

Career Services' Contributions to Learning Outcomes of Seniors at a
Research Intensive University

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Abstract

Few empirical research studies have delved into what college students learn by participating in the services offered by career services, specifically one-on-one advising/counseling, workshops, resource use, events, on-campus recruiting and resource library use. This study examined the extent to which college seniors achieve learning outcomes based on the use or non-use of a career services office. Subjects from both groups were compared on both institutional and career development learning outcomes through an on-line survey. They were also compared based on categorical variables including gender, race/ethnicity, undergraduate degree, graduation date, and school of enrollment. A total of 204 (26%) subjects responded to the survey. The results indicated that a B.A. undergraduate degree ($p < 0.05$) and being registered in the study school of arts and sciences and the school of education and social policy ($p < 0.05$) were associated with the use of career services. There was a significant association between the institutional learning outcome “perspective on how my degree will contribute to my overall career” ($p < 0.01$) and the career development learning outcomes “decide on a career field that fits you” and “develop an understanding of how your degree fits in the working world” ($p < 0.05$) and the non-use of career services. For both institutional and career development learning outcomes, the use of resources other than career services had more impact. The only gender difference was for the institutional learning outcome “knowledge about the importance of being engaged in civic activities in the community” ($p < 0.05$) for which females had a higher association than males. Results indicated that the services “on-campus interviews” and “on-line resources” had the greatest impact on users of career services, while “one-on-one advising/counseling” and

“workshops” did not have a significant impact. Learning levels were also found to be similar for users and non-users of career services.

Table of Contents

| | |
|--|-----|
| List of Tables..... | vii |
| CHAPTER I: INTRODUCTION..... | 1 |
| Statement of the Problem..... | 2 |
| Overview..... | 5 |
| CHAPTER II: A REVIEW OF THE LITERATURE..... | 8 |
| Overview of the Review of the Literature..... | 8 |
| Importance of Assessment and Learning Outcomes at the Institutional Level...10 | |
| Accountability and Assessment..... | 11 |
| College and Learning Outcomes..... | 14 |
| Learning Outcome Research..... | 17 |
| Learning Outcomes and Student Affairs..... | 25 |
| Introduction to Student Affairs and Student Learning..... | 25 |
| Educating the Whole Student..... | 26 |
| Accountability and Assessment in Student Affairs..... | 29 |
| Learning Outcomes..... | 32 |
| Student Affairs and Faculty Collaborations..... | 37 |
| Learning Outcomes and Service Learning..... | 39 |
| Challenges Associated with Learning Outcomes..... | 43 |
| Career Services and Learning Outcomes..... | 43 |
| Introduction to Career Services and Learning Outcomes..... | 43 |
| History of Career Services..... | 44 |
| Issues Facing Career Services..... | 46 |

| | |
|---|----|
| Student Affairs, Career Services, and Learning Outcomes..... | 49 |
| National Career Development Guideline..... | 53 |
| Educational Entrepreneur Approach..... | 54 |
| Methodology..... | 56 |
| Identification of Research Variables..... | 56 |
| Learning Outcome-Based Research Questions..... | 57 |
| Rationale for the Research Questions..... | 58 |
| CHAPTER III: OVERVIEW OF THE RESEARCH DESIGN..... | 63 |
| Research Design..... | 64 |
| Population..... | 65 |
| Subject Use of Career Services..... | 66 |
| Career Services Office..... | 66 |
| Sampling Strategy | 67 |
| Description of the Instrument..... | 69 |
| How the Survey was Facilitated..... | 71 |
| Statistical Analysis..... | 72 |
| Limitations..... | 75 |
| Survey Instrument..... | 76 |
| Overview of the Survey Instrument..... | 76 |
| Demographic Questions..... | 77 |
| Learning Outcomes for Undergraduates..... | 78 |
| Career Services Usage..... | 80 |
| The Role of Others in Career Services for Undergraduates..... | 81 |

| | |
|---|-----|
| Service Learning’s Impact on Senior Learning Outcomes..... | 84 |
| CHAPTER IV: RESULTS..... | 86 |
| Descriptive Results..... | 87 |
| Institutional Learning Outcomes..... | 87 |
| Career Development Learning Outcomes..... | 90 |
| Expected Career Status after Graduation..... | 93 |
| Research Questions..... | 94 |
| What Learning Outcome Differences Exist When Comparing Students Who Participate in the Services Offered by Career Services to Those Who Do Not? | 95 |
| Institutional Learning Outcomes..... | 99 |
| Career Development Learning Outcomes..... | 104 |
| What Differences in Learning Outcomes Exist When Comparing Undergraduates By Gender? | 107 |
| What Differences in Learning Outcomes Exist When Comparing Undergraduates by Race/Ethnicity?..... | 110 |
| What Specific Services Have The Most Significant Impact on Student Learning?..... | 122 |
| What Career Development Processes Differences Exist Between Those Who Used Career Services and Those Who Did Not?..... | 128 |
| To What Extent Did Services Gained by Non-Users Through Individuals Not Associated With Career Services Impact Career Development Learning Outcomes?..... | 134 |

CHAPTER V: DISCUSSION, IMPLICATIONS, AND FUTURE

| | |
|--|-----|
| RESEARCH..... | 138 |
| Introduction..... | 138 |
| Summary of Study..... | 139 |
| Discussion..... | 144 |
| Question #1..... | 144 |
| Descriptive Statistics..... | 144 |
| Institutional Learning Outcomes..... | 147 |
| Career Development Learning Outcomes..... | 150 |
| Question #2..... | 153 |
| Descriptive Statistics..... | 153 |
| Institutional Learning Outcomes..... | 153 |
| Career Development Learning Outcomes..... | 155 |
| Question #3..... | 155 |
| Descriptive Statistics..... | 155 |
| Institutional Learning Outcomes..... | 156 |
| Career Development Learning Outcomes..... | 157 |
| Question #4..... | 158 |
| Descriptive Statistics..... | 158 |
| Advanced Statistics..... | 160 |
| Question #5..... | 161 |
| Characteristics of Users of Career Services..... | 162 |
| Question #6..... | 165 |

| | |
|---|-----|
| Descriptive Statistics..... | 165 |
| User to Non-User Comparison..... | 166 |
| Further Research..... | 167 |
| References..... | 169 |
| Appendix A. The Survey..... | 177 |
| Appendix B. First Recruitment Email to Subjects..... | 182 |
| Appendix C. Second Recruitment Email to Subjects..... | 183 |
| Appendix D. Email Reminder to Subjects..... | 184 |

List of Tables

| | |
|---|-----|
| Table 1 Independent Variables..... | 57 |
| Table 2 Students' Response Concerning Institutional Learning Outcomes..... | 89 |
| Table 3 Learning Percentages on Career Development Learning Outcomes..... | 92 |
| Table 4 Descriptive Characteristics of Survey Respondents, by Users and Non-Users..... | 96 |
| Table 5 Comparison between Study Design Designation Users and Non-Users on Institutional Learning Outcomes..... | 100 |
| Table 6 Comparison between Self-Designated Users and Non-Users on Institutional Learning Outcomes..... | 102 |
| Table 7 Comparison between Study Design Designation Users and Non-Users on Career Development Learning Outcomes..... | 105 |
| Table 8 Comparison between Self-Designated Users and Non-Users on Career Development Learning Outcomes..... | 106 |
| Table 9 Institutional Learning Outcomes, by Gender..... | 109 |
| Table 10 Career Development Learning Outcomes, by Gender..... | 110 |
| Table 11 Overall Institutional Learning Outcomes, by Race/Ethnicity..... | 113 |
| Table 12 Overall Career Development Learning Outcomes, by Race/Ethnicity..... | 120 |
| Table 13 Specific Career Services Utilized by Users..... | 123 |
| Table 14 Percentages of UCS Services..... | 126 |
| Table 15 Paired Sample Results for UCS Services..... | 128 |
| Table 16 Percentages of When Self-Identified Users First Used Career Services..... | 129 |

| | |
|---|-----|
| Table 17 Frequency of Times Self-Identified Users sought Career Services for Career Advice..... | 130 |
| Table 18 Response Percentages for not using University Career Services (UCS)..... | 132 |
| Table 19 Response Percentages of Others Sought for Career Advice..... | 133 |
| Table 20 Frequency of Times Others were Sought for Career Advice..... | 134 |
| Table 21 Percentage of Learning Experienced when Services were Offered by Non-UCS Sources..... | 137 |

CHAPTER I

INTRODUCTION

The topic of learning and assessing the outcomes students gain from classroom instruction is a major strategic planning and academic issue for much of higher education. The degree to which institutions emphasize and place effort into examining these issues depends upon the institution as well as a number of internal and external factors, including institutional mission, budget, personnel, government, and the public. Learning and the assessment of learning outcomes have become issues not only for academic programs, but they are also becoming high priorities for the division of student affairs.

This dissertation begins by identifying the purpose of the study and its relevance to current research on higher education. After providing the statement of the problem, a review of the literature will be presented, followed by the identification of the independent and dependent variables, and a list of the research questions. Despite the research studies conducted on the career development topics of career courses, assessment, and career counseling, there has been little significant research on how specifically career services offices and their offerings affect college student learning outcomes. This suggests that there is little significant research on what undergraduates learn from these offices and what impact this learning has on their career development and college experiences. This dissertation concludes with a description of the methodology of this study, how it will be executed, and the rationale for particular steps.

Statement of the Problem

The state of U.S. higher education today should be a cause for great concern amongst all Americans. The once globally dominant force in postsecondary education has become complacent and has observed other countries surpass its accomplishments (Spellings Commission, 2006). A call has been set forth to incite significant reform and change. Although the impetus of change and improvement in higher education has been a focus for some time, federal and state governments have paid attention to the findings made by the Spellings Commission (2006). The Spellings Commission (2006) represented a group of leaders from higher education, government, policy, and business and industry that were appointed by the US Secretary of Education, Margaret Spellings, to examine the current state of U.S. higher education. The commission's goal was to complete this review of U.S. higher education, specifically examining issues of access, cost, financial aid, learning, accountability, and innovation.

American colleges and universities have responded to this call for accountability, although its response has not come without significant competition from other priorities, which include shrinking state budget allocations and increased marketplace competition. As a result, many universities have to make difficult programmatic or operational decisions for their own survival (Kuh, 1993). Of all of the demands that are placed on institutions, accountability is one of the most significant. Accountability demands are made by a number of sources, including accreditation, parents, students, business and industry, and various levels of government (Kuh, 2001). With this pressure, institutions are conducting curricular and co-curricular assessment to gather evidence that they are

providing the service they intended to provide, and that the services contribute to student learning and learning outcomes.

During the mid-1980s, accountability rose out of rising public concern for whether students were learning during their time spent in college (ACPA, 1996; Blimling & Whitt, 1998; Ewell, 2001; Kezar, 1998; Kuh, 2001; NASPA & ACPA, 2004).

Accountability pressure was stimulated by two issues, (a) an already significant concern for educational quality and outcomes at the K-12 level that spread to higher education, and (b) the tendency for business leaders and employers to seek new hires that possessed certain personal skills (Ewell, 2001). Accrediting agencies began to adopt policies that analyzed the effectiveness of institutions and the academic achievement of its students, which evolved into encouraging assessment. Much of the influence by accrediting agencies arose out of the demands by the U.S. Department of Education and their desire to “examine learning outcomes as a condition of recognition” (Ewell, 2001, p.3). State governments then became involved in assessment in higher education, ultimately requiring state-funded institutions to account for their services, which includes learning outcomes. According to Kezar (1998), the shift to assessment and the collection of learning outcomes is part of a permanent philosophical change aimed at maintaining institutional effectiveness, quality, and worth.

The assessment of learning outcomes has become a commonly adopted policy by institutions of higher learning of all types and levels. Significant research has been conducted on learning outcomes at the institutional level (Baxter-Magolda, 1998; Entwistle, 2005; Entwistle & Peterson, 2005; Hussey & Smith, 2003; Miller & Ewell, 2005; and Whitt, Pascarella, Elkins Neshiem, Marth, & Pierson, 2003) and the student

affairs level (Baxter-Magolda, 2003; Blimling & Whitt, 1998; Kuh, 2001; NASPA & ACPA, 2004; Whitt, 2006). A number of significant studies and initiatives have resulted from this research, including the importance of curricular and co-curricular collaboration and partnership between faculty and student affairs.

Assessment of learning outcomes for career services offices has not been examined to nearly the same level. Much of the research is limited, and few researchers have delved deeply into the issue of what students gain by participating in career-oriented services. There has been analysis of career-oriented courses and how participation increases student development and learning outcomes (Folsom & Reardon, 2001; Folsom, Peterson, Reardon, & Mann, 2002; Peng, 2001; Reed, Reardon, & Lenz, 2002). Additionally, Brown (2006) examined the usefulness of the educational entrepreneur model, which is a fusion of business strategy and customer service. This model was designed to attract students to career services offices and increase student learning. Another example of current career-oriented research is the *National Career Development Guidelines* which were developed by the National Occupational Information Coordinating Committee and were based on Bloom's Taxonomy (1956, as cited in America's Career Resource Network, 2004). These guidelines contain a set of goals with 200 indicators and three domains intended to assist career professionals in designing programs or services that will cultivate student learning (America's Career Resource Network, 2004).

With these points in mind, there is little research on what students learn and what skills they develop by participating in career development-oriented services as a whole. Despite the previous work on assessing learning outcomes related to career-oriented

courses, more research is needed to evaluate specific career counseling services, events, and other services in a college setting. No comprehensive data exists on what exacted seniors are learning based on their use of career services in a university setting. Relevant articles on assessing learning outcomes from career counseling can be found, however, all are meta-analyses and not first order empirical studies. Fretz (1981), Maguire and Killeen (2003), and Oliver and Spokane (1998) reviewed previous studies on career counseling and outcomes of those services. Although these articles provided useful information on learning outcomes, the results pertaining to the specific offerings provided by career services was not compelling. The need for research and assessment on what students learn from the use of a career services office will not only benefit the career services office itself, but it will answer accountability demands with solid evidence that students do learn at all levels of their college experiences. Furthermore, they are given skills that will make them more marketable and more effective in the world of work, which can raise the public's confidence in higher education.

Overview

The need to assess learning outcomes at all levels of the academy has become a mission critical enterprise, as colleges and universities respond to the growing demands of multiple stakeholders. These learning outcomes may be utilized as evidence of department or unit effectiveness and value to students and institutions. This issue is controversial because university administrators have developed initiatives and sometimes made requirements that academic and student affairs departments gather learning outcome data through assessment. In some institutions and areas, it is not an issue to

provide the data administration seeks, but for some, this call for data has been met with disapproval and disinterest. In fact, some student affairs staff do not participate in collecting learning outcome data because they lack the training to assess correctly, do not have a role model to use as a guide, and find it less complicated to do what has always been done (Banta, Black, & Kline, 2001). Others have described being caught between bureaucracies and providing students with effective services (Hussey & Smith, 2003). The most significant aspect of the controversy is that noteworthy research has not been conducted by career services professionals on the relationship between their services and learning outcomes, since not all offices are comprehensively engaged in the use of assessment strategies.

