailing their insights and efforts. In the book, *The Vocational Guidance of College Students*, Maverick (1926) described a core issue that still remains relevant today. Concerning implementation of a career course, Maverick (1926) summarized the decision as a choice, "to serve only students who have already come to an appreciation of their vocational problems, or to extend its service to the entire group of students, all of whom will meet the problems" (p. 127). In many ways, this is still an apt question of educational leadership, to include it for all students as part of the curriculum, or to provide it only to those who seek it.

Maverick (1926) also suggested that placing a career course into the college curriculum should happen during sophomore year, noting that, "it should precede the choice of major" (p.128). This advice demonstrated thoughtful consideration for guiding students to their chosen major equipped with the vocational knowledge to make a sound decision. He thought that with formalized vocational knowledge and guidance, students would find that bridge between interests and abilities that Parsons (1909) held as fundamental. Not only was

this thought to benefit students, but it was also recognized as a benefit to the university, and ultimately of benefit to employers.

Maverick (1926) saw employment assistance for students as an issue that required real attention. The concern was that unguided vocational choices of students could likely drift into fields unrelated to their education or technical preparation. Such a drift was described as a “regrettable economic loss” (Maverick, 1926, p.137) from the perspective of the university. Vocational guidance for students was seen as a corrective action to this type of avoidable loss. It was seen as a way to guide a potentially drifting student to intentional choices of major and then to an intentional career choice. Maverick’s (1926) writing laid a foundation for understanding the potential benefits of formal career courses for students, administrators, and employers. As a result, his stance was that career courses should be highly prevalent and that, “Institutions of all grades and types need to furnish guidance to their students” (Maverick, 1926, p.117). Career courses would become more prevalent as many colleges started to answer this call.

Studies of Career Course Prevalence

Hoppock (1932) wrote extensively about the prevalence and importance of career courses, calling the choice of career, “one of the most difficult problems of the college student” (p. 365). He described with unique clarity the problem of deciding what role a college should take in assisting students in their career development. Even though he recognized this was an unsettled issue, he found the study of already deployed career courses useful to understand what was possible, useful, and practical.

Hoppock’s (1932) survey of career courses included 18 course descriptions that approached many aspects of student engagement with career decision making. Many of them

included surveys of possible occupations and techniques for helping students understand their own motives, abilities and aptitudes (Hoppock, 1932, pp. 366-368). Several of these career courses were designed for the college freshman or sophomore, suggesting thoughtful interventions to help early college students choose a major that aligns with an informed career choice. Hoppock would go on to co-author larger and more comprehensive surveys of career courses.

Like many early studies of career courses, Stevens and Hoppock (1956) sought to use course catalogue descriptions to inventory career courses offered in order to describe their characteristics and prevalence in colleges across the country. Their article described courses offered by eleven colleges to guide students in their occupational choices. The common aspects present throughout catalogue descriptions of career courses were that they raised awareness of occupations, what they offer, and what they required (Stevens & Hoppock, 1956). The work of Stevens and Hoppock (1956) represented a turning point for college career courses. Though the percentage of institutions that offered career courses was still relatively small, there was a noticeable, emerging trend. They concluded that there was “no lack of precedent for the counselor or placement officer who wishes to start such a course on his own campus” (Stevens & Hoppock, 1956, p. 1). Not only was there a precedent for career courses, they were offered for academic credit just like other academic subjects. Additionally, they could be found in liberal arts or technical colleges and they could be found from freshman to senior year (Stevens & Hoppock, 1956).

By the mid-sixties, Hoppock was joined by other researchers who sought to understand the prevalence of career courses. Calvert, et al., (1964) surveyed 1,850 colleges and of the 1,023 respondents there were 70 that offered courses devoted to occupational

guidance. They speculated that conservatively, there were likely over 100 such courses offered in the United States at the time. The survey data presented by Calvert et al., (1964) marked another turning point for college career courses. The number of career courses offered was on the rise and so was the interest in them. Many of the surveyed schools that did not offer career courses, expressed particular interest in doing so and requested copies of the survey results. In summarizing the survey results, the authors point out the importance of the continued study of career courses and note that, “Experience from these courses should help refine their methodology and increase their effectiveness” (Calvert et al., 1964, p. 682). Educational researchers continued to push the understanding of career courses and follow what Calvert et al. (1964) recommended by shifting the focus of research beyond surveys. Precedents for, and prevalence of, career courses became somewhat established and the focus of research began to shift to the study of individual courses, their design, content, and significance to life after college.

Studies of Career Course Significance

James Elkins (1975) would connect the significance of career planning in college to the problem of the cost of higher education. He offered a career planning workshop to 186 freshmen because, as he asserted, “A restricted labor market and the ever-rising costs of attending college have made even more difficult the plight of students who are undecided about a college major and career” (Elkins, 1975, p. 354). During Elkins’ (1975) workshop, he would ask students to name factors they felt were important to their career planning and share them in discussion. Comparing answers to a pretest/posttest questionnaire seemed to suggest that mere exposure to new factors for career consideration increased students’ capacity to consider a wider range of factors that could potentially affect their career plans.

Elkins (1975) claimed that factors like interests, earnings, opportunity, personality, satisfaction, goals, and abilities could provide a foundation for career counseling. Furthermore, he noted that initiating the first steps of career counseling for college students may help them, “view their career planning as more than simply the selection of an occupation” and “increase their chances of embarking on a satisfying career” (Elkins, 1975, p. 357). Many of the factors that Elkins (1975) identified would later be integrated into career courses and counseling at universities.

The work of examining career courses from Maverick (1926) through Elkins (1975) represents the general historic background of research into career course effectiveness. In order to establish context for more specific research concerning the effectiveness of career courses in business colleges, this review will branch into studies specific to business colleges. What follows are descriptions of studies of business career courses that started to emerge in the 1980’s.

Review of Business Career Course Literature

Research concerning career courses in business colleges began to take shape in the 1980’s with a methodology reminiscent of Hoppock (1932) in its descriptive approach. Montana (1989) sent questionnaires to business college deans at 657 institutions to establish the prevalence of career courses in business colleges. Of the 187 that responded, 64% of them offered a career course. Roughly half of those courses included resume writing and job search skills as primary objectives (Montana, 1989, p. 61), suggesting a deliberate effort to prepare students for their upcoming job search. The focus on preparing students for entering the workforce after graduation showed an expansion of the purpose of career courses. They

became more than support for students' initial major/career decision and grew into methods of preparation for the transition from university to work.

Focus on Transition to Employment. After the prominence of business career courses was established, research began to shift into specific ways that business career courses prepared students to transition into employment after graduation. Brooks (1995) wrote a compelling summary of her experience developing, implementing, and teaching a career course in the business college at North Carolina State University, calling career courses for academic credit the “fire that gets our students off and running on their job searches” (p. 29). Based on an employment survey given six months after graduation, Brooks (1995) hinted at the possibility that accounting students who had taken a career course obtained jobs at a higher rate than other majors who had not taken the career course. Brooks (1995) admitted that there were response rate and sampling issues that could have skewed the results. The strong possibility for skewed results limited generalizability, but since Brooks (1995) forthrightly described the limitations, it is still a noteworthy study. The reported difference in rates of job attainment presented an intriguing notion for future research as it relates to career courses.

Another call to action for business career courses can be found in Gordon's (2005) writing about self-marketing in a successful job search. He observed that marketing majors learned, “how to market other people's products, but not how to market themselves” (p. 38). To remedy this, a course was offered to supplement the efforts of career services. A three-credit elective career course was taught to marketing students to develop their job search skills. The course gave students an opportunity to understand how using “specific search techniques gives them an awareness of the power they have in the job-search process”

(Gordon, 2005, p.38). In this writing, self-efficacy is stated as the primary goal for a business career course. The greatest benefit according to Gordon (2005) is that students become “self-assured, no longer seeing themselves as victims in the process, but realizing the power they have to affect change” (p. 40). The explicit goal of increased self-efficacy as the purpose of a business career course set a powerful tone for research at the time and research that followed concerning the life impact of such a course.

Faculty in the School of Business at Oakland University saw the possible life impact of a career course so beneficial that they created four zero credit courses for their undergraduates to take during each year of their program (Majeske & Serocki, 2009). They sought to support students across their college careers as they made the transition to employment. Their career courses involved student participation in job fairs, connecting students with campus organizations, resume writing, major specific information relevant to guide possible career choices, job search skills, and a variety of professional development workshops. The effectiveness of the four-year program was largely measured by student responses to a questionnaire provided. Most of the questionnaire respondents reported that they were more aware of the value of networking, that they were more comfortable introducing themselves, and that certain activities were helpful in defining business majors. Majeske and Serocki (2009) were in the early stages of development of a large-scale business career course curriculum that valued and leveraged faculty relationships. They advised others seeking to design similar programs to closely monitor student success and anticipate adjustments to course design based on those successes. The article was marked with a tone of caution as the authors seemed to suggest that the time and staff resources necessary to

develop and deliver the program were highly demanding, but well worth the investment (Majeske & Serocki, 2009).

Efficiency of Career Courses. Concerns of time and efficiency grew as universities considered allocating resources to career courses. Program administrators were concerned about the financial effectiveness of career courses given limited career center staff. Often, career courses were seen as a way of providing career coaching services to large groups of students as a more efficient method than one on one conversations, which are not possible for every student. Sampson (2009) wrote, “Practitioners need to improve the cost-effectiveness of career interventions by using career resources and services that are most likely to be helpful at the lowest possible cost. This strategy allows practitioners to maximize the number of individuals who can be served in ways that meet their needs” (p. 94). Sampson (2009) suggested a larger shift of career development to a programmatic focus rather than leave it as an ad hoc issue.