On the other hand, administrators, deans, and department heads understand the value learning outcome assessment has for the institution and program. Collection of this data can provide units with a clearer picture of how to improve services provided to students (Kuh, 2001). Assessment data can also provide decision makers with evidence of whether offices or departments are providing services that are achieving the institutional mission or are being productive. Learning outcomes assessment specifically supplies various stakeholders, including state legislators, parents, and employers, with verification that learning occurs and a snapshot of student's knowledge capabilities (Kuh, 2001). Administrators also know that if the results of these assessments are favorable, they can be used to motivate faculty and staff, attract scholars to teaching posts, and it can bring qualified students to the institution. Assessments can impact the results of college rankings, including *U.S. News & World Report* (U.S. News, 2007). Favorable rankings can mean good things for many schools.

Adding to the controversy at the student affairs level, there has been little empirical research assessing what students learn from participating in offered services. Specifically with regard to career services, little has been examined outside of career course assessment and stating that assessment is a major issue in the profession. There have been studies that have examined the outcomes of career offices; however, few have focused specifically on career services (Fretz (1981); MaGuire & Killeen (2003); Oliver & Spokane (1998)). Chapters one to three will present a research plan for assessing the learning outcomes obtained by undergraduate college students, specifically comparing senior students who use career services to those who do not. Furthermore, this research will identify the level of learning students receive from the interventions offered by career services as well as identify any specific learning outcomes.

Chapter two begins by summarizing the research literature pertaining to the topic of college student career learning outcomes. A description of each independent and dependent variable will follow the literature review. The identification of each variable will direct the review of the pertinent literature on learning outcomes at the university, student affairs, and career services level as well as guide the study. This approach displays the genesis, evolution, and current status of learning outcomes assessment in higher education, but specifically on career services. Chapter three will present a complete description of the intended methodology for this research project. Included in this methodology are explanations of the research design, questions, populations, sampling procedures, instrument, analysis procedures, and rationales for all pertinent areas. Chapters four and five will present the results and analysis of this study.

CHAPTER II

A REVIEW OF THE LITERATURE

Overview of the Review of the Literature

First, this literature review will focus on and discuss the role of assessment in higher education, specifically the collection and analysis of learning outcomes data. The examination will address the importance of learning outcomes to colleges and universities, the division of student affairs, and at the focal point of career services offices. More specifically, it will demonstrate what learning outcomes do and can do for whichever unit is collecting and utilizing learning outcomes data. The review will discuss the idea of institutional accountability, what it is, how it spurred assessment, and how it brought forth the genesis of the learning outcome movement (Kezar, 1998). This review will define and identify learning outcomes attached to attending college, as well as any challenges associated with collecting and examining them, specifically trying to compare learning outcomes across institutions and states.

Second, this review will also examine the notion of student-centered learning and the role of assessment for student affairs offices and departments. A brief history of student affairs and the idea of educating the whole student will be offered as a means of explaining the role of student affairs in assessing learning outcomes. The review argues that the assessment of learning outcomes is important to the survival of this profession. Models and plans for the implementation of learning outcome assessment will also be identified.

Finally, this review will examine learning outcomes at the career services level. The assessment of learning outcomes is a relatively new venture for many career services offices, not to mention for the division of student affairs as a whole. Since the inception of accountability and learning outcomes assessment in the mid-1980s, most of the data gathering has occurred within the classroom (Ewell, 2001). Much of the research literature on career counseling has been focused on the outcomes of these interventions namely, education obtained, economic benefits, and job obtainment. Specific research on learning outcomes exclusive to career services has focused on examining career development courses. Until recently, the call for learning outcomes has spread to student affairs, but mostly in the areas of counseling, academic advising, and residential life (Baxter Magolda, 2003). Career services offices have begun to answer the need for learning outcome assessment along with other assessment that is already in place. This literature review will examine the trickle down of assessment, and particularly the inclusion of learning outcomes into career services. According to the National Association of Colleges and Employers (NACE, 2005), assessment and learning outcomes have become a “top issue” for career services offices (p. 28). Greenberg and Harris (2006) also recognized that the assessment of learning outcomes is a critical issue. In fact, there is a focal shift in the career services profession toward career education and away from a more placement role. With this shift, learning outcome assessment becomes more and more important to meet accountability demands. An examination of the different forms of learning outcome assessment for career services, the educational entrepreneurship model, and an analysis of existing leaning outcomes will be presented. The analysis will conclude by examining the current research on learning outcomes for

career services offices, which has historically centered on career development courses. Learning outcome research and research questions will be identified and presented for consideration.

Importance of Assessment and Learning Outcomes at the Institutional Level

Assessment in higher education begins with examining the institution at the university-wide level, where most of the policies and data collection parameters are created. This section begins with the establishment of accountability, why the assessment movement developed, and how assessment relates to learning in the classroom.

The literature delves deeply into the outcomes students develop from college attendance. There are a number of articles that explain these outcomes and a list of these college attendance outcomes are presented along with a definition of outcomes. The outcomes presented include topics such as citizenship and democracy, leadership, and tolerating ambiguity. Many of these outcomes pertain to interpersonal and intrapersonal skills. This section will transition into the topic of learning outcomes, especially what they are and their role in the context of career services.

The final part of this section highlights and analyzes significant research on assessment and learning outcomes at the university level. Topics such as standardization and inter-institutional comparison, an analysis of selected state learning initiatives, and any learning differences that existed between men and women are presented. These topics provide an overview of salient issues faced by institutions.

Accountability and Assessment

Three of the most significant challenges institutions of higher learning face as they educate students include accountability, operational costs, and competition. State legislators, accrediting agencies, parents, employers, and students make accountability demands to determine if the services these schools provide are of high quality and are what they claim to be (Kuh, 2001). These individuals and organizations are in essence acting as consumers of the product higher education provides (Ewell, 2001). As consumers, these stakeholders want to be fully informed about the product they are purchasing and want to shape the package in which it arrives. In addition, there is concern for escalating operational costs, especially with increasing prices of energy and insurance. Utility and insurance costs have steadily risen in the past decade, so much so that some institutions have needed to increase endowment targets and augment revenue streams where applicable (Bienen, 1996, 2004, 2005, 2006). Schools also need to be concerned as well with how they are performing in comparison to like institutions as they attempt to secure a piece of the marketplace (Kezar, 1998). *U.S. News & World Report* rankings are an important part of the equation each school needs to formulate to find an acceptable position in that market. Of the three challenges, accountability and assessment have taken center stage and have become one of the mission critical focal points for the higher education enterprise (NACE, 2005).

The mid-1980s was identified as the starting point for accountability and the assessment movement. The concerns from industry and for quality K-12 education were the elements that motivated colleges to respond to public concern. Assessment became an important vehicle for institutions to meet these concerns, as well as the requirements of

accreditation and program review. According to Ewell (2001), assessment refers to “the collection and use of aggregated data about student attainment to examine the degree to which program or institutional-level learning goals are being achieved” (p.7).

As assessment began to offer institutions a means to provide data and evidence for accreditation, accrediting agencies began investigating the need for colleges and universities to gather learning outcomes. The U.S. Department of Education was the initial influence on accrediting organizations to start incorporating learning outcomes into their accreditation requirements. In fact, learning outcomes assessment was seen as a primary means of gauging higher education’s effectiveness and offers institutions a map for improvement (American Association for Higher Education, 1991). It also served as an internal evaluator where schools could examine performance and cost-effectiveness.

During the accreditation review process, there are three primary dimensions that guide accrediting agencies when assessing student learning outcomes. Ewell (2001) defines these dimensions as the following: “(a) prescription of outcomes; (b) unit of analysis; and (c) focus on review” (p.11). Prescription of outcomes refers to what extent an accreditor states specific learning outcomes; unit of analysis refers to the amount of concern an accreditor has for either individual or overall student attainment; and focus of review refers to the extent the review identifies evidence of achievement or is related to the institution assuring adequate levels of student attainment. These dimensions are used to determine how colleges are evaluated for how learning takes place inside and outside of the classroom, and how they handle this level of accountability.

One benefit that assessment of learning outcomes provides institutions is a snapshot of institutional quality. Determining institutional quality can be beneficial

because it can assist with student recruitment, faculty hiring, government grants and funding, interest by industry, retention, and endowment growth. Assessment can also be viewed as a change in the way success is defined in academia. In other words, college quality should be viewed by the strength of each institution's learning outcomes and not by reputation or how they are perceived (Astin, as cited in Kezar, 1998). Bresciani (2002) and Kezar (1998) suggest that by assessing both academic programs and co-curricular programs, institutions will be able to gain a clearer understanding of who they are and what they offer. Furthermore, institutions can maintain a standard of quality by integrating a policy of continual assessment into standard operating procedures.

Kuh (2001) supports the concept of tying institutional quality to the assessment of learning outcomes, but takes this idea a step further by stating that assessment and the collection of learning outcomes data not only improves quality, but also helps to shape policy and improve undergraduate education in general. Along with colleagues, Kuh (2001) established the National Survey of Student Engagement (NSSE) to gather more in-depth data on learning outcomes. Through this project, there has been not only the establishment of five benchmarks for student learning, but also there is evidence that suggests that if faculty and staff view this data, they will be more likely to change pedagogy or policy to support learning and its outcomes. The five benchmarks included “(a) level of academic challenge, (b) active and collaborative learning, (c) student interactions with faculty members, (d) enriching educational experiences, and (e) supportive campus environment” (Kuh, 2001, p.11). Efforts such as this will further contribute to institutional quality and satisfy the call for academic accountability.

In the early 1990s, a group of higher education scholars formed a committee that examined student learning and determined what constitutes effective learning assessment. This committee consisted of a number of prominent scholars, including Alexander Astin, Trudy Banta, Patricia Cross, Peter Ewell, and Margaret Miller. The result of these meetings was a coherent list of nine principles of good practice for assessing student learning (American Association for Higher Education, 1991). Institutions can use these principles for benchmarking and evaluating their academic and nonacademic programs as well as for learning outcomes. These nine principles include:

- “The assessment of student learning begins with educational values
- Assessment is most effective when it reflects an understanding of learning as multidimensional, integrated, and revealed in performance over time
- Assessment works best when the programs it seeks to improve have clear, explicitly stated purposes
- Assessment requires attention to outcomes but also and equally to the experiences that lead to those outcomes
- Assessment works best when it is ongoing, not episodic
- Assessment fosters wider improvement when representatives from across the educational community are involved
- Assessment makes a difference when it begins with issues of use and illuminates questions that people really care about
- Assessment is most likely to lead to improvement when it is part of a larger set of conditions that promote change
- Through assessment, educators meet responsibilities to students and to the public” (p. 1-2)

College and Learning Outcomes

Much of the discussion of assessment has centered on the outcomes that students gain through their education. Those who hold higher education accountable for instilling outcomes into the curriculum, also have an idea of what those outcomes should be. A number of sources have identified and listed the intended outcomes of college attendance. In *Learning Reconsidered: A Campus-Wide Focus on the Student Experience* (2004), the

National Association of Student Personnel Administrators (NASPA) and the American College Personnel Association (ACPA) identified a comprehensive list that embodied much of what was presented in the university level literature. These outcomes include:

- “Engaged citizenship, community service, social justice, and participatory involvement
- Career planning
- Ethical approaches to business, relationships, problem-solving, and conflict
- Practical leadership
- Emotional intelligence
- Critical thinking, evaluating sources of information
- Informed decision-making
- Working in teams and groups, conflict resolution
- Cultural competency and cross-cultural understanding
- Tolerance of ambiguity” (p. 24)

These college outcomes not only assist with assessment, but they are used to formulate an institution-specific list of desired learning outcomes.

A college outcome can be defined as something that happens to a student as a result of his/her attending an institution of higher education (Ewell, 2001). Learning outcomes on the other hand are different; they are developed as students participate in the learning of life process, which often consists of reflection, integration, and application (Brown, 2006). The uses of learning outcomes at the university level are three-fold, and they have two levels of meanings: (a) for state governments, (b) for universities, (c) and for students. Miller and Ewell (2005) examined learning for all U.S. states and provided a report card on each state’s progress in a document called *Measuring Up*. For the state governments in this report, learning outcomes inform policy makers with information on how much educational capital states possess, so that these states can assess how well they compete across the country with other states and in the global marketplace. In addition,

state governments can use the data internally to determine how effectively each of their institutions is contributing to its overall educational capital. It can also benchmark against other states and itself, and it can address the mandate of accountability without needing federal involvement (Miller & Ewell, 2005). At the university level, learning outcome data can be used to answer accountability demands, as a vehicle for self-improvement, a means of evaluation, and a public relations tool. In fact, learning and its outcomes have become one of the most important and dominant issues in higher education that shapes policy and communicates institutional purpose, according to Hartley (2001).

In association with the college outcomes that were set in 2004, NASPA and ACPA drafted a list of student learning outcomes that reflected how students assimilate and utilize the information they gained from curricular and co-curricular activities. These learning outcomes have similarities to college outcomes; however they integrate the concepts of knowledge acquisition, assimilation and application into their list. The learning outcomes they developed include:

- Cognitive complexity
- Knowledge acquisition, integration, and application
- Humanitarianism
- Civic engagement
- Interpersonal and intrapersonal competence
- Practical competence
- Persistence and academic achievement

When these outcomes are assessed, the data that colleges collect should be deeper than that from survey results that were gathered at one point in time; it should be a longitudinal review of student work over an extended period of time (Ewell, 2001). Thus, the role of assessment should develop parallel to that of learning outcomes. Assessment would not be completed solely at the end of a student's college career: it should be

planned and recorded as the students progress through each class level to maximize validity. The data gathered through assessment could also be used for institutional improvement.

It is also significant for institutions to take note of which services or pedagogical frameworks count as evidence of student learning. According to Ewell (2001), there needs to be comprehensive or capstone exams and assignments; performance on external or internal licensure exams; authentic evidence of learning; student portfolios gathered over time; and samples of student work. The evidence identified by these points can be gathered at a number of levels, including individual students, groups or an aggregate number of students, through courses, programs or schools within a particular college, institutional level, and any combinations of these points. Institutions should be careful in crafting assessment strategies so the data they collect are usable and that processes used do not waste time and effort.