The appeal of effectiveness in terms of student success combined with the efficiency of career development delivered as part of the college curriculum served as compelling reasons for more business schools to implement career courses. Short-term student success remained a primary goal for research into the effectiveness of career courses in business college curricula. Smith et al. (2012) described the effectiveness of a career development curriculum for freshman business students that included a career test, industry research, resume preparation, and interviews with industry professionals. The results of their pre-test/post-test questionnaire analysis showed that industry and job knowledge increased moderately as a result of the career development curriculum. Additionally, after learning about campus activities and internships, students reported that they intended to pursue both in

higher numbers as a result of the curriculum. Their (Smith et al., 2012) findings, “provide encouraging signs to support the use of a career-oriented curriculum for incoming freshmen business students” (p. 25). The statistical significance of their results started to build momentum around the notion that exposure to career information and opportunities as part of a business curriculum were working to provide new and useful career insights, skills, and knowledge.

Inherent Value of Career Courses. In the years that followed, the effectiveness of career courses for business students began to be somewhat assumed and appreciated for their inherent value. Peterson and Dover (2014) noted that providing LinkedIn instruction to students in a marketing course led to improved networking skills, established professional contacts, and a professional media presence. The authors reported that students were motivated to utilize the LinkedIn platform in ways that were not required, suggesting the students found inherent value in the work they were directed to by the assignment.

Bear (2016) described the creation of a new career course designed to, “help students develop strategies to successfully begin their careers after graduation” (p. 80). The article outlined networking, interviewing, company research, resume, and elevator pitch assignments that were highly rated and met with enthusiasm by students because they saw it as useful and relevant to their lives. Students found an increased appreciation for the value of networking and suggested interest in the creation of a LinkedIn group for current students and alumni without prompting from the author. Bear (2016) noted that the new career course was a pilot course that after one year had shown enough promise and support that it soon became part of the required business curriculum (p.84).

The rapid adoption of career courses that Bear (2016) described, can also be found in a more recent publication by Amoroso and Burke (2018). The business college at Fairleigh Dickinson University developed a single, elective career course that would evolve into a four-year schedule of required career courses in just over 2 years. This four-year, curriculum-based approach to career development was designed to, “prepare business students for a lifetime of employability” (Amoroso & Burke, 2018, p. 428). The career courses in the curriculum involved job search, networking and interview activities, as well as resume, cover letter, and LinkedIn work. In describing their career course curriculum, Amoroso and Burke (2018) showed a progression of career development activities that are best suited to each class level, from freshman to senior year. Their comprehensive career curriculum design was made possible by acknowledging the developmental phases of specific, short term student successes that lead to the long-term development of career management competencies of self-awareness, employability (appropriate communication and dress), career search skills, industry knowledge.

This dissertation will seek to provide a comprehensive perspective similar to that of Amoroso and Burke (2018). Through the exploration of short- and long-term effects of a business career course, it is possible to gain insights into how informed curricular decisions can be made about them. It is possible to see how the immediate success of students is ultimately related to the delayed benefit of increased self-awareness, industry knowledge, and career search skills.

Conceptual Framework

This writing will adopt a conceptual framework organized by two categories of defining career course impacts put forth by Folsom and Reardon (2003). Their examination

of career course literature was the first comprehensive review to inventory the main types of impact career courses can have on students. They reviewed 46 studies that took place between 1976 and 2001 and involved 16,320 students. They organized the effects noted in those 46 studies into two main categories of impact, termed *outputs* and *outcomes*. Folsom and Reardon (2003) describe both types of impact as measures of accountability where career course interventions are concerned (p. 444).

Roughly two years later, Folsom et al. (2005) updated their findings with a second review of career course literature, which included 50 studies between 1976 and 2005 and involved nearly 19,000 students. Their findings were published as a technical report that again framed the effects of career courses in terms of *outputs* and *outcomes* (Folsom et al., 2005).

The ongoing effort to inventory college career courses and their impacts is more recently summarized in a technical report by Reardon and Fiore (2014). At that time, 25,333 participants were involved in documented studies of career courses. The results and findings remained framed in terms of *outputs* and *outcomes* (Reardon & Fiore, 2014). As the prevalence of career courses grew, so did the number of students they reached, making career course *outputs* and *outcomes* a more pressing matter to research.

Outputs

The first category of impact for career courses, known as *outputs* are considered the “skills, knowledge, and attitudes acquired by participants as a result of an intervention” (Folsom & Reardon, 2003, p. 427). For Folsom and Reardon (2003), *outputs* are measures of career maturity, self-knowledge, self-concept, positive career attitudes, confidence in career decision making ability, vocational identity, and locus-of-control beliefs (p. 434). Out of the

32 studies Folsom and Reardon (2003) analyzed, 88% reported positive results in which a career course was linked to an improvement in terms of *outputs*. These studies made use of a wide range of survey methods and questionnaires that collected information using pretest-posttest designs. More studies of this kind would follow.

Rees and Miller (2006) investigated career decision making self-efficacy through students' ability to set career goals, obtain occupational information, and build a career plan. Their pretest-posttest analysis showed a favorable impact on the decision-making process students undertook when choosing a major as a career path. Their results, among many others, point to increased self-efficacy as a frequent result of career courses.

Chalice Randazzo (2012) described resume writing as a powerful tool for self-inquiry and an opportunity for students to, "reflect-in-action as they build their resume" (p. 380). The act of teaching resume writing was seen as an opportunity to guide students through a learning process that could evoke insights into their experiences and increase their self-efficacy in the job search. Randazzo (2012) wrote, "they are bridging the gap between their academic and professional life, meaning that they will generalize these skills beyond the classroom" (p. 381). Resume writing allowed students to relate past experiences to future goals. It was thought that this act would have the student extrapolate their current experiences into a new framework, and thereby increase the potential for improved self-efficacy.

Much of the recent literature exploring the effectiveness of career courses deals with *output* measurement of student skills and self-knowledge which indicate their connection to career self-efficacy. For example, McDow and Zabrucky (2015) explored the quality of resumes and interviews before and after a career course. They found significant

improvements in both functional areas. There are numerous studies that deal with *output* research that show well established, positive results.

The history of positive results using pretest, posttest methods to measure *outputs* provides a promising starting point of inquiry for this study. Therefore, this study will seek to include immediate, follow up measures of skills, attitudes, self-efficacy, and knowledge after the business career course treatment being examined. Reports of *outputs* measures are a starting point for this dissertation and are covered in order to provide initial context for the research. The large number of studies yielding positive reports on career course *outputs* is well established. This study will not attempt to recreate *output* research as explored in prior studies but will provide *output* measures as a starting point for describing more immediate effects of a business career course.

Outcomes

Outcomes are the “resultant effects occurring at some later point in time” (Folsom and Reardon, 2003, p.427). Research into the long-term impacts or *outcomes* of career courses often include measures of retention, student persistence, and graduation rate. One such example is a study by Reardon et al. (2015), in which the researchers suggest that predefined career goals as part of a career course contributed to higher graduation rates.

In another notable study of career course *outcomes*, Hansen et al. (2017) explored the impact they have on academic performance, as well as retention and graduation rates. While the authors found no significant difference in retention rate, they did find a difference in cumulative GPA at graduation. Students who took the career course had a marginally higher GPA at the time of graduation (Hansen et al., 2017, p. 220). Hansen et al. (2017) suggested that students who identified a clear career goal were motivated to perform well in their

coursework which they saw as preparing them to accomplish their long-term goals.

Additionally, this plays out as a benefit when students become job candidates as recruiters often use GPA as a screening criterion.

Reardon and Fiore (2014) have used an *output/outcome* framework to catalogue a remarkably vast body of research concerning the effectiveness of career courses. They make clear recommendations for future studies and their suggestions strongly indicate a need for new *outcome* research. In this powerful phrase, Reardon and Fiore (2014) claim that “The ultimate value of career courses in higher education will probably be most affected by *outcome* research that documents the impact of courses on student retention in college and the quality of work and life roles after college” (p. 8). This writing seeks to answer the call for more *outcome* research that studies the impact of career courses and how they might affect the quality of life for students after college. Specifically, this study will assume the use of employment and internship data as *outcome* variables by which the effectiveness of a career course can be measured.

Chapter Three: Methodology

Research Design

This retrospective causal-comparative study uses an ex post facto research design that analyzes archival data to bring clarity to five research questions. The nature of the five research questions situate the study as one that will describe a history of professional and academic information that requires the use of archival data. Elder et al. (1993) write, “The more one learns about an archive of life-history information, the more one can press a research question toward greater clarity.” (p.2) The methodological approach suggested here will explore archival data for the purpose of understanding a series of career development events and how those events may be connected in their histories. Comparisons will be made between multiple grouping variables in order to study connections between them and thereby push the research questions “toward greater clarity” (Elder et al., 1993) through the study of archival data.

The study of archival data is well suited for the study of employment data as it relates to college students. When seeking to describe a relationship between a college course and a possible future state of employment, the measurement is necessarily delayed until the student has graduated, thus necessitating the retrospective nature of the inquiry. Since this research seeks to describe events that have already occurred, a causal-comparative research design is chosen to best explore the relationships between two groups of business students, (1) a group who completed a career course and (2) a group who did not complete a career course.

The *outputs* and *outcomes* for students can be traced back to provide measures of immediate impact at sophomore year as well as delayed measures of impact during junior and senior year. From existing survey and employment data, it is possible to know how many

students used the resources in the course right away, how many students completed internships later, and how many were employed at graduation. This research follows the progression of a student group through these three phases to build a more complete picture of the impact of career courses.

Setting and Sample

This study took place in the Walker College of Business at Appalachian State University, a public university in the southeast. In a typical semester, total enrollment is approximately 20,000 (UNC System, 2020), of which approximately 4,000 are business majors or business minors. This study investigates a population of 2,635 individual students representing four years of business school graduates, spanning from Fall 2015 to Spring 2019.

The population (N=2,635) in this study was 67% male and 33% female. Approximately 95% of this population were in state students with 5% out of state. Approximately 35% of the students in this study were from rural North Carolina counties and 28% of them were first generation students. Ethnicity of the population breaks down as follows: 86% White, 5% Hispanic/Latino, 3% Black, 2% Asian, 2% Unknown, <1% Non-resident Alien, <1% American Indian, <1% Alaska Native. The average age of students in this population was 22.5.