Learning Outcome Research

There have been a number of studies that have focused on learning outcomes and the assessment of learning outcomes at the university level. One of the most consistent topics from the literature revolves around how learning outcome assessment results can be standardized so that institutions and governments can compare one institution to another. Entwistle (2005) examined the existing variety of learning outcomes that are used in higher education and the differences between learning outcomes from different subject areas. In this study, Entwistle (2005) described how it is becoming more and more difficult to compare learning outcomes across higher education, even when the

same subjects and levels are studied. The five subject areas Entwistle (2005) examined included: (a) biological sciences; (b) economics; (c) electrical engineering; (d) history; (e) media studies; and (f) music. In the explanation of each subject, how students learn, and its learning outcomes, Entwistle (2005) demonstrated how vast and different each one was from the other. Some similarities were discussed; however, it was clear how challenging it is to compare learning outcomes and learning from subject to subject. For example, it was identified that biology requires students to completely understand numerous clearly defined concepts that are often abstract and potentially difficult to grasp. According to Entwistle (2005), there are a number of issues that make this comparability difficult, specifically because there are different missions, assessment procedures, marking criteria, balance between coursework and examinations, and the difficulty and unevenness of the institution's moderation of work that are marked by different staff examiners. Another reason there is difficulty in comparing learning outcomes across subject areas is different ways students grasp the concepts and the weight those concepts have on learning. Certain subjects contain what Entwistle (2005) called "threshold concepts", where certain concepts are difficult to grasp, but once they are, the whole subject is easier to learn. These threshold concepts make comparison of learning outcomes complex, but further research could unlock methodologies for completing that task.

Similar to Entwistle (2005), Hussey and Smith (2003) found it difficult to compare student learning outcomes across subjects or amongst the students themselves. Their study also found direct and complete comparisons of learning outcomes to the same extent as Entwistle (2005), and concluded that achieving those outcomes is an

impossibility. Hussey and Smith (2003) pointed out that since there are great differences between individuals within classes and across subject areas as well as certain characteristics of classes, it is challenging to make any comparison. In order to increase potential comparability and usability of learning outcomes, Hussey and Smith (2003) suggest reframing them to reflect more realistic teaching and learning and finding ways to increase student motivation.

Hussey and Smith's (2003) article also examined learning outcomes from the instructor perspective and how these outcomes should be used for improving teaching rather than for bureaucracy and accountability. Too often learning outcomes are utilized for these purposes and do not address pedagogy. Within the study, Hussey and Smith (2003) recommended moving learning away from student-responsive learning, where students have control of what is learned. This style makes the instructor seem indecisive, lacking direction, and leaving students to feel uncertain about what is happening in the classroom. A more effective strategy for learning is to have the locus of control with the teacher. By utilizing this methodology, outcomes can be safely designed, executed, and evaluated. Outcomes can be controlled and be more useful for comparison plus, they can be more easily used for university administrators as well as external constituents.

In their study of assessing learning amongst American states, *Measuring Up*, Miller and Ewell (2005) worked to create a nationwide comprehensive set of "data on college-level learning that could be used to compare state performance" (p. 2). Some researchers state that learning outcome data is not comparable between institutions and states, mostly because of what is collected and how it is reported (Entwistle, 2005; Hussey & Smith, 2003). Miller and Ewell (2005) painted a different picture on

comparability and stated that it is possible as long as states utilize their model of learning outcome collection and analysis. This model consisted of three overall themes: “literacy levels of state populations, graduates ready for advanced practice, and performance of college education” (Miller & Ewell, 2005, p.8). In addition to utilizing the model, Miller and Ewell (2005) concluded that effectiveness depends upon leadership, hard work, modest funding, and resources.

Coinciding with the challenges of comparing learning outcomes amongst students, there are additional difficulties with comparing outcomes between males and females (Baxter Magolda, 1998; Kuh, 1993; Whitt, et al. 2003). In fact, according to Whitt, et al. (2003), there are distinct gender differences when studying outcomes and the factors that influence outcomes. In this case, Whitt, et al. examined college students’ scores on the Collegiate Assessment of Academic Proficiency (CAAP) evaluation over a period of three years in three areas: (a) first-year reading comprehension, mathematics, and critical thinking, (b) second-year writing skills and science reasoning, and (c) third-year reading comprehension and critical thinking. Although some of these variables are cognitive outcomes, the scores from the CAAP indicated that students learn in different ways, especially based on gender where there are distinct differences. Conclusions drawn by Whitt et al. (2003) indicated that in order for gender balance to occur and to maximize learning, institutions need to invest time and effort in making curriculum conducive for all learning styles.

Kuh (1993) supported Whitt et al.’s (2003) conclusions that there are in fact significant learning outcomes differences between males and females. The purpose of Kuh’s (1993) study had undergraduate students, specifically seniors, reflect and comment

on their out of classroom experiences and the impact these experiences had on their learning and personal development. Although Kuh (1993) examined two additional topics in this study, namely asking students about out-of-class experiences and asking what ways they have changed, the gender differences still resonated significantly. Kuh (1993) found that men reported a higher level of change in cognitive complexity, knowledge and academic skills, and altruism and estheticism than women. In fact, gender was the only background variable that held a statistically significant difference in learning outcomes. For cognitive complexity specifically, Kuh (1993) observed that the two scales that comprise this factor, reflective thought and knowledge application, revealed that one-third of the men compared with 17 percent of the women mentioned once that they utilized information from classes in other areas of their lives. Through these studies, it is clear that not all students learn in the same manner and institutions need to consider these differences to make necessary adjustments to curriculum and instruction to increase learning outcome assessment validity and usefulness.

Pascarella and Terenzini (1993) also found outcome differences, as well as similarities between male and female college students. Twenty years of research in higher education were analyzed by Pascarella and Terenzini to identify themes in what students gain from attending college. In their book, Pascarella and Terenzini (1993) examined outcomes including development of verbal, quantitative, and subject matter competence; cognitive skills and intellectual growth; psychosocial changes; attitudes and values; moral development, educational attainment; career choice and development; economic benefits of college, and quality of life after college using six dimensions. These dimensions

include change during college, net effects of college, between college effects, within college effects, conditional effects of college, and long-term effects of college.

Much of Pascarella and Terenzini's (1993) analysis did not focus on specific gender differences for learning outcomes, however, if this variable was examined, there would be minimal impact found when comparing males to females. Pascarella and Terenzini (1993) did find evidence of gender differences with regard to student involvement. Specifically, they identified a study by Winter, McClelland, and Stewart (1981, as cited in Pascarella and Terenzini, 1993) that found a link between participation in varsity athletics and cognitive development for male student-athletes. In this study, critical thinking ability was measured by administering the Test of Thematic Analysis at a selective liberal arts college. Male student-athletes displayed increased scores on this test in comparison to female student-athletes, which indicated an increase in critical thinking development. For these individuals, two cognitive qualities are utilized as athletes, being disciplined and practice and adaptability to rapid and complex changing circumstances, both of which assist in the development of deeper critical thinking. Pascarella and Terenzini (1993) stated that the special experiences these students are subject to are rich in fostering and using adaptive and critical thinking skills.

Similar to the findings of Pascarella and Terenzini (1993), Lehman (1963) also found gender differences in how college students learn and their outcomes. Lehmann (1963) investigated changes in values, dogmatism, stereotypical beliefs, and critical thinking ability in a sample that was followed from freshmen to senior year. A battery of instruments was given to the sample of 1,053 to compare the above characteristics; instruments included the Inventory of Beliefs, Test of Critical Thinking, Differential

Values Inventory, Dogmatism Scale, and the Experience Inventory. The data that resulted from the instruments were considered separately for males and females.

The results of Lehman's (1963) study indicated gender differences in four dimensions of learning. First, although both males and females become less stereotypic in their beliefs over the four years, females tended to make this change at an accelerated rate than males. Second, females were found to be more oriented toward conformity and sociability, in other words doing things to please others. As a result, females appear to be more impacted by external factors when considering their behavior. Thus, their interaction with friends and peers tended to have a significant impact. There was also evidence that females were more open-minded and more receptive to new ideas than males. Third, females had significantly greater heterogeneity in stereotypic beliefs from their freshmen to senior years. For males, there was little evidence that they displayed greater homogeneity of values in anything other than dogmatism in comparison to women. The remaining gender difference found that males tended to have a greater heterogeneity in traditional values and significantly more homogeneity in receptivity to new ideas at the end of the senior year than during the freshmen year.

The differences in learning and learning outcomes that exist between males and females are compelling and there is no denying the impact college has on cognitive development, but there is evidence that both sexes learn with similarity. Pascarella and Terenzini (1993) found that the most significant learning that occurs in students is time from their freshmen year to their senior year. According to Lehmann (1963), critical thinking develops significantly for both males and females from freshmen to senior years and the greatest gains are made during the freshmen and sophomore years. This point is

well-taken since traditionally-aged college students are still developing as individuals, both physically and mentally.

Along with gender differences, race/ethnicity is also a variable that can present differences in learning and learning outcomes. According to Pascarella and Terenzini (1993), there are a number of cognitive and college outcome differences that result when comparing different racial and ethnic groups. One of the first factors that impacts development for students of color, specifically African American students, is attendance at historically black colleges and universities. Pascarella and Terenzini (1993) stated that even though standardized test performance is inconclusive for African American students, attending a historically black college and university has a positive effect on cognitive development and educational attainment. It was also stated by Pascarella and Terenzini (1993) that there is a small positive effect on occupational status and both academic and social self image for African American women.

Pascarella and Terenzini (1993) also examined the impact of education obtained beyond high school and its impact on math and vocabulary scores for different races in their book that analyzed of 20 years of higher education research. The impact of education beyond high school had a positive impact on both math and verbal test scores for all groups except African American males. White students had statistically significant higher verbal and math scores with some education beyond high school. In contrast, when comparing math and verbal scores between different racial groups after four years of college, they demonstrated higher scores. This fact articulates that different races and gender do, under certain circumstances, learn differently and garner slightly different learning outcomes.

Learning Outcomes and Student Affairs

Introduction to Student Affairs and Student Learning

The use and assessment of learning outcomes does not rest solely with faculty and in-class instruction, a complete learning community calls for effort from the entire institution. There are a number of topics associated with maximizing student learning within student affairs including developing programs to educate the whole student, assessment, learning outcomes, faculty and student affairs partnerships, and first-year experience programs that bridge academic affairs and student affairs. These issues are noteworthy for many administrators in fact, building partnerships between faculty and student affairs is an example that has become a significant challenge. The Middle States Commission on Higher Education (MSCHE) (2002) analyzed how institutions in New York, Pennsylvania, and Maryland assessed outcomes. Of the institutions they identified as having effective assessment programs, those with curricular and co-curricular partnerships were deemed to be effective at encouraging student learning (MSCHE, 2002). Partnerships amongst institutional divisions are a distinct advantage for student learning. With this in mind, numerous studies have addressed the role of the division of student affairs in participating in student instruction, learning, and educating the whole student (American Council on Education, 1949; Baxter Magolda, 2003; Blimling & Whitt, 1998; Dale & Shoenhair, 2000; Hartley, 2001; Hu & Kuh, 2003; Kezar, 2001; Kuh, 1995; Kuh, 1993; Lovett, 2006; NASPA & ACPA, 2004; Sandeen, 2004; Rodems & Ahlum, 2006; Whitt, 2006). This section will examine the ways in which student

affairs has supported and advanced student learning, assessment, and the development of learning outcome guidelines.

Educating the Whole Student

Student affairs contributions to student learning have existed since the inception of the profession in 1890, when Harvard President Charles Eliot hired LeBaron Briggs as the dean of students (Brubacher & Rudy, 1997; Sandeen, 2004). When first developed, Mr. Briggs' role consisted of attempting to uphold the traditional values of Harvard. Often, Mr. Briggs and other similar student affairs practitioners' roles evolved, but their roles were nebulous and difficult to define. These new positions did serve as the genesis for the modern student affairs movement and the precursor to educating the whole student and facilitating learning development. From this point, student affairs has evolved into a formidable force within the academy that has a significant impact on what and how students learn outside of the classroom.

In 1937, the initiative to educate the whole student gained momentum when the American Council on Education drafted *The Student Personnel Point of View* (American Council of Higher Education, 1937). This document defined the basic purposes of higher education, which ultimately called for the enrichment and development of the individual. Furthermore, it advocated for the advancement of student learning, as well as defined the profession of student affairs. At that time, educating the whole student consisted of addressing their intellect, emotional make-up, physical condition, moral values, economic resources, and aesthetic appreciations. The American Council on Education included the

importance of assisting students with their career development and job search, which has particular relevance for this paper.

In 1949, the American Council on Education updated this document to include new dimensions, namely realizations of democracy, gaining an international perspective, understanding social issues, and calling for the maturation of each student. This new version accomplished one significant goal: it called for faculty, administrators, and student personnel professionals to appreciate and advocate for the individuality of each student. New conditions were identified for confirming that programs were educating the whole student, and the document also presented service expectations for student affairs professionals. For these new expectations, administrative structures were introduced to better organize what services and programs institutions were offering to students. These administrative structures were those that enabled faculty and staff to interact and work together to facilitate improved student learning. Much of this early work created the framework for modern student affairs divisions and offices.

The new standards that were presented in the *Student Personnel Point of View* were instrumental in shaping student affairs, but they also provided topics for future research. In fact, Kuh (1993) examined how the out-of-classroom experiences of students impacted what they individually identified as important college outcomes. In this study, it was estimated that students gain 70 percent of what they learn through participation in out-of-classroom activities (Kuh, 1993). Kuh (1993) found that students identified the following as important learning and cognitive outcomes of college, “social competence, reflective thought, altruism, autonomy, knowledge acquisition, confidence, practical competence, and self-awareness” (Kuh, 1993, p. 284). There were three additional

outcomes that were identified, but were mentioned least often by the test subjects. One of these less frequently mentioned outcomes was vocational/career competence, which is relevant to the need for career-oriented learning outcomes. Kuh (1993) presented four conclusions to this research; a) experiences outside of the classroom contribute substantially to learning outcomes; b) knowledge acquisition and academic skills were more often associated with within-classroom activities; c) student background characteristics were unrelated to learning, and d) the type of school attended did make a difference with certain learning outcomes. The knowledge that out-of-classroom activities are significant contributors to student acquisition of learning outcomes is providing a stronger argument for supporting student affairs' contribution to learning and educating the whole student, especially those enabled by student affairs practitioners.

A significant volume of research has been conducted on the relevance and role of student affairs in educating the whole student (Baxter Magolda, 2003; Blimling & Whitt, 1998). Baxter Magolda (2003) defined learning in student affairs as “integrating the new with the old, starting from, but transcending, personal concerns and issues and grounded in personal experiences” (p. 232). Hartley (2001) added that learning should include content knowledge in the cognitive and affective areas, which calls for the inclusion of learning contributions from both academic and student affairs. Finally, ACPA and NASPA (2004) reinforced the integration of personal development into the definition of student learning. By having a clear understanding of what learning occurs in student affairs, practitioners have the ability to design learning activities to address the desired learning outcomes.

Accountability and Assessment in Student Affairs

The establishment of a functional definition of learning in student affairs is significant as more and more stakeholders are holding the division accountable for its services. Knowing the meaning of learning at this level can assist practitioners in providing administrators with usable evidence of learning and in developing services or programs that are reaching their intended student populations. In reference to accountability, “our society expects colleges and universities to graduate students who can get things done in the world and are prepared for effective and engaged citizenship” (ACPA & NASPA, 2004, p. 3). In addition to instilling personal and civic responsibility, many colleges and universities face additional challenges, including increases in diversity, enrollments, and marketplace competition as well as decreases in state funding (Blimling & Whitt, 1998). Hartley (2001) asked 16 senior student affairs officers from New England about student affairs and its impact on student learning. In analyzing the results, Hartley (2001) noted that the most significant change in these individual’s practices has been the dramatic increase in accountability for their offices, especially with regard to student learning. Student learning has become an effective way of describing the student affairs role to stakeholders and, one could assume, to document that they are contributing to the institutional mission.

With so many voices calling for accountability, it is necessary for student affairs offices to provide evidence of their worth. This evidence often comes in the form of service assessment (*New Directions in Student Learning*, 2001). According to Anderson (2001), “student affairs is a vital partner in the educational enterprise and could solidify its standing by using accepted assessment processes to provide a real indicator of its

quality and effectiveness” (p. 1). Anderson (2001) further commented on the importance of assessment for student affairs offices. Stating that accountability does not lie only with external constituents, there are internal constituents, including faculty and administration, which do not recognize the significant contribution the division makes to student learning. Prior to embarking on assessment initiatives, clarity on what student affairs offices do and what they seek to accomplish is a beginning, yet effective way to prepare for assessment. Furthermore, student affairs should seek their academic colleagues for collaboration. These partnerships, according to Anderson (2001), should “promote measurable student learning, promote student engagement and socio-academic integration, and provide training to student affairs staff about learning environments and learning outcomes”. Student affairs offices could learn more about assessment and learning outcomes from such activities. These measures would also demonstrate student affairs legitimacy to others on campus, and any collaboration would support the broader educational goals of the school.

Banta, Black, and Kline (2001) supported the notion of assessment with student affairs to appease the public, governors, legislators, and accrediting bodies and for program validation. They advanced Anderson’s (2001) comments by stating that assessment serves as a vehicle for internal program evaluation and improvements. Schuh, Upcraft, and Associates (1996), identified a number of additional reasons why student affairs offices should assess their offices and programs. First, assessment should be done for survival, especially since there is increased competition for decreasing funds. Schuh, et al. (1996) also stated that assessment helps to answer questions about quality, whether or not the institution can afford the program in question, future program development,

gather data for shaping policy, guiding decision-making, and finally, how student affairs can provide evidence to institutional effectiveness for accreditation.

With sponsorship from ACPA and NASPA, Blimling and Whitt (1998), along with ten other scholars, crafted seven principles of good practice in student affairs. These seven principles were originally designed to guide practitioners in their daily work.

Furthermore, they served as a means of assessing student affairs contributions to student learning, their institutions, and for program self-examination. These seven principles include:

- Good practice in student affairs engages students in active learning
- Good practice in student affairs helps students develop coherent values and ethical standards
- Good practice in student affairs sets and communicates high expectations for learning
- Good practice in student affairs uses systemic inquiry to improve student and institutional performance
- Good practice in student affairs uses resources effectively to achieve institutional missions and goals
- Good practice in student affairs forges educational partnerships that advance student learning
- Good practice in student affairs builds supportive and inclusive communities

The fourth principle is particularly applicable to this research because it calls for rigorous assessment of learning outcomes and that rigorous learning environments are key factors in effective programs (Blimling & Whitt, 1998). These seven principles are another example of the increasing importance of assessing learning outcomes in higher education, especially in student affairs.

The value of conducting assessment is significant to student affairs offices, but convincing all staff to gather program data and to evaluate their services is not always easy, according to Banta, Black, and Kline (2001). Assessment tends to be avoided when

staff lacks the necessary skills to conduct assessment, they do not have role models to demonstrate how to assess effectively, and they are avoiding change. Sometimes student affairs practitioners encounter an internal clash between conducting assessment for proving their worth and improving their programs (Ward, 2001, as cited in Banta, Black, & Kline, 2001). Hu and Kuh (2003) added that one of the challenges student affairs practitioners face with assessment is having to become an expert at interpreting and communicating student engagement results to colleagues in their school. Brown (2001, as cited in Bresciani, 2002) added to this opinion by stating that some may think that assessment is just another fad, it may take time away from an already busy schedule, there may be concern about personal benefits, the belief that the results could be used against someone, and others may believe that there is no need for assessment because their program is doing well. If an institution desires to effectively assess what it offers to students, the public, and what students are learning, it will require considerable support from key leaders within the institution to dispel these barriers to encourage change (Bresciani, 2002).

Learning Outcomes

Among the various programs or program components that a student affairs office could assess, the measurement of student learning outcomes has gained prominence in answering stakeholder accountability. ACPA and NASPA (2004) define student learning as “a comprehensive, holistic, transformative activity that combines both student development and academic learning” (p. 2). Ewell (2001) defined a student learning outcome as “the particular levels of knowledge, skills, and abilities that a student has

attained at the end of his or her engagement in a particular set of collegiate experiences” (p.6). The importance of assessing student learning outcomes is not much different than the importance of assessment alone. Bresciani (2002) echoes what was stated by Banta, Black, and Kline (2001), assessing learning outcomes provides credible evidence of program effectiveness and value. Furthermore, learning outcomes assessment provides student affairs offices with the ability for self-assessment and program effectiveness.

The importance of assessing learning outcomes and the attention college administrators are paying to them is causing a paradigm shift amongst student affairs practitioners. With the attention on accountability, student affairs practitioners are moving slowly away from their traditional student development approach to service to one that is focused on student learning. Student development theory was created to provide student affairs practitioners with a specialty within higher education. This specialty was intended to make them different from faculty and allow them to make a contribution to the institution. It essentially worked in reverse, instead of giving student affairs a unique contribution, it moved them away from the academic mission and the rest of the university. In 1996, the *Student Learning Imperative* emerged with a perspective that called for educating students inside and outside the classroom and that incorporated student learning paradigms into student affairs work (ACPA, 1996). This new movement recognized the dual importance of both curricular and co-curricular experiences, which not only encouraged learning outcome assessment, it brought student affairs into closer alignment with the academic program. Although the *Student Learning Imperative* did not diminish the broader student development movement, it served as the impetus for current work in assessment and learning outcomes.

The *Student Learning Imperative* was a call “to create conditions that motivate and inspire students to devote time and energy to educationally-purposeful activities, both in and outside of the classroom” (ACPA, 1996, p. 1). This document beckoned student affairs practitioners to create an environment or conditions to enhance student learning and personal development. This new charge was based upon six assumptions about higher education, which included (a) the characteristics of a college educated person, (b) the concepts of learning, (c) personal development and student development are meshed together, (d) experiences in and outside the classroom foster student learning, (e) student learning occurs between transactions between students and their environments, (f) knowledge and understanding are critical to student success and institutional improvement, and (g) student affairs practitioners should be considered educators (ACPA, 1996).

Along with encouraging the creation of student learning initiatives, the *Student Learning Imperative* provided student affairs practitioners with five characteristics of a student learning oriented student affairs division. These characteristics included the following: (a) making sure the student affairs mission complements the institution’s mission and enhances student learning and personal development, (b) resources are allocated to encourage student learning and professional development, (c) student affairs collaborates with other institutional agencies to foster student learning, (d) student affairs divisions hire staff that are experts on students, their environments, and teaching and learning processes, and (e) student affairs programs utilize and are based on research and institutional specific assessment data (ACPA, 1996). These five characteristics provided practitioners with a guide that will assist them to develop programs, events, and services

that are conducive to learning. The execution of these characteristics will also assist in creating a link to the academic program, thus revealing the value of student affairs work to the institution. Furthermore, the *Student Learning Imperative* places similar emphasis on student learning as Blimling and Whitt's (1998) seven principles of good student affairs practice. Using both sets of guidelines ensures that student affairs programs are reaching their intended populations, making an impact on the learning and lives of students, and facilitating student personal development.

Hartley (2001) supported this approach through an examination of student learning and the work of senior student affairs officers. In this study, 16 New England-based senior student affairs officers were interviewed and asked questions on their perspectives on the institutional role of student affairs, divisional goal setting, and divisional challenges. Hartley (2001) found that focusing on student learning allowed senior officers to more effectively advocate for their offices and it made efforts more meaningful for other constituents. In other words, a focus on student learning provided these individuals with evidence of their office's value and this value could be communicated to internal or external stakeholders. Hartley (2001) also stated that although one subject described his/her division's emphasis on student development, all other subjects commented that their divisions were focused on creating learning environments, promoting student development, and fostering student achievement. This shift toward student learning demonstrated how student affairs is aligning itself with the goals of the institution and establishing itself as a legitimate contributor to the student experience.

The emphasis on student learning and gathering assessment data requires a clearer image of what outcomes and skills students gain through their experiences in college. A number of scholars and documents have identified the particular skill sets that students gain from college (ACPA, 1994; Hu & Kuh, 2003; King, 1999; NASPA & ACPA, 2004; New directions in student services, 2000). King (1999) recognized the following learning outcomes: cognitive skills like critical thinking and application, vocational knowledge, an appreciation and knowledge of human difference, decision making, conflict resolution, sense of identity, aesthetic sensibility, and civic responsibility. NASPA and ACPA (2004) compiled an exhaustive list of student affairs-based student learning outcomes, which added new dimensions to what King stated. These learning outcomes included: “cognitive complexity, knowledge acquisition, integration, and application, humanitarianism, interpersonal and intrapersonal competence, practical experience, and persistence and academic achievement” (NASPA and ACPA, 2004, p. 27). An article on the learning and development of college students, from *New Directions in Student Services* (2000), supported the learning outcomes that were identified by ACPA and NASPA and King, but also posited that “the outcomes of today’s college experience must move beyond knowledge toward enhancing understanding and personal wisdom” (p. 50). The complete learning set must include those characteristics developed at the personal level and many of these items were garnered from experiences outside of the classroom, including student affairs services.

Student Affairs and Faculty Collaboration

In order to better assist students in gathering the outcomes stated in the previous section, a number of studies and articles emphasized the importance of collaboration between faculty and student affairs practitioners (Banta, Black, & Kline, 2001; Baxter Magolda, 2003; Hu & Kuh, 2003; Kezar, 2001; King, 1999; Kuh & Banta, 2000; Lovett, 2006; NASPA & ACPA, 2004; *New Directions in Student Services*, 2000; Rodems & Ahlum, 2006; Whitt, 2006). According to Whitt (2006), schools that want to accentuate student achievement, satisfaction, persistence, and learning must have competent student affairs practitioners who can contribute to the academic mission of the college in ways that support student learning and goals. However, it is not good enough to just have competent student affairs practitioners, it is also important to have faculty who are open to collaboration and who work toward bettering student learning. This section will identify the linkage between student affairs and faculty and its impact on student learning, the success of first year experience programs, why institutions seek these linkages, and any barriers that can derail such partnerships.

Kezar (2001) conducted an analysis of a study completed by the Educational Resources Information Center Clearinghouse in Higher Education, NASPA, and ACPA on student affairs and faculty collaborations and the impact such collaborations had on student learning. The study that Kezar (2001) examined was based on a survey of 260 chief student affairs officers on the following areas:

- Student affairs involvement in institutional-level decision-making
- The reasons for collaboration
- The types of collaborations that exist
- What made these collaborations successful
- What new structures or models were used to facilitate collaboration

- What strategies were most successful
- Obstacles for collaboration
- Outcomes assessment of collaborative efforts
- Institutional characteristics

The survey used in this study was designed to examine trends in the areas of institutional type, size, types of student, campus cultures, and structures that were believed to impact the success of collaboration. The results of Kezar's (2001) analysis indicated that such collaborative efforts did have a statistically significant impact on enhancing and encouraging student learning. The most successful collaborative efforts were found in first-year experience programs, counseling, recruitment, and orientation programs. Of these successful efforts, first-year experience programs fared particularly well. Kezar (2001) speculated this to be true because institutions find the first year to be particularly important for student development, and that regardless of the perceived reason, first-year experience programs provide administrators with ideas of where collaborative efforts would be most beneficial to students.

Collaborative efforts between curriculum and co-curriculum were also found to promote each other's success. Essentially when curriculum is supported by co-curriculum, or vice versa, that particular program will have greater success at facilitating student learning. Kezar (2001) identified reasons why institutions are engaging in faculty and student affairs collaborations. Specifically, colleges that use collaborations are those who seek learning as a priority, they want a collegial environment, managerial accountability, and new leadership/leadership philosophy. On the other hand, Kezar (2001) stated that there are barriers to effective collaboration. The most common include lack of faculty or staff time, faculty disciplinary ties, faculty resistance, low

administrative support, and lack of established goals. Kezar's research did not find reliable data to demonstrate the outcomes of collaboration, however Kezar (2001) stated that the following were potential collaboration outcomes: improved learning environments, increased retention, enhanced institutional communication, culture of trust and better campus relationships, and the collaborative efforts of student affairs practitioners.

Banta, Black, and Kline (2001) also reported that collaboration between faculty and student affairs practitioners increased student learning. Their examination of these linkages targeted how they impacted assessment and data collection of outcomes. Anecdotal conclusions suggested that faculty and student affairs partnerships would create a learning environment that would improve the assessment of learning and cognitive outcomes.

Learning Outcomes and Service Learning

Student affairs and faculty partnerships strengthen learning by the unique combination of learning goals and implementation strategies from both inside and outside of the classroom. A similar example of learning and partnerships is service learning, Bonsall, Harris, and Marczak (2002) also found that partnerships have a positive impact on learning. Many of the service learning programs place students in faith-based or human service non-profit opportunities, which offer students a chance to develop leadership skills and a chance to impact their communities. Service learning programs are often coordinated by either student affairs practitioners or by faculty. Bonsall, Harris, and Marczak (2002) examined a number of studies surrounding the issue of the learning

outcomes gained by participation in service learning and they identified programs that have made significant contributions to student learning. In one of the studies Bonsall, Harris, and Marczak (2002) analyzed, Astin and Sax (1998, as cited in Bonsall, Harris, & Marczak, 2002) confirmed the positive relationship of service learning and classroom learning. In fact, Astin and Sax stated that service learning substantially contributes to academic development, life development, and sense of civic responsibility. Astin, Vogelgesang, Ikeda, and Yee (2000) reaffirmed Astin and Sax's findings, but also stated that service learning had a significant impact on outcomes, such as academic performance, values, self-efficacy, leadership, choice of career, and plans to participate in volunteer activities after college. These types of experiences are similar to internship programs offered by some academic departments and career services offices. Programs such as these also align with the learning outcomes presented by NASPA and ACPA (2004), specifically the areas of humanitarianism and civic responsibility.