In the fall of 2014, a non-credit career course was created and introduced as a business college admission requirement. The career course was called *Business Professional Leadership and Career Development* and its standardized curriculum was taught by career services staff members. Students who were already admitted on older bulletins were not required to take the new career course, but it was phased in for all incoming business

students. As the course was phased in over four years, two populations of students emerged. One population could be found that had taken the career course (n=1,345) and another population could be found that had not taken the career course (n=1,290). The progress of both groups can be traced at various stages of career development from sophomore to senior year.

As a sophomore, the immediate effects of the career course were captured by an optional survey that students were asked to complete that asked questions about how they had used the course resources in their career development. There were 1,027 students who completed the post career course survey, which represents 76% of the students who completed the career course. The responses this population submitted will be detailed to provide initial context for this research.

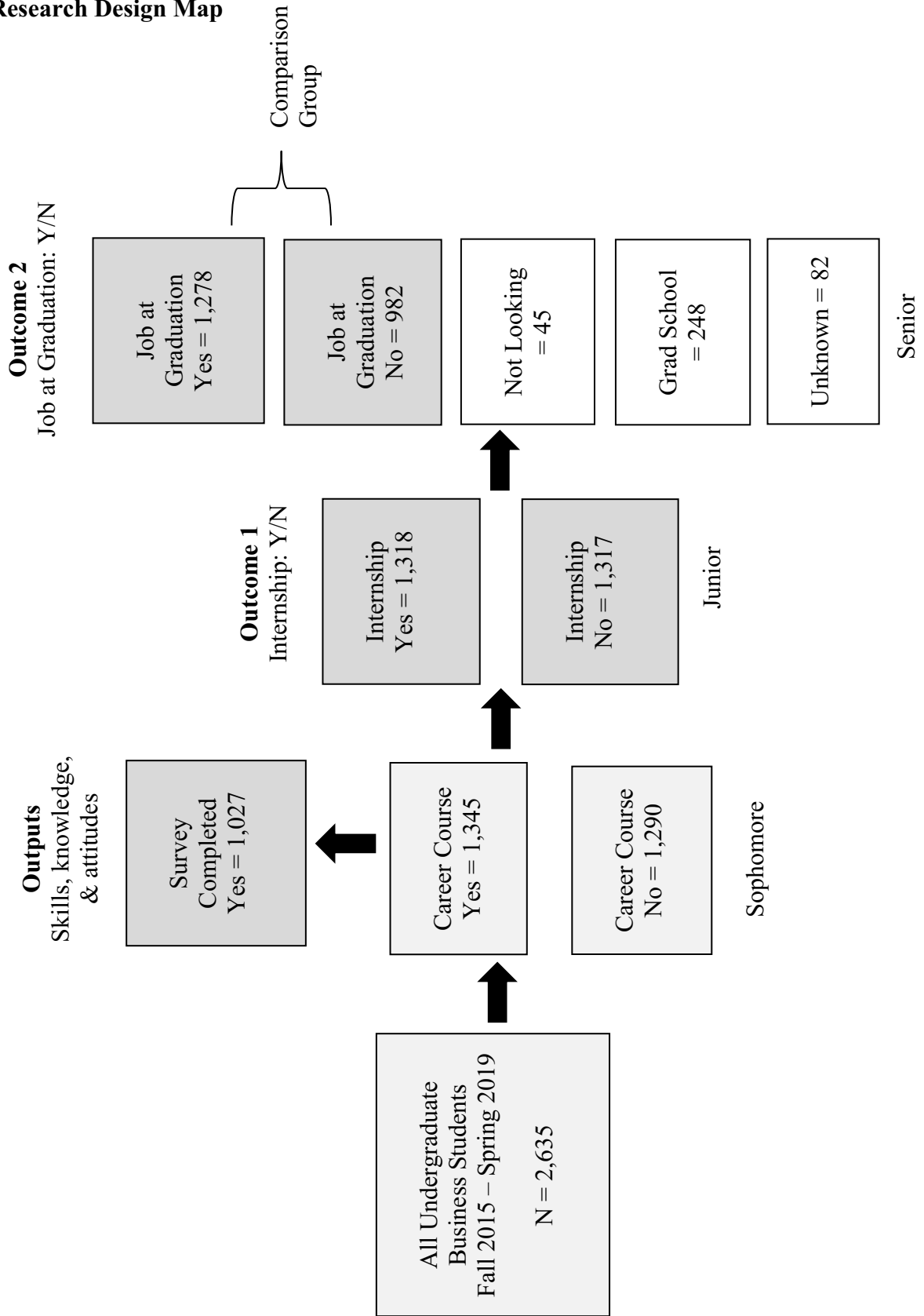
Approximately 50% of the business students in this study completed an internship. Most students complete their internships the summer after their junior year. The group of students that had internships is equal to 1,318 and the group of students that did not have an internship is equal to 1,317. This provides a comparison group to study the potential effects of the career course on internship attainment during junior year.

The final comparison group that will be studied is comprised of students who had a job at graduation (n=1,278) and students who did not have a job at graduation (n=982). Students were considered employed at graduation if they satisfied one or more of the following criteria: employed full-time with a job title related to their field of study, self-employed by a company created by the student, employed full-time by a company that provided services in the industry related to their field of study, employed full-time in a management role, employed as an intern with plans to transition into a permanent full-time

job, and/or the student reported their attained position as their intended career goal. The employment data set used in this study did not categorize part-time or seasonal employment as employed at graduation.

Excluded from the employment comparison groups were students who were not looking for a job (n=45), students who were accepted into full-time graduate school programs (n=248), and students whose employment status remained unknown (n=82). The remaining comparison groups provide a measurement opportunity for job attainment of students at graduation. Figure 1 shows the progression of the comparison groups to provide a conceptual map of the research design.

Figure 1
Research Design Map



Research Questions and Null Hypotheses

Null Hypothesis

This dissertation will explore the possible relationships between a group of students who took a career course and possible effects on job and internship attainment. Broadly, this research assumes the following null hypothesis: Completion of a career course does not have an effect on internship attainment or job attainment at the time of graduation. To investigate the null hypothesis, methods of statistical analysis will be discussed that correspond to five research questions.

Research Question One

Do students who complete a career course exhibit skills, knowledge, or attitudes that can affect their job or internship search?

Research question one seeks to increase knowledge of *outputs* for the career course being investigated by describing measures of career self-efficacy. The most influential way through which self-efficacy is formed is through past accomplishments (Bandura, 1978). Bandura et al. (2001) later connected self-perceived abilities to their effect on career aspirations and trajectories. This work provided a conceptual link between increased self-efficacy and career development. Investigating immediate accomplishments of students enrolled in the career course provides a measure of career self-efficacy that serves as a starting point for the study. These measurements will be categorized as *outputs*. An investigation of *outputs* can provide descriptive value for understanding the context of the career course and its immediate impacts on the career development of students.

Archival survey data is provided as a measure of career development activity for students at the conclusion of the business career course. At the end of each semester, students

enrolled in the career course in the Business College were asked to check any statements that described their experience using resources provided in the career course. Those survey statements are conceptually linked to studies of “skills, knowledge, and attitudes” (Folsom & Reardon, 2003, p. 427) that contribute to career self-efficacy. Each survey statement is provided here with the corresponding conceptual link to existing literature for convenience to the reader, but citations were not included in the actual survey. The post career course survey contained the following statements:

Survey Statement One: I gained confidence in my choice of major as a result of the major exploration assignment (Gordon & Steele, 2003).

Survey Statement Two: I joined a club I learned about at the Business Club Expo (Amoroso & Burke, 2018).

Survey Statement Three: I used my new resume to apply for an internship or part-time job (National Association of Colleges and Employers, 2021).

Survey Statement Four: I secured a job or internship through a career fair (Stonebraker et al., 2019).

Survey Statement Five: I discovered a company I may want to work for via the company research assignment (Stonebraker, et al., 2019).

Survey Statement Six: I used my LinkedIn profile to connect with a recruiter, find, or apply for a job or internship (Peterson & Dover, 2014).

Survey Statement Seven: I used the STAR method to prepare for an interview (Lackner & Martini, 2017).

Survey Statement Eight: I have not yet used course resources.

Responses to the preceding questions were gathered for four years at the end of each semester. This study aggregates the archived answers to the previously stated questions from 1,027 respondents in order to provide a starting point for the study and describe immediate measures of results for students. Additionally, research question one builds on the notion of *outputs* by suggesting that successful usage of career course materials contributes to student self-efficacy and ultimately to successful job search skills.

Research Question Two

Do students who complete a career course obtain internships at a different rate than students who do not?

The population of all business college graduates between 2015 - 2019 (N=2,680) will be divided into two groups: (1) graduates who completed the career course (n=1,345) and (2) those who did not complete the career course (n=1,290). Group two will act as the comparison group, with the independent variable being the career course. The dependent variable for research question two will be internship attainment. To answer research question two, this study will compare the rates at which business students obtain internships using cross tabulations to show the number from each group who obtained internships. Those rates will be tested for association using a chi-square analysis. A significant difference in the comparison groups can describe a possible association with the career course.

Research Question Three

Do students who complete a career course obtain employment (at graduation) at a different rate than students who do not?

To address research question three, the four-year population (n=2,680) of business school graduates will be divided into two groups: (1) students who completed the career

course (n=1,343) and (2) a comparable group of students who did not complete the career course (n=1,290). These two groups will be compared to see if there is a significant difference in the rate at which they obtain jobs at the time of graduation using cross tabulations to show the numbers for each group. Those rates will be tested for association using a chi-square analysis. The students who did not complete the career course will serve as the control group where the independent variable is the completion of the course and the dependent variable is job attainment at graduation. If a significant difference can be measured, it may provide evidence to support a relationship between the career course and job attainment at graduation.

Research Question Four

Is there a correlation between the completion of a career course and employment at graduation?

To test for a correlational relationship between a career course and employment at graduation, a bivariate logistic regression is employed to test the predictive value of having taken a career course. Completion of a career course is taken as the explanatory/independent variable and employment at graduation is taken as the *outcome*/dependent variable. The use of bivariate regression analysis describes the relationship between explanatory and *outcome* variables (Coladarci & Cobb, 2014). Testing the correlation between these two variables allows for a test of the null hypothesis: *taking a career course does not have an effect on job or internship attainment for undergraduate business students*. Testing the null hypothesis will assess the possibility that one can predict a student's employment outcome based on whether or not a career course was taken. Testing for this correlation provides predictive value to the analysis of the career course and its *outcomes*. In order to provide additional

context for the correlation between the career course and employment at graduation, two additional variables will be tested.