The value of service learning programs, as presented by Bonsall, Harris, and Marczak (2002), was further supported by the results of the Cooperative Institutional Research Program (CIRP) (Astin & Vogelgesang, 2007; Astin, Vogelgesang, Ikeda, & Yee, 2000). The CIRP survey is the oldest longitudinal study of higher education and college students in the United States (Higher Education Research Institute (HERI), 2007). The CIRP began surveying freshmen and then moved to assessing these students during their four years in college. In the past 40 years, the CIRP "has so far surveyed some eleven million freshmen at more than seventeen hundred institutions, as well as 400,000 faculty" (Astin, 2003, p. 21). Participating institutions use the results of the CIRP to address some of the most pressing issues in higher education specifically, affirmative

action, diversity, and multiculturalism; institutional change and transformation; service learning; and the role of spirituality in higher education. CIRP administrators have developed a number of follow-up studies addressing issues such as first year experience, post-college plans, service learning, and faculty issues related to service learning.

One of these follow-up surveys supports Bonsall, Harris, and Marczak's (2002) statements that service learning supports student learning outcomes. Astin, Vogelgesang, Ikeda, and Yee (2000) addressed the comparative effects of service learning on the cognitive and affective development of undergraduates, and they examined how learning is enhanced by service learning experiences. This longitudinal study collected survey data from 22,236 college undergraduates attending four-year colleges and universities. Of these students, the majority participated in a course-based community service learning program, while others participated in another form of service learning program, and finally the remaining students surveyed did not participate in any service learning program. Astin, Vogelgesang, Ikeda, and Yee (2000) examined the impact of service learning on 11 dependent measures, including academic outcomes, values, self-efficacy, leadership, career plans, and plans to participate in further service after college. They also studied additional outcome measures for students who had standardized test scores (e.g., GRE or LSAT).

The results of Astin, Vogelgesang, Ikeda, and Yee's (2000) study indicated a number of findings, including significant positive effects on 11 outcome measures including academic performance, values, self-efficacy, leadership, choice of a service career, and plans to participate in service after college. They also stated that student participation in service learning had the strongest effect on career choice, specifically by

influencing students' choice to pursue a service field. Qualitative findings indicated that service learning is effective because it aids four types of outcomes: an increased sense of self-efficacy, an increased world view, increased awareness of personal values, and increased classroom engagement. An applicable learning outcome-related finding indicated that students who participate in service learning develop a heightened sense of civic responsibility and personal effectiveness (Astin, Vogelgesang, Ikeda, & Yee, 2000).

Along with establishing the premise that service learning programs incite and encourage student learning outcomes, Bonsall, Harris, and Marczak (2002) identified a number of higher education-based service learning programs that are successful in fostering learning outcomes. The programs that were reviewed were cited because of their impact on developing young civic leaders. Although there were representative programs from across the country, The *Leadership Development Experience and Mentor Program* at the University of Minnesota stood out. As a part of the LeaderQuest program, this program matches students with recruiting civic and university mentors to develop leadership qualities in undergraduates. This structure offers students with the opportunity to gain exposure to a plethora of learning outcomes including engaged citizenship, career planning, leadership, critical thinking, emotional intelligence, informed decision-making, and potentially cultural competency (NASPA & ACPA, 2004). Through examining service learning and successful programs, Bonsall, Harris, and Marczak, (2002) demonstrate the fact that student affairs offices make significant contribution to student learning through co-curricular and service programs.

Challenges Associated with Learning Outcomes

As student affairs participates in enhancing student learning and has an impact on learning outcomes, the profession should consider related challenges. Addressing these challenges will increase the likelihood of continued faculty and student affairs partnerships and create environments that are encouraging of student learning. A section on learning and development in student affairs, featured in *New Directions in Student Services* (2000), outlined six challenges to inciting student learning, partnering with faculty, and assessment of learning outcomes. These challenges included: “acknowledge that workforce demands are changing, focus on how to teach for understanding, develop and promote a student affairs learning agenda, examine how higher education credentials learning, get serious about assessment, and rise to the challenge of creating a nation of learners” (p. 56-57). According to this discussion, the call for assessment has been around since the beginning of student affairs and had not gained attention until external stakeholders demanded accountability. More significant strides have been taken to increase outcomes assessment, specifically through *Learning Reconsidered* (NASPA & ACPA, 2004) and the *National Career Development Guidelines* (America’s Career Resources Network, 2004).

Career Services and Learning Outcomes

Introduction to Career Services and Learning Outcomes

As any other office within the division of student affairs, career services is accustomed to issues pertaining to both educating the whole student and responding to accountability demands made by internal and external stakeholders, including university

presidents, administration, faculty, staff, students, parents, government, and accreditation agencies. In fact, career services offices have been asked to respond to internal accountability and its associated element, assessment, from the early stages of its existence. Career services offices supply administrators with multiple forms of data, including the number of students who participate in one-on-one career interventions, student attendance at events and workshops, the number of employers posting job opportunities, the number of employers interviewing students on-campus, and the number and type of professional activities of career counselors. The current budget and economic situation facing colleges and universities has presented challenging situations for some career services offices in many public and private institutions. Thus, many career services offices have been forced to collect assessment data in a valid attempt to prove to administration that they are providing students with a valuable service and are worth the cost to provide the services. As any other student affairs office and academic department, assessment and assessment of outcomes is becoming more common.

History of Career Services

The first career services office was opened in 1913 at Northwestern University in Evanston, Illinois. In the early decades of its existence, career services was primarily charged with placing university graduates into jobs in business and industry, but it was not known to be educating its student clients in any structured form. According to McGrath (2002), the 1970s were a time of transformation for career services. Many offices were invisible to the greater institution before then, but in the 1970s career services adopted a comprehensive model that offered career counseling, internship

advising, and job search assistance. During this time, university enrollments began to decline, competition for students began to increase, and the retention of existing students became a significant concern for administrators. As a result, career services offices were asked to assist students to identify their career interests and to gain the skills necessary for finding a job. This new comprehensive model moved career services away from the old style “placement office”, which simply placed graduating students into new jobs, to a full-service enterprise. Helping students to find employment upon graduation was an enticing service that provided viable outcomes for students, since a college degree no longer guaranteed a suitable job with similar suitable compensation. Current career services offices offer students a wide variety of career development services and educational programs that are designed to educate students on how to find and manage their careers. These offices are also a portal for employers to interact with the institution and to hire graduates for jobs and internships.

Career services offices on today’s campuses have sometimes different reporting lines, structures, and staff; in fact these offices often are designed to fit specific institutional or departmental needs. The differences between career services offices begin with reporting relationships. More times than not, career services reports to the division of student affairs in a centralized model. However, at a number of flagship research universities, career services offices can be found in each college or in a decentralized model that meets the needs of two or more colleges. Each of these career services offices reports to a different administrator, centralized offices report to the vice president for student affairs and decentralized offices often report to academic deans.

Career services offices also differ in office structure, and this structure is many times influenced by institutional needs or budgetary issues. All career services offices have a central figure that manages daily operations, and this person is often called a director, but they can also have the assistant dean title. Career services models are consistent with this role, however, structures can have significant variance. Larger offices can have structures that contain associate and assistant directors, as well as career counselors and internship advisors. Smaller offices have more flat structures that often contain career counselors or they are sometimes called career specialists or consultants (NACE, 2005).

The final difference among career services offices is the profiles of the individuals who work in these offices. The most common credential amongst practitioners is a master's degree, but there are offices that have individuals who have bachelor's degrees or other professional degrees. Directors most often have master's degree, however, research universities tend to hire individuals with doctorates. The areas of study for practitioners vary as well; often individuals have degrees in student personnel, counseling psychology, or higher education administration (NACE, 2005).

Issues Facing Career Services

Career services offices have faced a number of issues during its long existence, including being known as an office that only places students into jobs to becoming an educational center that provides students with practical skills and outcomes. According to Rayman (1999), the top issues facing career offices include: realizing that career development is lifelong and that students need to take control of their futures, use of

technology for service delivery, need to strengthen the professional identity of career services within the academy, forge relationships with faculty and administration, meet the needs of a diverse student body, and acknowledge dwindling budgets and the need for continuing to prove the worth of career services. These issues were derived from a book written by Rayman on the topic of career services challenges, entitled *The Changing Role of Career Services* (1993, as cited in Rayman, 1999). Timm (2006) supported Rayman's issue of technology, but expanded on it by commenting on how career services offices have moved from making decisions on whether or not to use technology, to being able to make informed decisions on what to use and how it should be implemented to support service delivery.

The National Association of Colleges and Employers (NACE) (2005) updated the work of Rayman (1999) by identifying the top five issues facing career services, which include accountability, branding, diversity, internships/co-ops, and technology. In their article, NACE (2005) found that career services professionals ranked the issue of accountability to be the most significant, and the one that they address most frequently. More specifically, NACE found the following to be significant components of accountability: measuring the effectiveness of the programs and services that are offered and demonstrating and validating the value of career services to the rest of the institution. The measurement of program effectiveness places particular pressure on career services to provide data that accurately represents what they have done, but also to make sure internal stakeholders find value in those data. Career services offices thus need to find ways of creating services that are recognizable, contribute to the academic program, and have measurable outcomes. Learning outcomes are a prime example of data that a career

services office could gather and contributes to student learning, is recognizable, and have measurable outcomes.

Greenberg and Harris (2006) have recognized that assessment is a critical issue facing career services offices. In their article, Greenberg and Harris (2006) provide an overview of the different types of assessment pertinent to the profession, with the goal of assisting others to enhance their assessment plans. A number of the most common assessment types were presented, specifically demographic data, satisfaction survey, needs assessment, external department reviews, benchmarking surveys, and outcomes assessment, which contain both learning outcomes and measures of student success. All forms of assessment play vital roles in responding to accountability demands. Each one accomplishes different tasks, for example satisfaction surveys and needs assessment inform career services offices on what students think regarding their services and each student's careers. Conversely, external department reviews provide campus administrators with data on the effectiveness of career services in doing what is described in its mission.

With particular relevance to this study, Greenberg and Harris (2006) examined the assessment of student learning outcomes. One important issue raised was the fact that career services offices have moved away from a job placement focus to more career education and job search skill development. With that being the case, career services offices must now validate that students are learning from their career interventions. Greenberg and Harris (2006) described how learning outcome assessment data is gathered from career courses, but they also briefly examined other services. In comparison to career courses, it is more challenging to gather learning outcome data

since the window to capture data is much smaller and is often at one point in time. However, Greenberg and Harris (2006) stated that this data collection is relevant and they described ways to gather it.

Student Affairs, Career Services, and Learning Outcomes

By creating and implementing services and programs that contribute to student learning, career services has followed the path of its student affairs predecessors and placed effort on educating the whole student. Since the first incarnation of *The Student Personnel Point of View* (American Council on Education, 1937), student affairs offices have focused, to some degree, on educating the whole student and contributing to the academic program. Not all student affairs offices have answered this call or have had the mission to support this call. Career services offices were not initially designed to teach anything, they were developed for a distinct function, which was to find graduates a job. With the integration of a comprehensive, career development model, career services offices have become an active participant in educating students on how to decide on a career, pursue experiential education, and search for a job. All of these elements are measurable with outcomes, and they support the student affairs mission of educating the whole student.

Simply creating and implementing new learning-oriented programs and cultivating robust data are not always an easy task for career services. Brown (2006) identified a number of barriers that impede a career services office from reaching this goal. These included the fact that students are not required to use career services, practitioners do not have the consistent time with students as faculty would in the

classroom, they do not have grades for motivation, career services is seen by the services it provides not as a place for student development, offices face competing priorities, and financial resources are limited. These barriers have the potential to significantly slow down career services initiatives to engage in developing student learning, growing learning partnerships with academic units and being seen as active participants in student learning.

Assessing student learning outcomes is a new initiative for career services and not many offices are making concerted efforts to develop measurable programs, collect data, and report outcomes to stakeholders. Much of the literature pertaining to both career services and assessing learning outcomes is focused primarily on career development courses (Folsom & Reardon, 2001; Folsom, Peterson, Reardon, & Mann, 2002; Peng, 2001; Reed, Reardon, & Lenz, 2002). These for-credit classes teach students about career theory and research, and it provides them with essential career development skills. In an overview of existing literature, Raphael (2005) stated that students do learn from career courses and that these courses have an impact on student outcomes and cognitive functioning. In fact, Folsom and Reardon (2001) stated that “there is overwhelming evidence that career courses have a positive impact on student outcomes” (p. 34). Although research has supported that learning outcomes can be assessed from these career courses and that implementing them increases learning, career services professionals need also pay attention to other services they provide. Career courses are a solid contributor to student learning outcomes, but research needs to be conducted on other services to assess the total output of career services offices.

Although research on learning outcomes is limited, an example of a career services office that is implementing a learning-oriented program with measurable outcomes, is the Online Career Portfolio at Kennesaw State University (Andrews & Wooten, 2005). This program offers students an online place to store documents and reflect on experiences pertaining to their education, leadership development, and career development. The underlying purpose of the program is to assist students in developing skills and helping students to realize that they have the ones that are sought by employers.

Bowling Green State University also utilized on-line portfolios as a means of enhancing student learning outcomes (Knight, Hakel, & Gromko, 2006). Bowling Green also saw the importance of inciting deeper level learning activities for its students and on-line portfolios are an effective tool for encouraging it. Bowling Green's portfolio differs from the one that Andrews and Wooten (2005) describe, because Bowling Green offers access to all students at the university, rather than just for those who use career services. On the other hand, both Kennesaw State's and Bowling Green's portfolios provide students with the same opportunity to gain important learning outcomes.

The use of on-line portfolios has been shown to increase student learning outcomes and advance career development. Other forms of interventions have also been found to increase student learning outcomes, specifically career courses, individual counseling, and workshops. Career courses have been shown to be the best means of generating useful learning outcomes because of the duration of time faculty have with students. According to Oliver and Spokane (1988), individual career services and career oriented workshops also have positive effects on students, thus increasing learning.

Furthermore Oliver and Spokane (1988) found through their analysis that individual career counseling interventions had the largest treatment effect of producing learning.

Oliver and Spokane (1988) expanded upon their earlier findings to examine the relation between student characteristics and outcomes. In this article, Oliver and Spokane (1988) performed a meta-analysis of 58 studies from the career counseling literature. They studied 240 treatment-control comparisons that included 7,311 subjects. Oliver and Spokane (1988) conducted an analysis on the broad subject of career counseling, which included high school students, convicts, former drug abusers, adults, and college students. Although the result of Oliver and Spokane's (1988) study was compelling, it does not focus on the college population, and more specifically, traditional age undergraduates. Arguments could be made that the results are transferable; however more focused analysis on this population is needed.

The need for further research on specific interventions and any associated outcomes was reinforced by the work of Maguire and Killeen (2003). In their paper, Maguire and Killeen (2003) reviewed a number of approaches to measuring outcomes from career interventions and service delivery. From the approaches they identified, each one was reviewed, its use and value was examined, and then recommendations were presented for policy and future research. The impetus for Maguire and Killeen's (2003) study stemmed from the inconclusive evidence that career counseling provides positive outcomes, including those pertaining to learning. Maguire and Killeen (2003) identified a number of issues that contradicted the conclusion of positive effects found by Oliver and Spokane (1988), including influencing factors on career choice, the fact that career

guidance can be used in other contexts, and there is no agreed upon scope of measures for outcomes.