Average GPA and the presence of an internship will be assessed as independent variables and tested for correlation to employment at graduation as the dependent variable. Average GPA will be coded as a dichotomous variable, one state for below average GPA and another state for above average GPA. The average GPA for students in this study was 3.1. Internship completion will also be coded as a dichotomous variable, depending on whether or not the student completed an internship. Binary logistic regressions will be performed on these GPA and internship completion in order to provide additional context for the testing of the career course correlation. Logistic regression is also used to test gender and ethnicity in the consideration of confounding variables.

Research Question Five

Are students more likely to have secured employment at graduation if they complete a career course?

While a bivariate logistic regression tests for correlation, the odds ratio is used to quantify the predictive power between the explanatory and *outcome* variables. Specifically, calculating the odds ratio makes it possible to quantify how likely it is that a student has a job at graduation based on the presence of the explanatory variable, the career course. By quantifying the strength of the correlation, the odds ratio provides prescriptive value to this analysis.

In order to cross examine the results of this study, an annual breakdown of the rates of employment at graduation will be provided for each of the four years of data included. It will be possible to see if the rates of employment at graduation increase as the career course

is phased into the curriculum. This provides a way to assess the internal validity of the correlative results.

Demographic data will also be examined in order to test for potential confounding variables. Logistic regression analysis will be used to test if gender and/or ethnicity are predictors of employment at graduation. This test provides an additional method of isolating explanatory variables.

Data Collection

Three datasets are used in this research. The first is anonymous survey data taken at the end of the career course, which asks students if and how they used the resources provided in the career course. The second data set is a Banner report that contains a student record for each student who successfully completed the career course, BUS 2000. The third data set is employment data collected by business career center staff to know which students had a job at graduation and which ones were still looking or not looking. The employment data set also includes internship information. An internship status of yes is recorded for any student who reported completing an internship or if they were known to have completed an internship for credit.

For accreditation purposes, the business college at Appalachian State University maintains detailed records of internship and employment data for all of its graduates. The department of Business Career Services collects employment data on graduates throughout the academic year. This data is archived in annual datasets of employment information on all business school graduates.

The primary dataset used in this study is archival survey data of employment information collected on recent business college graduates from 2015 to 2019. The first

phase of collecting employment data involved a survey at the graduation ceremony for each graduating class. Every business student who participated in graduate commencement filled out a paper survey asking if they had secured gainful employment, the name of the company if yes, the position title if yes, salary range if yes, and if they completed an internship as an undergraduate student.

The second phase of employment data collection happened through the use of LinkedIn. Business Career Services staff members searched for students who did not take the survey to find publicly available employment information on LinkedIn. The third phase of employment data collection involved a staff member who contacted students on an individual basis through LinkedIn, email or phone. In the fourth and final stage of employment data collection, faculty partners reached out to students who were otherwise unresponsive. Each successive step added more information to the employment dataset. For the time span of 2015 to 2019, employment data was collected for 97% of business school graduates. The high knowledge rate contributes to the reliability of this study.

Business Career Services also keeps detailed records of every student who took the business career course and in what semester. It is therefore possible to know whether or not the student is in the course record and if they earned credit for the course. This dataset was used to check for successful career course completion. For this research, all student data was anonymized and coded so that no identifiable information may be traced to any individual student. No attempts were made to identify individual students. The office of Research Protections at Appalachian State University was consulted to confirm that additional consent forms would not be necessary to conduct analysis of the anonymous, coded, archival data described above.

Data Organization and Cleaning

The raw employment data that this study examined existed in multiple spreadsheets with different methods of organization. Before the raw employment data could be analyzed, considerable time was taken to aggregate the data from multiple spreadsheets. It was necessary to arrange variables into the same columns consistently across each spreadsheet. Once each spreadsheet was organized with a consistent data structure, the data from all existing spreadsheets were combined. Career course data was then added to the aggregated employment data. For each student record in the raw employment data, a career course completion status was associated using a unique student identification number. The aggregated employment/career course data with was then cleaned and coded.

The cleaning process involved identification of missing values. Where data was insufficient to know the employment status of a given student record or in instances where the status was unclear, a status of “unknown” was assigned in order to remove those records from overall analysis. Extraneous characters, duplicate student records, and blank rows were removed from the data. Values for employment status, internship status, and graduation term were relabeled for consistency. The cleaning and organization of employment data across multiple years was a careful and protracted process, yet a necessary one for the creation of an accurate and reliable dataset.

Once the data were organized, cleaned, and consistently labeled, each string variable was coded with numeric values in preparation for SPSS import. A total of 2,635 unique records were used to create an SPSS data file. Descriptive statistics were utilized to check frequencies and identify any missing or out of range values in the SPSS data file. All data quality issues were identified and addressed before statistical analyses were performed.

Summary of Data Analysis

Research question one provides a series of *output* measurements that provide an initial method of describing the short-term impact of the business career course. Research questions two and three analyze associations between the research populations and explore potential differences in the rates of internship and job attainment based on whether or not a student completed a career course, which is a delayed *outcome*. This research seeks to build on studies like those conducted by Hansen et al. (2017) by increasing knowledge of long-term *outcomes* for career courses. This study proposes internship attainment and job attainment at graduation as measurable *outcomes* of a career course.

Research question four seeks to further explore the relationship between the career course treatment and the *outcome* of job attainment at graduation by conducting a bivariate logistic regression to test for correlation. This test explores the predictive value of the research. In order to provide additional context, logistic regressions will be conducted using gender, ethnicity, GPA, and internship completion as predictor variables.

Research question five seeks to further quantify the effect of a career course and employment at graduation by calculating the odds ratio. This calculation explores the prescriptive value of the research by suggesting how likely employment at graduation is obtained based on whether or not a career course was taken. For additional context, annual rates of employment, internship completion, GPA, and career course completion will be provided for each year of the study.

Overall, this study seeks to provide evidence to suggest whether or not a career course might be a significant predictor of job attainment at graduation. Together, the five research questions will inform the study with a conceptual structure that organizes findings

into the two categories of *outputs* and *outcomes*. All five research questions will utilize existing, archival data in order to investigate early indicators that may impact rates of job or internship attainment.

Assumptions and Limitations

Grouping variables are considered to be nominal in this study. Each student can only belong to one treatment category, *with* the career course or *without*. Additionally, each student can only belong to one *outcome* category. This research assumes employment status as an *outcome* variable that can only exist in two states, had a job at graduation or did not. The same is assumed to be true of internships as an *outcome* variable. Each student had an internship or they did not.

There are two notable limitations of this study. The first limiting factor is that it was not known if a student was seeking an internship or not after they completed the career course and whether or not the student had help securing an internship with the assistance of a faculty member. It is common for students to receive considerable help securing an internship through networking relationships between business faculty and industry partners. This limits the ability to make conclusive, correlative statements about the effect the career course had on internship attainment. Therefore, research question two is limited to a chi-square test of association.

A second limitation is that the archival data used in this study did not include records of race and ethnicity for the first two years of the four-year study. However, the last two years of the study did include consistent records of gender and ethnicity. As a result, the last two years of student records is used to conduct an analysis of those two explanatory variables. The sub-population of students with consistent gender and ethnicity records is

n=1,114, about half of the student records in the study. This provides a representative sample to test for correlation to job attainment at graduation.

Chapter Four: Research Findings

The research findings presented in this chapter represent measurements of both *outputs* and *outcomes*. The results are organized by research question and the corresponding year in school. Findings presented for research question one deal with *outputs*, which are defined as the skills, knowledge, and attitudes acquired as an immediate result of a career course (Folsom & Reardon, 2003). Research questions two through five will report *outcomes*, which are considered the delayed, long-term effects of the career course (Folsom & Reardon, 2003). Collectively, these results build a progressive map of the effects of a business career course and its impacts from sophomore to senior year.

To further isolate explanatory variables, this chapter also includes a year by year breakdown of the rates of job attainment and rates of career course completion for the overall student population in each year of the study. To conclude, an exploration of confounding variables is included to test for additional factors that might influence job attainment at graduation. Specifically, GPA, gender, and ethnicity are tested for correlation to job attainment at graduation.

Sophomore Year Outputs

Folsom and Reardon (2003) define *outputs* as the “skills, knowledge, and attitudes acquired as an immediate result of a career course” (p. 427). Students were surveyed at the conclusion of the career course in this study. The results of that survey are classified here as *outputs* and serve to answer research question one.

Research Question One

Do students who complete a career course exhibit skills, knowledge, or attitudes that can affect their job or internship search?

1,027 students out of 1,345 students or 76% of those who completed the career course, completed a survey at the conclusion of the class that asked if and how they used the resources provided in the career course. There was no incentive to complete the survey, but in-person class time was provided for its completion. Table 1 contains the post career course survey results with the frequency of students who checked each statement.

Table 1

Post Career Course Survey of Resources Used (n=1,027)

Survey Statements Checked	Frequency, n (%)
“I gained confidence in my choice of major as a result of the major exploration assignment.”	868 (85)
“I joined a club I learned about at the Business Club Expo.”	250 (24)
“I used my new resume to apply for an internship or part-time job.”	601 (59)
“I secured an internship at a career fair.”	43 (4)
“I discovered a company for which they may want to work for via the company research assignment.”	712 (69)
“I used my LinkedIn profile to connect with a recruiter, find, or apply for a job or internship.”	506 (49)
“I used the STAR method to prepare for an interview.”	261 (25)
“I did not use the course resources.”	31 (3)

The survey results in Table 1 are provided as a starting point for the study. They represent immediate, measurable *outputs* of the course. At the conclusion of the career course, the highest percentages of statements checked were those that reported increased confidence in major decision making, knowledge gained from company research, and resume use. These results suggest potential for a significant impact to the career development process

of students. When the majority of the student body gains specific knowledge from a combination of resume writing as well as career and major research, a measurable effect on future job or internship attainment seems likely and invites further exploration and statistical testing.