From the studies they considered, Maguire and Killeen (2003) analyzed different types of outcomes that originated from career guidance services delivery. Learning outcomes were studied at the individual level as well as measures of institutional effectiveness and the public good, which include both economic and social benefits. Learning outcomes were deemed to be the most available and useful means of collecting outcome data. Maguire and Killeen (2003) concluded from the literature and their meta-analysis that a definitive statement like career guidance positively impacts learning outcomes is not available. Whether factors such as attitudinal change, shifts in individual career motivation, or economic benefits to the public are found, without question to hinder a positive impact, it none the less remains to be proven through research. Maguire and Killeen (2003) stated that this inconclusive data should be further examined to attempt to draw clearer conclusions of a link between career education and learning outcomes.

National Career Development Guidelines

The National Occupational Information Coordinating Committee (America's Career Resource Network, 2004) created a comprehensive list of developmental career learning outcomes that were developed for K-adult career education. These guidelines were based on Bloom's Taxonomy (1956, as cited in America's Career Resource Network, 2004) and included 200 indicators that are organized into three learning steps: (a) knowledge acquisition, (b) application, and (c) reflection. Each of these learning steps

is integrated into three domains, which represent three distinct levels of psychological development: (a) personal social development, (b) educational achievement and lifelong learning, and (c) career management. Within each of these domains are a series of goals, which are designed to organize and assist in facilitating the 200 indicators. The goals range from highly individual development, such as self-concept, to attaining education to meet goals to integrating changing employment and societal trends into career plans.

The impact that the *National Career Development Guidelines* (America's Career Resource Network, 2004) could have on career services offices and the creation of services with specific learning outcomes is compelling. Although they are applicable to various populations, including K-12 and adult educators, these guidelines provide career services practitioners with a toolkit for understanding learning and are also a window into understanding how individuals navigate through career development. With these points in mind, practitioners have another strategy, outside of career courses, in the development of career programs and in the assessment of learning outcomes. Furthermore, career services practitioners can improve their assessment strategies by using these field-specific outcomes instead of retro-fitting standard institutional learning outcomes to their offices. These guidelines provide a more comprehensive assessment of the outputs of career services. Although the uses of these guidelines are considerable, there has not been research conducted on its value or potential contributions.

Educational Entrepreneur Approach

The literature surrounding career services and student affairs lacks depth with regard to student learning outcomes and the impact of career services on career

development. The *National Career Development Guidelines* (America's Career Resource Network, 2004) provide researchers and practitioners with a framework for understanding how students learn. Brown (2006) wrote one of the few articles on career services and learning outcomes. Brown (2006) answered the questions of how does career services attract students to use their offices even though it is not a requirement and how do these same offices engage students significantly to develop targeted learning outcomes. More specifically, Brown (2006) introduced the educational entrepreneur approach to assist practitioners to "identify practical marketing and learning strategies to increase traffic to career centers and enhance learning, and to set clear, high, and assessable goals that address and reconcile multiple and competing priorities" (p.27). This approach not only assists offices with implementing learning outcomes, but it provides an outline to guide policy, programs/services, and practice.

The educational entrepreneur approach is a hybrid of an educator and the mind of an entrepreneur from the business world, whose goal is to catch students' attention, oblige them to act, and assist them in achieving any desired learning outcomes. The approach itself contains five parts: market research, business strategy, cognitive research, pedagogy, and learning theory. The one element that is not represented in the above list is customer service. The educational entrepreneur approach uses customer service as a corner stone of its philosophy to collect and maintain student engagement.

Brown (2006) provided career services practitioners with a guide for applying the educational entrepreneur model to day-to-day office operations. Plus, it identified linkages to the student affairs idea of educating the whole student and it encourages open communication with colleagues and others on-campus. Brown's (2006) educational

entrepreneurial model assists the profession by supplying potential resolution to the consistent career services problem of attracting students to career services. Not only does it assist with attracting students, but it also provides a method for connecting with the academic side of the academy. This model has not been carefully examined or researched, so even though it has significant potential, its contribution has not been studied.

Methodology

Identification of Research Variables

With any reputable research project, the factors that influence or have an effect on outcomes, as well as the results of these effects, must be clearly identified and examined. Both the independent and dependent variables provide a foundation of what is being examined in the study. Creswell (2003) defines variables as “a characteristic or attribute of an individual or an organization that can be measured or observed and that varies among the people or organization being studied” (p. 93). This study is a quasi-experimental design in which a sample of senior users of career services will be compared with a sample of senior non-users of career services. The primary independent variables will be the comparison of users and non-users of career services, but the effects of six additional variables: gender, race/ethnicity, services used by students, undergraduate degree, institutional school of enrollment, and graduation date, will also be examined (see Table 1). The dependent variables of this study consist of subject self ratings of learning outcomes, the content of which has been derived from the pertinent literature on the dimensions of student learning outcomes, especially those who relate to

the broad mission of student affairs and more specifically, to the mission of career services. The specific learning outcomes that will be assessed in this study include: career development; cognitive complexity; knowledge acquisition, integration, and application; inter- and intra-personal communication; civic engagement; humanitarianism, practical competence; and persistence and academic achievement (NASPA & ACPA, 2004). The learning outcomes of career development were added to this list based on its inclusion by the study institution. In addition to learning outcomes, the other dependent variables in this study will examine the subject self ratings of career transition and the impact of the services offered by career services.

Table 1

Independent Variables

| Individual Difference | Career Service Use | |
|-----------------------|--------------------|--------------------------------|
| | No (non-user) | Yes (user) |
| Gender | | One-on-one advising/counseling |
| Race/Ethnicity | | Workshops |
| Degree | | Events |
| School of enrollment | | On-campus recruiting |
| Graduation date | | Career resource library |
| | | On-line resources |
| | | One-on-one mock interviews |

Learning Outcome-Based Research Questions

The preceding literature review described and analyzed the concepts of student learning outcomes as well as accountability and assessment at three levels of higher

education: (1) university-wide; (2) student affairs; and (3) career services. This study presented why the issue of learning outcomes has become a priority topic for the academy, student affairs, and career services (NACE, 2005; Rayman, 1999). The following section will present research questions for the examination of student learning outcomes for career services.

- 1) What learning outcome differences exist when comparing students who participate in the services offered by career services to those who do not?
- 2) What differences in learning outcomes exist when comparing undergraduates by gender?
- 3) What differences in learning outcomes exist when comparing undergraduates by race/ethnicity?
- 4) What specific services had the most significant impact on student learning?
- 5) What career development processes differences exist between those students who used career services and those who did not (career development process: how students went about career decision-making or the job search process)?
- 6) What advice/instruction did students who did not use career services receive that impacted their career oriented learning outcomes?

Rationale for the Research Questions

The contributions of these research questions will reach beyond that of this particular study, in fact it has potential to impact career services, the division of student

affairs, and, to some degree, the university. Meeting accountability demands, providing evidence of program value, and having a role in student learning are all examples of this study's significance. These contributions can also assist career services and student affairs offices in developing new, robust programs and services. This section will describe how this study's research questions will impact institutions at multiple levels.

The impact of the research design will be the most useful for the study career services office and career services offices from similar institutions. The research questions were used to drive this design, thus they are significantly important. The research design of this study will be quantitative, specifically quasi-experimental, which will utilize a survey to examine randomly selected subjects. This design will assess the impact career services has on users in comparison to non-users. A survey-based design will provide results that will contribute to sound external validity, which contributes to the applicability of this study's results to other offices. Analyzing learning outcomes and what students gain by utilizing career services will provide a vehicle for self-evaluation and assessment of services. This analysis could potentially be used to increase student learning and provide evidence of impact on students.

A further effect is that all services and programs offered to students will be examined to assess their student learning value and to determine if their outcomes are significant. Although research has been completed on the impact career development courses has on student learning, little has been done on the rest of the services offered. This fact presents opportunity for analysis of these other service's impact on undergraduates. These other services include one-on-one advising/counseling, skill-based workshops, events, on-campus interviewing, on-line resources, career resources library,

and one-on-one mock interviews. Through these research questions and this analysis, an image of what career services can really do for students on a college campus will be developed. In addition, this study will provide verification of which services yield more impactful learning outcomes. Ultimately, the results can assist career services to develop services that are more robust and meet student needs.

The impact of the research questions will be realized through the analysis of the learning outcome differences between users and non-users of career services, by gender, race/ethnicity, degree, school of enrollment, and graduation date. Concrete substantiation of any group differences by graduation has the potential to greatly impact career services. For example, these offices would have data describing how non-users go about the career development process and where they gain assistance for it. Furthermore, if the outcomes of this study find users to have higher learning and outcomes, services and marketing efforts could be developed to communicate this to non-users to entice them to use career services. It could also show practitioners with whom non-users are getting career development assistance thus, identifying individuals for further collaboration and referrals.

Any outcome differences that are determined from this study based on gender or race/ethnicity are also significantly important. The data gathered on these variables can assist career services practitioners to better define each group's career development processes, which can assist in shaping how these groups are assisted. In addition, it can assist practitioners in developing new programs or services to meet each group's needs and learn where these students can be reached. Marketing and collaboration efforts could also be created to reach these students.

The importance of the research questions extends beyond the connection with career services to include the division of student affairs. Throughout its history, student affairs has battled with obtaining and maintaining legitimacy in the eyes of the faculty and administration. For many years, student affair's contribution to the academy was its specialization in college student development and its theories. This specialty did not supply the recognition it intended, in fact in some instances it moved the profession away from the academic program (ACPA, 1996). The research questions in this study will demonstrate that student affairs programs do incite learning and its practitioners are also educators of college students. If learning outcomes are obtained through one-on-one career interventions or through other services, and the degree of learning is compelling, academics should consider the value of student affairs.

At the university level, the importance of the research questions impacts accountability and faculty roles. The university can respond to external stakeholders by supplying proof that students do learn in college and that they are being positioned to find jobs. Both of which contributes to creating public good through the use of career development skills to find and maintain employment thus, contributing to the economic welfare of the state and society (Lewis & Hearn, 2003).

The results of the research questions that compare users of career services to non-users have the potential to demonstrate that this entity has an expertise to contribute to higher education, if the results favor career services. With the knowledge that learning is positively impacted, faculty may be more likely to make referrals to career services or to collaborate on programs and events. This collaboration has been shown to increase student learning, according to a number of studies (Banta, Black, & Kline, 2001; Baxter

Magolda, 2003; Hu & Kuh, 2003; Kezar, 2001; King, 1999; NASPA & ACPA, 2004; *New Directions in Student Services*, 2000; Whitt, 2006). This will also free up faculty time for other pursuits and the creation of new knowledge.

CHAPTER III

OVERVIEW OF THE RESEARCH DESIGN

The research design for this study is one that examined the research questions and found useful, valid information about college seniors. A quasi-experimental design, specifically using a survey, was used to capture the impact career services has on senior's experiences with career development and learning in a cost effective, yet efficient way. This research design contributed to external validity, where the study's results for the population of career services users and non-users can be generalized to career services in at the study institution and similar institutions. Furthermore, it has the potential to assist the profession in learning more about how college students go about the career development and how they learn career-oriented skills.

This research design also identified current career development trends of college students. There are a number of student and career services use trends that can be observed through the research questions. This study provides a glimpse into the process of how students learn about careers and go about their job searches. For career services offices, this study assists practitioners in identifying, for example, the effectiveness of a wider range of services as well as how and what students learn. The trend of program effectiveness is currently popular and by having useable data, initiatives can be developed to maintain and increase student learning. Furthermore, the program would be more effective at instilling students with usable skill sets and outcomes.

The populations that were examined in this study are undergraduates from an elite research university in the Midwest. Sample populations consist of users of career services

and non-users. Each population was given a survey consisting of multiple questions that use a five-point Likert scale. This method not only allowed for significant data collection but, it allowed for easily obtainable and accurate results.

Research Design

The research design of this study has a quantitative orientation, which aligns well with its intended outcomes. The intent of this study is to describe the behaviors of senior college students and gather data that will explain how they make career choices, how they sought services, and their learning outcomes (Gall, Borg, & Gall, 1996). There is also a good fit between quantitative research and this study because it examines a higher number of subjects, which will encapsulate a clearer image of the student experience, specifically in relation to their career development.

This research design also identified career development trends that pertain to both students and career services. The student trends include examining the process of how they learn about career development; what decision making, skill development, and job search methods they use; what they learn; where they seek assistance on these topics, and are there any trends related to gender or race. Data gathered on these trends informed practitioners on the current generation and class of students and how they use the services and resources available to them. This data also provided insight into the specific skills they garner by using these services.

The trends analyzed in this study also explored the implications of student use of career services offices. An obvious trend is analyzing the effectiveness of particular services and the entire office. Data gathered can tell practitioners that what they do is

reaching students and to what extent those students are gaining positive outcomes. This research can also contribute to the study of assessment in career services and provide accountability data for internal and external stakeholders.

A survey was used to achieve the goal of assessing the learning outcomes of college students seeking career development assistance. There are a number of benefits to using a survey to gather research data. In this study, students were directed to take an on-line survey, which was free, easy to facilitate, and captured data efficiently for analysis. Furthermore, the zero cost of posting the survey on-line was compounded by no postage or mailing costs to send and re-send the survey. The on-line survey offered the ability to monitor the results as the surveys were completed. Additionally, today's millennial generation college students are used to and are energized by readily available on-line resources, thus an on-line survey that can be accessed by their computer will be appealing. This fact is noteworthy because there were limited coverage gaps using this on-line method (Dillman, 2006). Finally, this survey helped in identifying the attributes of users and non-users of a large student population from a relatively small sample size, thus allowing the results to be generalized.

Population

The samples of students who were asked to participate in this study consisted of graduating undergraduates of all majors and minors seeking Bachelor of Science, Bachelor of Arts, or other Bachelor's degrees at an elite private research university in the Midwest. The institution was selected for this study because it is the place of work for the principle investigator, who has nine years of experience working with its students. This

experience, in theory, provided knowledge of how to navigate the institution to complete the survey more efficiently. The population of students graduating by June 2008 was divided into two samples, (a) users of career services and (b) non-users of career services. All subjects may have been actively engaged in career development activities, including career decision making, graduate school searching, internship assistance, or job search.

Subject Use of Career Services

As the analysis of the users versus non-users commenced, there was some identification of how much and to what extent seniors utilized career services or other resources. Brown (2006) developed a four category model that grouped students by the number of times they used career services. This model fits this study because it concisely categorizes students, streamlines the analysis, and its categories fit career services offices universally. The categories include: high users (10+ visits), transactional users (6-10 visits), reluctant/low-users (1-5 visits), and self-sufficient users (0 visits).