Outcomes

The following results for research questions two through five represent the *outcomes* of the career course. These *outcomes* are considered the delayed, “resultant effects occurring at some later point in time” (Folsom & Reardon, 2003, p. 427). Internship attainment during junior year is labeled as *outcome one* and job attainment as a graduating senior is labeled as *outcome two*.

Junior Year Outcome One: Internship Attainment

Research Question Two. *Do students who complete a career course obtain internships at a different rate than students who do not?* H₀: There is no association between career course completion and internship attainment. H₁: There is an association between career course completion and internship attainment.

The cross tabulation in Table 2 details how many students obtained an internship, grouped by whether or not they completed the career course. Table 2 provides an overview of the differences observed in the number of students in each internship group.

Table 2

Frequencies for Career Course Completion and Internship Attainment (n=2,635)

Career Course Group	Had an Internship		Did Not Have an Internship	
	n	%	n	%
Career Course Completed	699	26.5	646	24.5
Career Course Not Completed	619	23.5	671	25.5

Note. The statistics in Table 2 are calculated based all 2,635 student records in this study.

Table 2 shows a mostly even distribution across categories with a slight increase in the number of students with an internship if they had completed the career course. A chi-square test for independence showed a significant relationship between the career course and internship attainment, $\chi^2(1, N=2635) = 4.184, p = .041$. A p value of .041 is less than the specified .05 α level, which indicates that there is a statistically significant difference between career course completion groups when it comes to internship attainment. The χ^2 value is beyond the critical value of 3.84 and the null hypothesis can be rejected in this test of association. However, the borderline nature of this result suggests other influencing factors are likely to be contributing to the internship *outcome*.

Senior Year Outcome Two: Job Attainment

Research Question Three. *Do students who complete a career course obtain employment (at graduation) at a different rate than students who do not?* H₀: There is no association between student career course completion and job attainment. H₁: There is an association between student career course completion and job attainment.

The cross tabulation in Table 3 details how many students had secured a job during the month of graduation, grouped by whether or not they completed the career course.

Students who were not looking for a job, students who went to graduate school full time, and students with an unknown job status were removed from this comparison group. Table 3 provides an overview of the differences observed in the number of students in each job group.

Table 3

Frequencies for Career Course Completion and Job Attainment at Graduation (n=2,260)

Career Course Group	Job at Graduation = Yes		Job at Graduation = No	
	n	%	n	%
Career Course Completed	719	31.8	438	19.4
Career Course Not Completed	559	24.7	544	24.1

Note. The statistics in Table 3 are calculated based on the 2,260 graduates known to be seeking employment upon graduation.

Table 3 shows an increase in the number of students who had a job at graduation if they had completed the career course. For students who did not take the career course, we see a fairly even split between having a job and not having a job at graduation. A chi-square test for independence showed a significant relationship between the career course and a job at graduation, $\chi^2(1, N=2260) = 30.2, p < .001$. The p value of $<.001$ is less than the specified .05 α level and indicates that there is a statistically significant difference between career course completion groups when it comes to job attainment. The χ^2 value is far beyond the critical value of 3.84 and the null hypothesis is rejected in this test of association. This result suggests a significant association between career course completion and job attainment.

Research Question Four. *Is there a correlation between the completion of a career course and employment at graduation?* H₀: There is no correlation between career course completion and job attainment at graduation. H₁: There is a correlation between career course completion and job attainment at graduation.

A binary logistics regression analysis was performed to investigate the relationship between career course completion and employment at graduation. The predictor variable of career course completion was tested and found to contribute to the model, Wald(1, N=2260) = 27.93, $p < .001$. Since the p value is less than the specified .05 α level, a statistically significant relationship between career course completion and job attainment is inferred. In this test of correlation, the rejection of H₀ is supported at any conventional significance level and H₁ is not rejected.

In order to provide context for the correlation found between the career course and employment at graduation, two additional predictor variables, internship completion and GPA were tested alongside the career course predictor variable. For the predictor variable of GPA, Wald(1, N=2260) = 17.79, $p < .001$. For the predictor variable of internship completion, Wald(1, N=2260) = 133.06, $p < .001$. Table 4 summarizes these results to compare the relationship each predictor variable has to the dependent variable, job attainment at graduation.

Table 4*Binary Logistic Regression Test for Course Completion, Internship, and GPA (n=2,260)*

Predictor	B	SE	Wald	Exp(B)	p
Course Completion	.471	.089	27.926	1.602	.000
Internship Completion	1.042	.090	133.055	2.834	.000
Avg. GPA	.381	.090	17.790	1.464	.000

Note. The statistics in Table 4 are calculated based on the 2,260 graduates known to be seeking employment upon graduation.

Average GPA and internship completion were both coded as dichotomous variables. The Average GPA variable was coded such that students were classified as having either an above average GPA or a below average GPA. The Internship variable was coded such that students would belong to either a group that completed an internship or did not. Since all three explanatory variables indicate a statistically significant relationship to the *outcome* of a job at graduation, the odds variables, Exp (B) will be compared to provide additional context.

Research Question Five. *Are students who complete a career course more likely to have secured employment at graduation if they complete a career course?*

The odds ratio, Exp(B) favored an increase for job attainment at graduation. Controlling for the other variables in the model, the odds of having a job at graduation increase by 60% for students who completed the career course. This result implies that the null hypothesis can be rejected and a relationship between the career course and a job at graduation is supported.

Since all three explanatory variables tested in this study were categorical and found to have very low p-values, it is useful to present the odds ratios as probabilities for the sake of comparison. Probability is calculated using the formula: $\text{probability} = \text{Exp (B)} / (1+\text{Exp(B)})$.

The probability of having a job at graduation is 62% higher if a student belonged to the course completion group. However, having an internship shows an even stronger relationship to having a job at graduation. The probability of having a job at graduation is 74% higher if a student had an internship. GPA also contributes to the model with a 59% higher probability of having a job at graduation if a student had an above average (>3.1) GPA. All three of the explanatory variables have strong, positive relationships to job attainment at graduation, which suggest the right variables have been identified and tested. However, more explanatory work is invited here in order to isolate the effect of only the career course. To further investigate research question five, it is helpful to consider the year over year changes to the rates of job attainment and the rates of career course completion for the overall student body.

Table 5 shows each academic year of the study with respective frequencies for students who had a job at graduation and students who completed the career course. The percentage of students who had jobs at graduation remained relatively unchanged for the first three years while the career course phased in. When the majority of the student body graduated having completed the career course, there was a 15% increase in the number of students with a job at graduation.

Table 5*Frequencies for Annual Career Course Completion Rates with Job Attainment (n=2,260)*

Academic Year	Job at Graduation = Yes		Career Course = Yes	
	n	%	n	%
2015 - 2016	240	53	26	5
2016 - 2017	305	51	159	25
2017 - 2018	311	53	423	70
2018 - 2019	422	68	599	92

Note. The statistics in Table 5 are calculated based on the 2,260 graduates known to be seeking employment upon graduation.

It appears that as critical mass is reached with the majority of the student body having had the career course, job attainment rates at graduation rise significantly. This result brings more clarity to the research question, but since GPA and internship completion are significant predictors of employment at graduation, an annual comparison of their rates is necessary to provide added context. Table 6 shows the annual rates of internship completion and the average GPA for each year of the study.

Table 6*Frequencies for Annual Internship Rates and Average GPA (n=2,260)*

Academic Year	Had an Internship		
	n	%	Avg GPA
2015 - 2016	234	52	3.17
2016 - 2017	312	52	3.13
2017 - 2018	301	52	3.15
2018 - 2019	334	53	3.17

Note. The statistics in Table 6 are calculated based on the 2,260 graduates known to be seeking employment upon graduation.

It is notable that the percentage of students who completed internships stayed between 52-53% for all four years of the study. The average GPA also remained relatively unchanged for all four years of the study. The annual rates of internship completion and average GPA are useful to note as a way to put the annual employment rates into perspective. Additional perspective can be provided through an analysis of demographic data. The analysis that follows will consider the potential effects of gender and ethnicity on job attainment at graduation.

Demographic Analysis

Archival demographic data was not available for the years 2015 - 2016. However, demographic data was consistently present for records in 2017 - 2019, which represents approximately half of the students in the population. This provided a sub-population of 1,114 students that serve as a representative sample for an analysis of the potential effects of gender and ethnicity on job attainment at graduation. Table 7 shows frequency distributions for students in each gender category and whether or not they belonged to a minority population.

Table 7
Frequencies for Gender and Ethnicity Sample (n=1,114)

Demographic	Minority		White	
	n	%	n	%
Male	90	8	705	63
Female	51	5	268	24

Very few records were present for individual ethnicities considered to be in a minority population. Additionally, many students in minority categories for ethnicity had associations to multiple ethnicity categories. Given these constraints, Black, Hispanic, Asian, Indian American, and Alaska Native populations were combined into a single minority category in order to meet the minimum n quota for logistic regression. Both gender and ethnicity were coded as dichotomous variables and tested for a correlation to job attainment at graduation using a binary logistic regression analysis. For the predictor of gender, Wald(1, N=1114) = 1.18, p = .238. For the predictor of ethnicity, Wald(1, N=1114) = .238, p = .625. These results are summarized in Table 8 for comparison.

Table 8
Binary Logistic Regression Test for Gender and Ethnicity Sample (n=1,114)

Predictor	B	S.E.	Wald	Exp(B)	p
Gender	.164	.139	1.392	1.178	.238
Ethnicity	-.091	.185	.238	.913	.625

The p-values of .238 for gender and .625 for ethnicity are higher than .005, the 95% significance level used to infer a relationship to job attainment at graduation. Therefore, there is not sufficient evidence present to indicate a significant relationship between gender and job attainment, nor between ethnicity and job attainment. Though this result provides an additional method of isolating explanatory variables, the sample skews heavily toward white males and may not be generalizable outside of this study.