Career Services Office

The career services office from the study institution was established in the second decade of the 20th century. It started by providing graduates placement services, where the goal was to secure jobs in business and industry. As career services evolved into the 1990s, it transformed into a larger unit that offered students more comprehensive services. Instead of merely matching students with jobs, it offered career counseling and internship services as well as job search advice. The career counseling unit assisted students with career exploration and decision-making by means of counseling and assessment. At this time, all three units were housed in different offices that were located

in the same building. This was also the time when the focus of the overall office was changed from placement to career education, where students were taught career development skills. In 2001, all three units of career services moved into one comprehensive office located on the north end of campus.

Career services is a department within the division of student affairs and it reports to the vice president of student affairs. The career services staff of 22 reports directly to the executive director of career services, who is responsible for the overall day-to-day operations of the office. The twelve professional staff members all hold master's degrees in counseling psychology or higher education, with two staff who hold doctorates. The remaining support staff has either high school diplomas or bachelor's degrees. The staff of 22 provides a wide range of services and programs, which includes one-on-one interventions, group counseling, on-campus interviewing, and a comprehensive resource library. Programming offered by career services includes skill building workshops on topics such as resume development, interviewing skills, career decision making, and internship or job searching. Career services provides these services to undergraduates, from freshmen to seniors, and to graduate students, from masters to doctoral. The office is primarily centralized, which means that it serves all students except for those who attend the MBA, journalism, medical, and law schools.

Sampling Strategy

The way in which the subjects were sampled for this study is described in the following section. There were two samples drawn from the population of graduating undergraduate students specifically, users and non-users of the career services office.

These two samples provided the basis to compare and contrast the institutional and career development learning outcomes of undergraduates. The first sample of 400 career services users were captured using study career services office's CareerCat database, which is the primary means of student registration. CareerCat is a multi-purpose on-line tool where students manage on-campus interviews with external employers, view job postings, and view career services programming. This tool offers career services the ability to register students with the office, manage events, and keep counseling notes from student interventions. CareerCat provides a method of service delivery that is more accessible to students and impacts the overall service management for practitioners. All senior registrants in the database represented the user of the career services office sample. All participants in this survey were volunteers and each person was informed of their choice to not participate on the consent form.

The sample of non-users of career services was sampled using a slightly more complex technique. A list of 400 graduating seniors was requested from the Registrar's Office with the assistance of the Dean of Students at the study institution. The Registrar's Office randomly selected each subject and the sample mirrored the overall population configurations for gender and racial/ethnic populations. This request eliminated the over- or under-representation of certain groups. This list was cross-referenced with the list of users of the career services office to identify individuals who have not used University Career Services. Each of the participants in this sample were also volunteers and they were given the chance to not participate if they chose.

It was also critical to the success of this sampling strategy to identify an appropriate number of subjects for each sub-sample. The total annual number of

graduating seniors was approximately 2,247 students. The number of seniors registered in CareerCat was approximately 747 students and thus, there were approximately 1500 seniors who are non-users. According to Gall, Borg, and Gall (1996), survey research should obtain a minimum of 100 subjects in any sample so the minimum of each of these samples will be at least 100. For this study, 800 students were identified and sampled to represent the subjects to be examined. Finally, the gender and race/ethnicity of each subject within the sample and population were identified for later statistical analysis.

Description of the Instrument

The instrument that was used in this study was created and designed exclusively for this study (See Appendix A for instrument). In reviewing studies that examined learning outcomes from career services offices, there was no instrument that embodied all of what is being sought in this study. Thus, creating a new instrument was necessary to obtain the needed data. The instrument being used for this study was designed to address college student use of career services offices, the level of learning from career services offices services, and specific learning outcomes obtained. For non-users of career services offices, it addressed similar questions, but also where the service was obtained. The survey layout includes the collection of basic personally non-identifying demographic information, which includes gender, race/ethnicity, major, and use of career services. After the demographic information, five-point Likert scales ask users and non-users to provide feedback and rate services sought, learning levels, and learning outcomes.

Since the survey has never been used, there are questions about its validity and reliability with respect to it asking the questions in a manner that is intended and that the data will be useable for the study. Typically, it is suggested that researchers select instruments that have been used in the past so validity and reliability is already established (Creswell, 2003). No suitable survey was identified for this study, so additional measures were needed to be completed to use this survey. For this, the survey was evaluated by a three-tiered pilot study. The pilot study began by giving the survey to career services' Career Peers at the study institution. The Career Peers are an eight person team of current undergraduates who provide peer advising to other similar students. The survey was then given to five colleagues at the study institution, most of which have Ph.D. degrees and have experience with research and assessment. Pilot testing concluded with recruiting 20 senior students, who all volunteered and have either used or not used career services. Volunteers were recruited from student organizations that are at the study institution. The end product of the pilot test provided feedback about the effectiveness of the instrument and if it is accomplished what it intended to do. Any necessary adjustments were made and each group reviewed those changes.

Along with pilot testing the survey, there are additional steps that were taken to increase the validity and reliability of the survey. First, the subjects had to follow the same procedures to complete the survey. A set of clearly worded instructions guided each subject through each question and section, thus contributing to the standardization of the results to the greater population. Second, all completed surveys were scored and analyzed in the same manner. The exact process of scoring the surveys was conducted through StudentVoice, which is the on-line vendor that will house the survey, thus eliminating

research procedural errors. StudentVoice is an on-line vendor that assists institutions with assessment, specifically assisting in creating user-friendly instruments from received surveys, housing the surveys for subject completion, and providing a basic report and graphic tables of the compiled data.

How the Survey was Facilitated

Before the survey was given to any students, the proposed research was presented to the internal review boards at both the study institution and the University of Minnesota, since the survey was given to students at the study institution and since the researcher is a doctoral student at the University of Minnesota. Both boards were given a summary of the study's purpose, procedures, intended outcomes, and all instrumentation.

Upon approval from both boards, the following describes the process that was followed to facilitate the survey and gather resulting data. Once the two samples were identified from the overall population of graduating undergraduates, each student was sent an email prior to sending the survey to inform subjects about the survey, the study, and to encourage their participation (see Appendix C). This process began in spring quarter. After the initial email, another email was sent to the sample which contained a brief description of the study being conducted, the benefits for them to complete the study, a brief summary of the study process, and a link to the on-line survey (See Appendix B). The link took each student to the on-line survey, which was hosted by StudentVoice, the responses were saved on the system's memory. Before each student completed the survey, a consent form was presented for subject review. Each successful respondent received a thank you email upon completing the survey. A survey completion

deadline was set for three weeks after the initial email was included in the message to students. After the initial email, three reminder emails were sent to encourage student participation (see Appendix D).

Statistical Analysis

The underlying premise of this study was to compare the learning outcomes of undergraduate college students as they make use of career services and as they progress in their career development. The analysis began by examining descriptive statistics of the user's and non-user's use of career services based on institutional and career development learning outcomes. The first statistical test that was completed was a chi-square analysis of the demographic survey questions. These questions gathered data on the following: gender, race/ethnicity, undergraduate degree, graduation date, and institutional school of enrollment. This statistic determines to what level the observed cell counts in a two-way table diverge from the expected cell counts (Moore & McCabe, 2004).

After the descriptive statistics examined the use and non-use of career services, the mean scores of each service or learning outcome was then examined and used as a basis for comparing users to non-users of career services. The two-sample t significance test fits the examination of users and non-users use of career services and other resources based on institutional and career development learning outcomes. This statistic allowed for the comparison of sample means between two populations. It is also particularly fitting because it includes a p-value analysis that specifies the level of statistical significance of the difference between means. This assisted in determining the significance of the services offered by career services and the learning outcomes garnered

by the students. The statistical software program SPSS was used to calculate the individual t-tests for each service and learning outcome in the analysis.

A two-sample t-test was also used to compare use and non-use of career services based on gender. Similar to comparing users and non-users using this statistic, the gender comparison had two samples that provided two mean score averages. Two-sample t-tests fit with examining any significant difference between the two samples. The race/ethnicity variable on the other hand required a different statistic since it compared up to ten variables. An analysis of variance (ANOVA) was used to identify any significant differences between these groups. This statistic fit this comparison since it is intended to compare the means of multiple variables.

One of the final analyses completed for this study examined the impact student use of the services offered by career services has on each subject's transition to a job or graduate school. A pair-wise t-test was used to identify any significant difference between the services offered by the office. This statistic was chosen because the format of the survey questions did not provide a second mean score from a second sample since there was only one sample available.

The following narrative will describe the detailed step-by-step statistical analysis for the study. After gathering the completed student surveys from StudentVoice, the mean scores were calculated for each career development and learning outcome-based question for the user and non-user samples. A data summary as well as a side-by-side stemplot was created to visually examine the data distribution and identify any outliers or other data issues. The data summary included the sample size, mean, standard deviation, and percentages for the survey questions. After the data was inspected, a chi-square

analysis was completed on the survey questions pertaining to the demographic characteristics of users and non-users. This test identified any significant differences in the descriptive statistics.

Following the descriptive statistics, an analysis of the user and non-user mean scores for each survey question was examined using a two-sample t significance test to determine if the relationship between the means was statistically significant and if either proves or rejects the null hypothesis. The null hypothesis for each question followed this format and used μ_1 =users of career services and μ_2 =non-users of career services:

$$H_0 = \mu_1 = \mu_2$$

$$H_a = \mu_1 \neq \mu_2$$

After each comparison of the user and non-user mean scores, a p-value was calculated to determine if the difference between the scores is statistically significant. This statistical analysis was conducted for the student learning levels for each intervention or service provided by career services and the learning outcome identified by each student.

Along with the basic comparison of users and non-users of career services, research has shown that both gender and race/ethnicity have an impact on student learning and learning outcomes (Baxter Magolda, 1998; Kuh, 1993; Lehman, 1963; Pascarella & Terenzini, 1993; Whitt et al., 2003). Gender was examined using a two-sample t-test comparing males versus females based on institutional and career development learning outcomes. A similar null hypothesis to the user versus non-user comparison was used to assess significant differences.

The race/ethnicity variables were analyzed using an ANOVA, which assesses the mean scores of multiple variables. The null hypothesis for this analysis was:

$$H_0 = \mu_1 = \mu_2 = \dots = \mu_1$$

$$H_a = \text{not all of the } \mu_i \text{ are equal}$$

An F-statistic was calculated to test the null hypothesis and determine if there was a difference between the race/ethnicities.

The final statistical test that was completed for this study is a step-wise t-test, which determined the relationship between the services offered by career services and their impact on the user. Each service was paired with one-on-one advising/counseling since this variable had the largest use amongst users. The null hypothesis for this test was:

$$H_0 = \mu = 0$$

$$H_a = \mu \neq 0$$

A p-value was calculated to determine if any of the pairs were statistically significant.

Limitations

There are two potential limitations to this study and they center on the selection of subjects and the survey. The first potential limitation is the selection of the non-users of the career services sample and determining the use or non-use of the office. The sampling strategy states that once the total number of graduating undergraduates and the number of students who are registered on the CareerCat system and are using career services are identified, the sample of non-users can be determined. The sample obtained from the CareerCat database is then cross-referenced with another sample of non-users obtained from the study institution's Registrar's Office. The sample of non-users should not contain users based on the sampling procedure by the Registrar's Office. This process

seems sound, however there will be subjects who may have either attended some form of counseling appointment or another University Career Services event, but are not registered in the CareerCat database. There may also be the possibility that the sample from the Registrar's Office contains users. A validity check may be necessary to check any statistically analysis of users and non-users of career services.

The second potential limitation of this study is the unproven survey instrument. Creswell (2003) suggests that researchers identify and use a previously used survey that would lend toward greater validity and reliability. There is concern with an unproven survey that it may not ask the questions in a way to get the intended types of responses or that it may be challenging for the subjects to understand. The survey being utilized in this study will be used in a pilot study prior to its use. This will hopefully identify any gaps, problem questions, or any other issues as well as attempt to ease this limitation.

Survey Instrument

Overview of the Survey Instrument

The survey instrument for this study is an assessment that gathered data and information on seniors and the learning outcomes they develop by participating in career services. The instrument started by gathering basic demographic information to learn more about each subject, and then it asked specific questions about where subjects seek career assistance, the services they gained, and any learning outcomes they developed from their interactions. The survey intended to encapsulate the career development experience of seniors from the study institution and the career education they partake in while completing their undergraduate degrees. The following will present each section of

the survey instrument, give a description of its contents, and provide a rationale for the section or questions when necessary.

Demographic Questions

The opening section of the survey asked subjects to respond to five questions that pertained to who they are and how they spent their academic time at the study institution. The questions included in this section asked for responses to this directive, “To assist in comparing responses from different groups of students, please respond to each of the following questions”. For the first three questions in this section, subjects were asked to select the characteristic that best describes them; specifically these questions address gender, race/ethnicity, and degree type. The following question asked subjects to enter their major in a short answer format.

Subjects were asked to provide both their gender and race/ethnicity in the first two questions. Both gender and race are characteristics that have been demonstrated to impact learning and learning outcomes. For gender, it has been shown that in longitudinal studies, men and women can cognitively change in different ways, specifically in the areas of cognitive complexity, knowledge and academic skills, and altruism (Kuh, 1993). Race has also been shown to have an impact on learning, for example African American students who attend historically black colleges and universities gain increased cognitive development when compared to the similar students who attend predominantly white institutions (Pascarella & Terenzini, 1993). These survey questions were included to not only identify who is in each sample selected, but they can determine if there were any gender or race differences in the population.

The final questions in the demographic section asked subjects to provide their degree and graduation information. The purpose behind these questions was to ensure that the subjects in the sample are indeed seniors, since that is the intended group that was to be analyzed. The ending question about which major each subject had was asked to provide a deeper understanding of the subject and their unique backgrounds.

Learning Outcomes for Undergraduates

The study survey questions that pertain to learning outcome analysis utilized 21 learning outcomes that are used by the study institution to assess learning, including: intellectual growth; effective communication; enhanced self-esteem; realistic self-appraisal; clarified values; career choices; leadership development; healthy behavior; meaningful interpersonal relationships; collaboration; social responsibility; satisfying and productive lifestyle; spiritual awareness; personal and educational goals; cognitive complexity; knowledge acquisition, integration, and application; humanitarianism; civic engagement; interpersonal and intrapersonal competence; practical competence; and persistence and academic achievement. These learning outcomes are based on *The Book of Professional Standards for Higher Education* (Council for the Advancement of Standards in Higher Education, 2003) and comprise the institution's comprehensive initiative on student learning. Some of these learning outcomes were intended for student learning outcome assessment and others for faculty and staff to use when creating curriculum or programs and services.

The study institution's division of student affairs developed a series of eight learning domains that represent the basic skills each graduating senior should possess.

These learning domains were based in part on the list of 21 learning outcomes mentioned previously and the learning outcomes identified by *Learning Reconsidered* (ACPA & NASPA, 2004). The learning outcomes used from *Learning Reconsidered* include career development; civic engagement; cognitive complexity; knowledge acquisition, integration, and application; intra/interpersonal competence; humanitarianism; practical competence; and persistence and academic achievement. The study institution's eight learning domains include: career development, civic and community engagement, ethics and values, healthy living, intra/interpersonal competence, leadership, multicultural/intercultural competence, and responsible independence. From all of these different learning outcomes, a number fit career services, including career development; knowledge acquisition, integration, and application; cognitive complexity; persistence and academic achievement; realistic self-appraisal; and intra/interpersonal competence.