Although the findings presented for gender and ethnicity may not be generalizable beyond this study, the discussion that follows in Chapter Five will offer perspectives on ways in which the data presented may be generalizable and provide additional insights. Nuances of the data will be discussed that will identify important design recommendations for future research concerning internship and employment data. The discussion of these results will also offer implications for career services professionals.

Chapter Five: Discussion, Suggestions for Future Research, and Implications for Career Services Professionals

Summary of Findings

This dissertation describes the results of a four-year study of employment and internship data for business college graduates at Appalachian State University from 2015 to 2019 (N=2,635). As a business career course was phased into the curriculum, approximately half of the students in that population graduated having completed the career course and the other half did not complete the course. This study explores the potential differences between these two groups in terms of short-term *outputs* and long-term *outcomes* as classified by Folsom and Reardon (2003). The research is grounded in this context and from the results, positive effects can be seen in terms of both *outputs* and *outcomes*.

Evidence of *outputs* are observed in this study to describe the short-term effects of a business career course. The primary focus of this research is to use job and internship attainment as measurable, long-term *outcome* variables to assess the effectiveness of a business career course. Including job and internship attainment in the discussion of career course effectiveness is an addition that answers a call from Reardon and Fiore (2014) for more *outcome* research. This study situates employment data as an *outcome* variable in search of possible correlations to a business career course as an independent variable.

A statistically significant correlation was found between comparison groups that suggest the business career course may have contributed to an increased likelihood of job attainment at graduation. Students who completed the career course were 60% more likely to have a job at graduation than students who did not complete the career course. There is significant evidence to suggest rejection of the null hypothesis that *the completion of a career*

course does not have an effect on the rate of job or internship attainment for undergraduate business students at the time of graduation. Similar to Hansen et al. (2017), this research found evidence of significant, positive *outcomes* of a career course.

The results of logistic regression analysis showed three significant correlational relationships with p-values $<.001$ for three predictor variables for the likelihood of having a job at graduation. In addition to career course completion, an exploration of confounding variables found that students who had an internship were much more likely to have a job at graduation. The effect of having an internship was found to be an even stronger predictor of job attainment at graduation than the career course. GPA was also tested as a predictor variable and was found to contribute an effect to the model, but was less likely to predict job attainment at graduation than the completion of the career course. Race and gender were also tested as predictor variables, but were not found to have statistically significant correlations to job attainment.

The findings in this study suggest that a career course is among other contributing predictor variables that correlate to employment at graduation. The positive effects of the career course are found at sophomore, junior, and senior year intervals. Like Majeske and Serocki (2009) and Bear (2016) found, this data converges with the view that career development support across the college curriculum can improve the outlook for the transition to employment. This study adds a discussion of employment data to the career course literature and provides an example architecture of how employment data may be compared, tracked, and assessed. Collectively, these results may provide insight to educational leadership seeking to understand the impact of career courses. Understanding the impact of a career course invites a discussion of nuances involved in the interpretation of these results.

Interpretations

Research Question One

Do students who complete a career course exhibit skills, knowledge, or attitudes that can affect their job or internship search?

The results of the post career course survey contribute measures of *outputs* as defined by Folsom and Reardon (2003) as the “skills, knowledge, and attitudes acquired as an immediate result of a career course” (p. 427). The survey results are somewhat indicative of when the business career course is placed in the curriculum, which is typically sophomore year. For sophomore students, major specific information concerning job opportunities, necessary skills, and work activities is highly relevant information at this stage of their career development. In a 25-year study, Gordon and Steele (2003) estimated that 20-50% of freshmen are undecided about their major and future career. This leads to at least one change of major for 50-70% of students (Gordon & Steele, 2003). The high percentage of students (85%) that report gaining confidence in their major decision as a result of the career course in this study signals that a need was met by providing major specific insights and information.

Out of the students who responded to the post career course survey, 24% reported joining a club as a result of attending Business Club Expo, which was part of the career course. This result is significant because attending this event may serve as a way to encourage more meaningful involvement within the major the student selects. If the student joins a club in the business college as a sophomore, the potential to deepen ties to industry professionals may also increase. Major specific clubs in the business college have a history of close connection with industry professionals. Workshops and networking events are common practices in campus clubs. Amoroso and Burke (2018) emphasize the impact co-

curricular involvement has on networking potential for business students as a way to provide “opportunities to hear first-hand testimonials about the process of establishing successful careers” (p. 424). Career insights developed through regular discussions with industry professionals over the course of two years offers a powerful way to establish professional networks. Club involvement also carries the added benefit of industry specific experiences that may be added to enhance a resume.

Another powerful way for students to enhance their resumes is through internships and part-time work experience. Out of the students who responded to the post career course survey, 59% or 601 students used the resume they developed in the career course to apply for a part-time job or internship. This result is significant because it reveals that even at the sophomore level, the resume was already used by well over half of the students. If previous work experience is assumed to be important for career growth, then it can be inferred that a career course taken as a sophomore can build the foundations for a successful job application as a senior. Furthermore, a resume that is prepared for an internship application has the potential to change the career trajectory of a sophomore significantly. Reports from the National Association of Colleges and Employers (2021) estimate that the conversion rate for interns into full time employment is between 55-66%.

Students will typically complete an internship during the summer after their junior year. It is not surprising that only 4% of the sophomore students surveyed secured an internship at a career fair. Given this, it is possible that a career fair event requirement is premature for a sophomore, especially since career fairs are events typically designed for seniors ready to enter the workforce. However, the benefit of career fair attendance may be delayed. It is possible that the experience, knowledge, and practice that attending a career fair

provides is something that, while not necessarily measured, instills some confidence in navigating that environment in the future. The experience may also provide exposure to career paths and professional contacts that were previously unknown. In a phenomenographic study by Stonebraker et al. (2019), the authors describe student experiences at a career fair as a way for students to relate company information to who they are as a person, identify actionable career steps, and identify how best to impress recruiters. In many ways, attending a career fair as a sophomore is as much about major, self, and career exploration as it is about obtaining a job or internship.

Company research is a precursor for the career fair experience that invites students to prepare themselves with knowledge about companies and what recruiters seek in qualified candidates. The company research assignment that was part of the career course in this study also invited students to investigate value alignment between themselves and the company's stated values. As a result of the company research assignment, 69% of students reported that they discovered companies for which they may want to work in the future. This result is particularly significant because career exploration at this level allows a student to identify the skills needed to obtain the job in which they are interested and attend the career fair equipped with relevant knowledge. Stonebraker et al. (2019) provide a useful metaphor for conceptualizing this process. They compare the preparedness of a student at a career fair to two ways of shoe shopping. One might go about trying on every pair of shoes in the store to decide what is a good fit, or equipped with research, they can go in knowing what kind of shoe might fit best. The latter is arguably the better option (Stonebraker et al., 2019). If the desired skills for a certain type of job can be thoughtfully identified beforehand, the chances

of successfully navigating a career fair are higher and so are the chances of honing in on a career path that aligns with the values, skills, and interests of the student.

Nearly half of the students who completed the post career course survey had used LinkedIn in a significant way. When students learn to engage with professionals in their field as sophomores, their networking potential has two years to increase before they enter the workforce. In contrast, students who create their first LinkedIn account as a senior or not at all, are already a step behind in terms of building a strong professional network. In a study of 119 business students, Peterson and Dover (2014) found that “70 percent of sales and marketing undergraduate students had not developed a LinkedIn profile” (p. 15) prior to the class. Peterson and Dover (2014) sought to use LinkedIn as a method of “offering effective pedagogy that integrates theory with the reality of the professional world the students will join shortly” (p. 15). After introducing LinkedIn in an undergraduate marketing course, the authors reported that students often began engaging with the platform in ways that were far beyond what was required in the assignment and that students often reported employment offers attributed to simply having a professional online presence. Peterson and Dover (2014) confirmed that providing LinkedIn instruction to undergraduates leads to improved employment *outcomes* for students.

Out of the students who responded to the post career course survey, 25% reported the use of the STAR method to prepare for an interview. While this is not necessarily a large proportion of the survey group, it does show that many students were employing techniques they had learned to communicate their skills and experience. Behavioral interview questions for which the STAR method is a preparation tool are often used when recruiters interview college students for internships. This could be another way in which the career course

contributed to internship attainment. Additionally, the practice of and preparation for behavioral interview questions is linked to higher levels of self-reflection and improved academic performance (Lackner & Martini, 2017).

Collectively, the results of the career course survey suggest both practical benefit and inherent value for students. Out of the survey population of 1,027, only 31 students reported that they had not yet used resources provided in the course. The results of this survey align with the broad findings of Reardon et al. (2021) that 93% of *output* research conducted on career courses in the last 5 years report positive gains in terms of *output* variables. For a sophomore level course, these results are significant indicators of the impact an early career course can have. The high rate of positive influence offers support to the notion that *output* variables are “conceptually related to outcomes” (Reardon et al., 2021, p.6) and that the student population in this study developed skills and knowledge that are likely linked to their future job and internship searches.

Research Question Two

Do students who complete a career course obtain internships at a different rate than students who do not?

The rate of students who obtained an internship was marginally higher for students who completed the career course. The chi-square test for independence revealed a statistically significant association between career course completion groups and internship attainment groups. However, the corresponding *p*-value of .041 is close enough to the cutoff value that it suggests the career course was not likely to be the primary driver of internship attainment.

Internship attainment is likely driven by efforts at the level of the academic department, but since this study sought an overall college level analysis, it was outside the scope of this study to drill down to the department level. Internship programs are formalized in academic programs at varying degrees in the business college. However, even though the structure of various internship programs may vary, the majority of students will still search for and secure internships on their own as an initial step.

If a student is unsuccessful in obtaining an internship on their own, a faculty advisor may help connect the student with an internship host that is more likely to hire them. As a result, networking and involvement with faculty and staff may also be a significant driver of whether or not a student obtains an internship. Staff and faculty members have relationships with recruiters and industry professionals that often hire interns. Still, staff and faculty advisors will rely on sharing a resume or LinkedIn profile with prospective internship hosts in order to make introductions. The decision is still that of the internship host. While the career course may not be strongly associated with the internship *outcome*, it likely facilitates the networking process.

An additional factor that limits the measurement of association between the course and internship attainment is that it was not known whether or not a student was seeking an internship during their junior year. If it were possible to remove students who were not seeking an internship from the career course/internship comparison group, a more accurate measure would likely be achieved. This limitation informed the research design for the remaining research questions. Although the measure of association between the career course and internship attainment was somewhat limited, it still revealed an association. This association is not likely revealing the primary driver of internship attainment. However, the

association may suggest that the career course is slightly increasing the rate of internship attainment. The career course may serve as a stopgap for students who are motivated to obtain internships independently.

Analysis of the Gallup-Purdue Index data shows business school students who graduated between 2002 – 2016 with relevant jobs or internships were twice as likely to have a job at graduation (Busteed & Auter, 2017). Even slight increases in internship rates can contribute to the likelihood of having a good job at graduation. This result may be limited in terms of generalizability, but the approach represents a useful method of *outcome* research that is needed in career course literature (Reardon & Fiore, 2014).

Research Question Three

Do students who complete a career course obtain employment (at graduation) at a different rate than students who do not?

When measuring job attainment at graduation, archival data indicated whether or not a student was seeking a job when they graduated. Therefore, students not seeking jobs could be omitted from the comparison groups. This was a necessary revision from the limitations encountered when measuring the association between the career course and internship attainment. The knowledge of whether or not a student was seeking provides more confidence in the measure of association.

The association between the career course/job at graduation comparison groups was significant. The rate at which students obtained employment was substantially higher for the group that completed the career course. This can be seen in the crosstabs and further reinforced by the chi-square test, which yielded a *p* value of $<.001$. Together these measurements provide compelling evidence to support the notion that there was an

association between the career course and job attainment at graduation. These statistical approaches expand possibilities for measuring “resultant effects occurring at some later point in time” (Folsom & Reardon, 2003, p.427). Following this result, further exploration was undertaken to understand the correlation between the career course and job attainment at graduation.

Research Question Four

Is there a correlation between the completion of a career course and employment at graduation?

The results of a binary logistic regression found a strong correlation between three predictor variables (career course, internship, and GPA) and employment at graduation. High GPA and internships are commonly assumed to lead to employment, but it was important to test this assumption as a way to provide context to the study of the career course. The *p*-values for all three predictor variables were less than .001. This supports the assumption that higher than average GPA strongly predicts employment at graduation. The assumption that internships strongly predict employment at graduation is also supported. However, the effect of a career course on employment at graduation is less understood in the existing literature. So, a *p*-value less than .001 for the career course as a predictor variable is a significant finding that answers research question four. There is a strong, positive correlation between the completion of a career course and employment at graduation. This result expands the possibilities for measuring delayed *outcomes* of a career course as defined by Folsom and Reardon (2003). To understand the significance of the career course as a predictor variable, use of the odds variable was necessary to compare it to GPA and internship completion.

Research Question Five

Are students who complete a career course more likely to have secured employment at graduation if they complete a career course?

Since all three predictor variables had p -values of $<.001$, analysis of the odds ratio is the key to understanding the scope of the impact the career course had on employment at graduation as an *outcome*. Analysis of the odds ratio shows that the likelihood of a student being employed at graduation increases by a factor of 1.345 if they had completed the career course. The answer to research question five is yes. Students who complete a career course are more likely to have secured employment at graduation. To add context to this answer, it is notable that the likelihood of employment at graduation is also affected to a lesser extent by GPA and to a greater extent by internships. Given that the association between the career course and internship attainment is known to be significant, there is compounding evidence to support a strong, positive relationship between the career course and employment at graduation. These results are significant contributions to *outcome* research and expands on the recommendations of Reardon and Fiore (2014) to document and understand work and life roles after college.

In order to cross examine the impacts of the predictor variables, an annual breakdown of the rates of employment at graduation was calculated for each of the four years of the study. Internship rates and average GPA were also calculated for each of the four years of the study. The rates of employment at graduation increased as rates of career course completion increased. Employment rates appear to increase after the career course was phased in at 70% of the student body, while average GPA and internship rates remained relatively steady.

Recommendations for Educational Leadership

The positive correlative relationship the career course has to job attainment makes a compelling case for educational leaders who seek evidence to support implementation of a career course as part of a business college curriculum. This study adds to a growing body of research that provides evidence of the long-term positive effects of career courses. However, a careful interpretation of the data is invited to see that a career course is not a panacea. As a singular intervention, it has limitations. The power of a career course likely lies in its ability to catalyze success in programs, events, and other courses that scaffold student success along the way to graduation.

Reinforce Career Development for Juniors

There are several examples of ways in which the career course seeds the future success of students. The increase in the odds of future student success can be found in the internship *outcome* associative data found in this study, but there are also a number of other structures of student career support that may contribute to the *outcome* of job attainment. For example, CTE 3340, *Business Communications* is a Career and Technical Education course that many business students take their junior year. This course includes career development components like cover letter, professional email, resume writing, and more as part of a professional writing curriculum. Courses like this can emphasize, repeat, and reinforce career knowledge in a way that reminds students to practice and further develop practical career skills. Junior level business communications courses offer an opportunity to improve a foundational resume written during sophomore year, pushing student understanding to finer details that can set their application materials apart.

Refine Career Development for Seniors

As a senior, business students take a capstone course, BUS 4000 wherein they engage in the development of an elevator pitch. Since this topic has been covered by the career course and revisited in the business communications course, the refinement of a spoken elevator pitch takes place at a highly relevant moment. Many business students receive job offers as the result of career fairs. Success at career fairs hinges on the ability to deliver a refined elevator pitch and present a refined resume. High quality student resumes and pitches are a recurring theme in the feedback recruiters provide after they attend career fairs at the research site. This is also thought to contribute to job attainment rates at graduation.

Career Development Across the Curriculum

When viewed collectively, a clearer picture of the effects of the career course comes into view. It is a holistic picture where successive stages of career development are formalized in the curriculum, adding up to increases in the rate of job attainment at graduation. These increases are the result of slow and steady efforts of many faculty and staff members, programs, and events that each contribute to the long-term career success of college graduates. There is utility in tracing the steps that contribute to that success. This study traced some of those steps to provide research to support the recommendation of a career course for schools of business seeking to increase job attainment rates at graduation. The recommendation to include a career course comes with a prescriptive note to adopt it as one aspect of a larger culture of support for student career development.

In summary, implementing an early career course is a beginning step to assist students in an intentional start to their career development. It can also increase the likelihood of internship attainment. As students progress to junior year, career knowledge and skills can

be reinforced through business communications courses. As a senior, students can refine their communication skills in a capstone course that guides the delivery of an effective elevator pitch at a career fair. Together, these interventions build a support network of career development that would be difficult to match with any single intervention. Furthermore, the curricular approach ensures that a career development support network is available to all students.

Suggestions for Future Research

It must be noted that the positive effects of the career course described in this study benefited a population that was largely white males. Although correlational relationships between ethnicity, gender, and job attainment were not detected in this study, there is still much to understand concerning the issue of economic justice. In order to meet the n quota for an appropriate statistical analysis in this study, multiple ethnicities were grouped into a single minority category. This approach limits the potential insights that might be drawn from the statistical findings and limits the generalizability of the study. That it was necessary to group ethnicities for a statistically sound analysis points to a larger and more concerning issue.

Black, Hispanic, Asian, Indian American, and Alaska Natives are underrepresented populations at the research site. Additionally, men outnumber women two to one. More work is necessary to explain these inequalities and to understand the experiences of underrepresented populations as they seek enrollment in business programs. Understanding this gap might also lead to a better understanding of challenges that minority populations face when seeking employment at graduation. Possible research questions might ask what types of support those students received, the frequency of their applications and job offers, their individual pathways to employment, and how those pathways were limited. These kinds of

questions may investigate new ways to assess the impact degree programs have on racial equity and job attainment. In a book that details the history of hidden barriers to an inclusive economy, Flynn et al. (2017) suggested that one way to identify inequality is the use of racial equity impact assessments. The authors provide an analogy to environmental impact studies that assess projects in terms of potential environmental harm. Similarly, programs and policies can be assessed for racial inequality “not simply by their intent, veiled or otherwise, but also by their likely outcomes” (Flynn et al., 2017, p. 169). It is necessary to assess and understand the employment *outcomes* of college graduates in minority groups. To do this, a higher degree of granularity is necessary to identify and study sub-groups of the larger population of business students.

Identifying the needs of students in underrepresented populations may also happen in the career course classroom, where individual needs can be noticed. Students with diverse backgrounds may need to be invited to career development work and conversations differently. The unique needs of individual students which may be noticed in the classroom are not always apparent when analyzing data in aggregate. In career courses designed to address employment outcomes, it may be important to notice key differences among students that only happens at the ground level of teaching. If economic justice is the goal of a career course, it is recommended to keep class sizes low in order to preserve the ability of instructors to discern differences among students, their needs, and their entry to career development work.

Further investigation of sub-groups also has the potential to push *outcome* research forward by dividing and studying the student population by major. It may be that variables like internship, ethnicity, or GPA predict job attainment differently for different majors. A

career course might be a strong predictor of job attainment for some majors and not others. Ethnicity may affect job attainment in some majors, even though the effect would be hidden in an overall assessment of the entire business college. A sophomore career course might predict internship attainment differently by major. To understand the relationship between a career course and internships, it is advisable to know if the student was seeking an internship. It may also benefit future studies to know to what degree a faculty or staff member intervened in the internship or job search process in order to explore the impact of networking.

In order to explore the impact of networking along with other potential influences on career development, disaggregating the data is likely to be a necessary next step. This study revealed a correlation to employment at graduation for the entire population of business students. This invites more specific research of the influences on job attainment at the major or program level. For more narrow slices of the population, archival employment data can still enable research of career development interventions over long periods of time in order to discover patterns, trends, and opportunities to improve long-term *outcomes* for college graduates.

Conclusions and Implications for Career Development Professionals

Conducting, analyzing, and discussing archival research matters. Moore et al. (2016) describes archival research as a profound way to connect with the past as “short-hand for everything that has come before, and made us, our lives and the societies we live in” (p. 4). Archival research traces pathways through past work to extract meaning and insight that might bring new clarity to our current questions and understanding. The value that archival research brings to present understanding can ultimately enable the ability to forecast the

impact of future work. As Moore et al. (2016) stated, “understanding even small parts of the past can give us a handle on things in the present and possibly aspects of the future, too” (p. 4). By looking back, we find new ways of looking forward.

During the 2019-2020 academic year that followed this study, college graduates faced new hiring challenges as a result of the economic impact of the COVID-19 pandemic. At the research site, student achievement is commonly measured and reported by Business Career Services in terms of first destination rates, the percentage of college graduates who attain employment, are accepted to graduate school, or state they have achieved their desired career state. First destination rates are tracked for six months after graduation, and these rates fell significantly for the 2019-2020 academic year. The number of students going to graduate school dropped and the number of students seeking employment rose. In addition, the undergraduate commencement ceremony, the primary method of first destination data collection was not held in person. This set of circumstances removed the primary method by which employment data was collected at a moment when it was more essential than ever to know the career status of graduates.

The first destination survey that was historically conducted via a paper survey at the commencement ceremony was largely responsible for the high response rate of 97% for previous years. In response to the cancellation of the in-person commencement ceremony, a digital version of the survey was developed. A report was generated of business students who had applied to graduate and the digital survey was emailed to those students. This approach yielded an extremely low response rate, which was concerning to the career services staff. The less they knew about the job seeking status of graduates, the less they were able to help. In this scenario, archival data proved to be more useful than expected.

The archives of the business career course were cross referenced with the list of seniors who had applied to graduate. Since the business career course was phased in at 100% by the fall of 2019, all of the graduating seniors had LinkedIn profiles and most of them were used actively. Those LinkedIn profiles were matched to each individual student, which provided a new method by which to communicate with graduating seniors about their job search. Students were highly responsive on this platform. Students who were unresponsive to email were responding quickly via LinkedIn. The LinkedIn platform also provided a consistently accurate, passive record for career services staff. Staff could quickly review a LinkedIn profile and decide whether or not to reach out to provide job search assistance. This gave career services staff a targeted and efficient method of bringing assistance to students who needed it and a quick way to record employment information for those who had already secured it.

The result of the established use of LinkedIn and its proactive use likely lessened the negative economic impact on employment rates. Using LinkedIn to reach out to students also resulted in an overall first destination knowledge rate of 93% where email alone would have resulted in a response rate of approximately 15-20%. Out of necessity, graduating seniors in 2020 utilized online networking and communication with recruiters and career coaches more than ever. The early introduction and use of LinkedIn in the sophomore career course and its re-emphasis in the junior level business communications course is thought to have had a positive impact for students weathering the disruptive employment effects of the pandemic. By extension, it seems likely that LinkedIn may serve as a tool to assist students in job searches during other types of economic disruption as well.

In a 2020 post career course survey of 899 students at the research site, 83% reported that they created their first LinkedIn profiles for the course assignment. Over half (54%) of them connected with a recruiter or potential employer during the same semester they took the career course, and many found or applied for internships on LinkedIn. These results suggest LinkedIn is likely a fertile source of future research as a component of career courses. These career course *outputs* related to LinkedIn serve as additional evidence of the impact an early career course can have on long term employment *outcomes*.

Keeping track of accurate employment data has allowed Business Career Services to better understand employment as an *outcome* of the intentional investment in a career course. Business Career Services staff are already looking ahead to the next graduating class and analyzing potential impacts to employment for graduating seniors. As a result, the nature of the work of career services seems to be moving beyond merely reporting employment data.

From Data Reporting to Data Use.

The delivery of career services in higher education has undergone several paradigm shifts in the last century. Economic and technological changes are often the driving forces behind those major paradigm shifts. Dey and Cruzvergara (2014) wrote that paradigm shifts occur approximately every twenty years and that each one, “is connected to changes in economic, political, social, generational, and cultural norms” (p.1). The economic challenges and technological shifts following the COVID-19 pandemic will likely precipitate the next paradigm shift in the delivery of career services much sooner. Dey and Cruzvergara (2014) connected the economic downturn of 2008 to the rise of new questions about the value of a college degree. The economic pressures of 2008 led to a, “new era of employability accountability for colleges and universities” (p. 8). The rise in employability accountability

led to a shift to using employment data to measure the success of career services. By extension, this leads to the use of employability as a measure of the success of career courses, which are often taught by career services staff. However, the notion of using employment data as a means of accountability does not entirely reveal the utility of employment data. Moving a step beyond accountability and employment data reporting, it is possible to see how employment data might catalyze the effectiveness of career services.

Equipped with a better understanding of the past, it is possible to forecast future challenges. Many offers of student internships were rescinded in 2020 due to the pandemic, which largely affected juniors. At the time of this writing, the exact number of rescinded internship offers is still somewhat uncertain. What is certain is that a higher percentage of students will graduate without having had an internship than ever before. It is possible that the full impact the pandemic had on the employment of college graduates has not yet been realized.

The results of this study found that internships are one of the most powerful predictors of employment at graduation. The potential for a steep decline in employment at graduation is a looming possibility that calls for planning and preparation. This study found internships, a career course, and GPA to have significant correlation to employment at graduation. That correlational knowledge can be used to predict which students will likely need the most assistance at graduation. When coupled with a strong, well established multi-year adoption of LinkedIn, the groundwork is in place to reach out to students with a high degree of precision and confidence in a response. At the research site, work is underway to flag graduating seniors who did not perform well in the career course, have a below average GPA, and did not have an internship. Mechanisms are now in place to reach out to those

students before graduation in order to provide the help they need to meet a highly challenging job market. These efforts are made in hopes of responding proactively to affect employment *outcomes* rather than simply report them.

Improving methods of assisting students who are likely to need the most help provides a new level of intelligence in how staff resources are allocated. At the research site, the student to career coach ratio is approximately 1,000:1. The exacting nature of the career services interventions described in this study are not only helpful, but quickly becoming a necessity. They are the eventualities of challenges foreseen by Sampson (2009) and Whiston (2011) who knew that the cost-effectiveness perspective of career services would later arrive as a defining issue in the field. Career services, like many other areas of higher education are often required to do more with less. Increased precision in the delivery of services is ever more necessary, and made possible by the use of employment data.

Recursive Benefits of Employment Data

Understanding archival employment data is enabling new methods of providing proactive career services interventions at the research site. It is also improving methods of providing major and career exploration back in the sophomore level career course, which is now a one credit hour, required course. Company names and position titles are recorded when employment data is collected from graduating seniors. Individual names are removed from the data and job titles are provided to students in the career course to use in the major exploration assignment. In this way students are introduced to regionally specific influences, potential pathways of success, and networking links that led the last graduating class to secure employment. They are invited to extrapolate this data to inform their own decision of major and potential career choices. After the inclusion of real employment data was

introduced in the career course, the percentage of students who reported increased confidence in their major decision as a result of the career course jumped to 96% where it was previously 85%. This provides a useful example of a specific, recursive improvement brought about by the recursive use of employment data.

Despite the overwhelming evidence of the positive effects of career courses, Reardon et al. (2021) are careful to note that “questions remain about exactly why career courses are effective” (p. 9). Long term analysis of employment data coupled with recursive career course improvements like this one may provide a way to better understand why career courses are effective and what design elements might be most beneficial. The answers to those questions are likely to be deeper understood through future research that realizes the living potential of archival research involving employment data.

Multiplicity of Career Influences

Incorporating career courses as part of the college curriculum may provide new value propositions to a college degree in a time when education is more expensive than ever, the job market is highly competitive, and funding for additional career services staff is scarce. Curricular approaches to the delivery of career services offer a possible way to bring career services to larger groups of students who might not otherwise receive them or seek them out. However, career development is a highly individual process involving a wide range of influential variables for college students. Reardon and Lenz (2018), as well as Majeske and Serocki (2009) have emphasized the immense support necessary for implementing effective career courses. The multi-influential nature of career development often requires one on one conversations that can be difficult to have in large class sizes. For those seeking to staff a

career course, smaller class sizes will likely be more effective at dealing with the multiplicity of career influences.

Based on national surveys of postsecondary institutions, Reardon and Lenz (2018) estimate that approximately 36% of universities in the United States offer a career course. For those universities, this study may provide evidence to support resource allocation to them. For those that do not, this study may provide some convincing evidence to adopt them in some way. Adopting Folsom and Reardon's (2003) *outputs* and *outcomes* model as a conceptual framework, this research provided evidence in both effect categories for the impacts of a career course. Using employment data invites new perspectives on *outcome* variables in an area where little research exists.

An abundant amount of research can be found in support of the effectiveness of career courses. Most of that work involves pretest-posttest methods of analyzing changes in students' self-concept in terms of their own view of changes in their career development (Reardon & Fiore, 2014). This presents a need for more *outcome* research to better understand the impact of career courses. As Pryor and Bright (2011) put it, "there is a multiplicity of potential influences on careers" (p. 18). This research seeks to understand career courses as potential influences on careers by presenting employment at graduation as an *outcome*. However, it is duly noted that the multiplicity of career influences involves further levels of association to a number of independent variables present throughout the life of a college student. Archival employment data may serve as a way to understand these variables in new ways. At its best, this data may also benefit students seeking to improve their career readiness as a sophomore. Career readiness infused in the curriculum can also

help students “experience smoother and more successful transitions to the world of work” (Vespia, 2020, p. 171) as graduating seniors.

In the spirit of archival research, at the conclusion of this writing it is appropriate to return to the beginning question of Maverick (1926):

The question whether the class in occupations should be elective or required is a serious one, involving a decision as to whether the college proposes to serve only students who have already come to an appreciation of their vocational problems, or to extend its service to the entire group of students, all of whom will meet the problems (Maverick, 1926, p. 127).

His question stays with career services professionals as they look behind them to the wisdom of their histories, before them in the often-understaffed practice of career coaching, and ahead of them in the application of employment data, uncovered and revisited. The use of employment data as opposed to the reporting of employment data can be a catalyst for moving beyond a compliance mentality into an *outcome* improvement mentality that harnesses the potential of career courses to seed growth and development for all students.

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Vita

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