The survey questions that assessed the institutional learning outcomes of users and non-users of career services were designed to determine exactly what each student gains from the services offered. These questions were created using the learning outcomes identified by *Learning Reconsidered* (ACPA & NASPA, 2004) and *The Book of Professional Standards for Higher Education* (Council for the Advancement of Standards in Higher Education, 2003). Each of the institutional learning outcomes that were used for this study was adapted to fit the career services office and the services it provides for the study institution. For each point, a five-point Likert scale was used to assess the level of learning obtained by each subject. Ratings used to evaluate learning used the following: 1=did not learn, 2=minimal learning, 3=some learning, 4=moderate learning, 5=high level learning.

Subjects were also assessed on career development learning outcomes to more closely examine how the services offered by career services impact learning and their skill growth. These career development learning outcomes were developed from two sources, *Learning Reconsidered* (ACPA & NASPA, 2004) and *National Career Development Guidelines* (America's Career Resources Network, 2006). The individual survey questions asked subjects to rate the following: how career services impacted their decision on a career field that fits them, personal career focused reflection and processing, evaluate career/job options, career development skills (career decision making, resume, interviewing, using resources), relating those career development skills to your personal search, sense of civic responsibility, manage your own career development, and understanding of how credentials fit the working world. Career exploration, examination, and development of decision-making; occupational understanding; and job and internship searching skills were also assessed.

Career Services Usage

This section of the survey was intended to do the following: inform subjects about career services and what the office does for students, determine subject use of the office, and gather subject ratings on how each service offered impacted their career development. The opening narrative of this section informed each subject of who is facilitating the survey, in case they did not know or recognize the office name. Furthermore, this was used to evaluate if the subject has used career services or not. If they have not used the office before, then the survey directed them to the section that assessed them as non-users. The second and third questions were asked to find out how

frequently users utilized the office and their level of usage, which were assessed using the levels determined by Brown (2006). These two questions asked students to select how often they used career services and when they first used the office from a list of possible answers.

The final question in this section was asked to determine the impact each service has on the subject's transition from college to the world of work or graduate school. Each part of this question contained a yes/no question to determine usage and a five-point Likert scale for all subjects to rate the impact each service had on their career development. The services that were being assessed in this question included: one-on-one advising/counseling, workshops (resume, interviewing, job search), events (Internship Initiative, Career Expo), on-campus recruiting, career resource library, on-line resources (Vault, CareerCat, Art Search), and one-on-one mock interviews. The rating for each of these parts followed this format: 1=Not at all, 2=Slightly, 3=Some, 4=Much, 5=Very much. The development of these survey questions used the CIRP survey as a model, specifically questions development and facilitation (HERI, 2007).

The Role of Others in Career Services for Undergraduates

The next section of the survey examined the other ways, alternative to career services, in which undergraduates gain career development assistance and it analyzed what they learn and any outcomes that result. The first question seeks information on why subjects did not utilize career services as undergraduates. Subjects were asked to select all reasons why they did not use career services and these reasons include: never heard of career services, didn't think they could assist me, already had assistance with job

search, not ready to pursue job search yet, or another reason. This question will provide feedback to career services offices on why undergraduates decide not to engage with their offices. Getting the ambivalent to use career services or simply informing more students of its services is a concern for many career services offices (Brown, 2006).

The next three questions were designed to find out where undergraduates gain career advice or learn career development skills outside of using career services. The second question in this section asks subjects to state with whom they sought career assistance, as there are many individuals who can offer assistance. Subjects were asked to choose one individual from the following options: professor, parent, friend, classmate, mentor, advisor, self, or another student affairs office. It is also of interest to find out how many times this person/resource was consulted, so the following question asks subjects to state how often they received assistance. It might be possible that subjects seek multiple individuals for career assistance thus the next question determines if another individual(s) was consulted on occupational areas or to learn career development skills. For this question, students are asked to select yes or no. The following two questions query subjects on who else they utilize for additional career assistance and how many times that person was conferred with. Subjects were asked to indicate who else assisted them with their career development by choosing all individuals from a list that includes: professor, parent, friend, classmate, mentor, advisor, self, or another student affairs office.

The remaining two questions in this section are similar to the final two questions in The Role of Career Services in Learning Outcomes for Undergraduates section, specifically assessing what subjects learn from the services offered by career services. For the first question, subjects were asked to rate the impact each career development

service had on their learning using a five-point Likert scale. Subjects were asked to rate the following services: one-on-one advising/counseling, resume creation/review, job/internship strategies, career decision making, career/occupational information, and resources & strategies. Each of these services was rated using the following five-point Likert scale: 1=did not learn, 2=minimal learning, 3=some learning, 4=moderate learning, 5=high level learning. This data from non-users will serve as the contrast to the data gathered from the users of career services. Along with the next question, this one determined if there are differences or similarities in where undergraduates gain career assistance and in what they learn. Furthermore, the following question assessed any learning outcomes obtained by subjects from these outside of career services individuals. This question was also based on learning outcomes set by *Learning Reconsidered* (ACPA & NASPA, 2004) and *The Book of Professional Standards for Higher Education* (Council for the Advancement of Standards in Higher Education, 2003) and was similarly adapted to career services and career development. Ratings used to evaluate learning utilized the following: 1=did not learn, 2=minimal learning, 3=some learning, 4=moderate learning, 5=high level learning. The sub-points ask subjects to rate how career services impacted their decision on a career field that fits them, personal career focused reflection and processing, evaluate career/job options, career development skills (career decision making, resume, interviewing, using resources, relating those career development skills to your personal search, sense of civic responsibility, manage your own career development, and understanding of how credentials fit the working world. Career exploration, examination, and development of decision-making, occupational understanding, and job and internship searching skills were also assessed. In addition to

servicing as a comparison to the user of career services sample in this study, data gathered from this question can also be used to determine the level of learning gained from individuals outside of career services. Answers to these comparisons could address if students are learning career development skills similarly without career services.

Service Learning's Impact on Senior Learning Outcomes

The question in this section examined any learning outcomes that were gained by students who participated in service learning programs. A link between these types of programs and increased learning and outcomes has been presented in the literature (Astin and Sax, 1998; Astin & Vogelgesang, 2007; Astin, Vogelgesang, Ikeda, and Yee, 2000; Bonsall, Harris, & Marczak, 2002). The outcomes and aspects of this question will not be identified as variables, nor will the specific results be analyzed. It will, however, be used to assess its potential contribution to learning. The question asked begins by describing service learning programs that are present at the study institution, then it asks subjects to rate what they've learned impacted certain learning outcomes. The learning outcomes identified in this question were based of the learning outcomes presented by Astin, Vogelgesang, Ikeda, and Lee (2000) as a side study of the CIRP Survey. The learning outcomes Astin, Vogelgesang, Ikeda, and Lee (2000) identified include academic performance, values, self-efficacy, leadership, choice of a service career, and plans to participate in service after college. The ratings used to evaluate learning utilized the following on a five-point Likert scale: 1=did not learn, 2=minimal learning, 3=some learning, 4=moderate learning, 5=high level learning.

Gaining an understanding of how undergraduates go about their career development and comprehending what is learned is what this survey is designed to capture. It specifically gathered information about each student, who they are, who they seek for career assistance, and what outcomes they gained. Additionally, this survey will serve as a means of comparing and contrasting the use of career development assistance and learning of the user and non-user samples. Ultimately, this comparative data can demonstrate the value career services has to its institution, to student learning, and in higher education. Any gained positive verification of the value of career services has on learning and student development can then be used by career services office when accountability questions are asked. Furthermore, data collected from this survey and study can be used by career services offices for planning and self-analysis purposes. As many career services office seek to develop and improve on service delivery, this study could give them a resource to shape decision-making.

CHAPTER IV

RESULTS

This chapter contains the results of the current study which assessed the learning outcomes that occur from the use or non-use of the career service office at a private research university. The presentation of this data will begin with descriptive statistics of users and non-users of career services based on institutional and career development learning outcomes. There will also be descriptive statistics presented on the frequency of service use of career services, as well as any career development services that were sought by non-users, which were provided by individuals who are not associated with career services. The intention of reporting these descriptive results is to provide an overview of the data and to establish a foundation for the statistical analyses that will follow on the self-reported outcomes of users and non-users of career services.

A presentation of the advanced statistics will follow the descriptive statistics, displaying the comparative analysis for selected items on the survey and providing answers to the study research questions. Each particular comparative research question had a specific statistical test or tests associated with it to determine significance. This investigation will begin with the chi-square analyses comparing career services users and non-users based on gender, race, undergraduate degree sought, graduation date of subject, and school of enrollment at the study institution. Following the chi-square tests, t-test statistics were used to compare career services users with non-users based on both institutional and career development learning outcomes. A one-way analysis of variance was then conducted for race/ethnicity based on institutional and career development

learning outcomes. This chapter will end with presenting the results of the analysis of services sought by non-users. These services were provided by individuals other than the career counselors at career services. Each statistical test presented will be supported by a corresponding table.

Descriptive Results

This section of the results chapter provides a descriptive analysis of the variables examined in this study. The first set of results was based on the samples of students who used career services for their own personal career development, and those who did not use career services but used other university resources. Both users and non-users were assessed for the level of learning that occurred while attending the study institution. These institutional learning outcomes are the ones that the study institution expects each undergraduate to possess upon graduation. The learning outcomes were written to be inclusive of students' engagement inside and outside of the classroom.

Institutional Learning Outcomes

Table 2 contains the descriptive results from the total group of 204 students who responded to the survey. Both users and non-users of career services self-reported their levels of learning on eight different learning outcomes based on a five-point Likert scale that ranged from “no learning” to “high level learning”. The means ranged from a high of 4.40 for “knowing that I have developed the ability to think critically, reflect, and reason” to a low of 3.29 for the variable “knowledge about the importance of being engaged in civic activities in the community”. All of these means are at the level of “some learning”. Results are noted, in order, from highest to lowest learning outcome based on response

frequencies and percentages. For the first institutional learning outcome of perspective on “knowing that I have developed the ability to think critically, reflect, and reason”, the highest response found a “high level of learning” (N=105, 55.9%). For the outcome “have the ability to manage my university experience to achieve academic and personal success”, the most frequent response was “high level of learning” (N=79, 42%). For the outcome, “knowing how to gain new knowledge, how I have integrated this new knowledge, and apply it to new situations” followed with the most frequent response of “moderate learning” (N=77, 41%). For the outcome concerning “knowledge about my interpersonal and intrapersonal competence” the most frequent response was “high level of learning” (N=69, 36.7%). For the question “development of practical competence” the most frequent response was “high level of learning” (N=63, 33.3%). For the item “how my degree will contribute to my overall career” the most frequent response was “moderate learning”, N=56, 29.8%. For the outcome “having an understanding and appreciation of human differences and the concept of cultural competency” the most frequent response was “moderate learning” (N=53, 28.2%). The last outcome, “knowledge about the importance of being engaged in civic activities in the community”, the most frequent response was at “some learning” (N=52, 27.7%).

Table 2

Students' Response Concerning Institutional Learning Outcomes

| Outcome | Learning Experienced | | | | | | | | | | | |
|---|----------------------|-----|-------------------------|------|----------------------|------|--------------------------|------|----------------------------|------|-----------|------|
| | <u>No Learning</u> | | <u>Minimal Learning</u> | | <u>Some Learning</u> | | <u>Moderate Learning</u> | | <u>High Level Learning</u> | | \bar{x} | SD |
| | N | % | N | % | N | % | N | % | N | % | | |
| Perspective on how my degree will contribute to my overall career | 4 | 2.1 | 19 | 10.1 | 54 | 28.7 | 56 | 29.8 | 55 | 29.3 | 3.74 | 1.06 |
| Knowledge about the importance of being engaged in civic activities in the community | 12 | 6.4 | 40 | 21.3 | 52 | 27.7 | 50 | 26.6 | 34 | 18.1 | 3.29 | 1.18 |
| Knowing how to gain new knowledge, how I have integrated this new knowledge, and apply it to new situations | 1 | 0.5 | 7 | 3.7 | 24 | 12.8 | 77 | 41 | 79 | 42 | 4.20 | 0.84 |
| Knowledge about my interpersonal and intrapersonal competence | 3 | 1.6 | 15 | 8 | 33 | 17.6 | 68 | 36.2 | 69 | 36.7 | 3.98 | 1.01 |
| Having an understanding and appreciation of human differences and the concept of cultural competency | 4 | 2.1 | 19 | 10.1 | 42 | 22.3 | 53 | 28.2 | 70 | 37.2 | 3.88 | 1.09 |

| | | | | | | | | | | | | |
|--|---|-----|----|-----|----|------|----|------|-----|------|------|------|
| Development of practical competence | 4 | 2.1 | 13 | 6.9 | 47 | 25 | 61 | 32.4 | 63 | 33.5 | 3.88 | 1.02 |
| Knowing that I have developed the ability to think critically, reflect, and reason | 1 | 0.5 | 4 | 2.1 | 18 | 9.6 | 60 | 31.9 | 105 | 55.9 | 4.4 | 0.79 |
| Have the ability to manage my university experience to achieve academic and personal success | 3 | 1.6 | 8 | 4.3 | 35 | 18.6 | 63 | 33.5 | 79 | 42 | 4.10 | 0.96 |

Career Development Learning Outcomes

Similar to the learning outcomes that reflected the study institution’s goals for the overall college experience, the career services office identified another set of learning outcomes to reflect their services for undergraduates in the context of a career development framework. The second set of learning outcomes was included in this study’s survey of users and non-users of career services. These learning outcomes assess students’ exposure to and use of deeper thought, self-analysis, and implementation of career development skills. The following results describe the responses by the total set of respondents in their assessment of career development learning outcomes, regardless of whether or not they used services career services. Parallel to the institutional outcomes, this section will provide descriptive statistics to assist in understanding the data and as a basis for further analyses.

Both users and non-users of career services self-reported their levels of learning on eight different learning outcomes based on a five-point Likert scale that ranged from “no learning” to “high level of learning”. This results section notes the highest to lowest percentages and frequencies for each outcome as reflected in the descriptive statistics contained in Table 3. Item response means ranged from a high of 3.51 for the item “developed career development skills” to a low of 2.83 for “conduct personal career reflection”. Means for seven of the eight items ranged from slightly below the “some level of learning” to “moderate level of learning”. One outcome had a “high level of learning”.

The first outcome, “evaluate career/job options”, had its highest response of “high level learning” with a frequency of N=79, 42%. The outcome “apply those career development skills to your personal job/internship search” had its most frequent response of “moderate learning” with a frequency of N=48, 34.8%. The outcome “communicate effectively with employers or the person with whom you sought career assistance” had its most frequent response of “moderate learning” at N=48, 34.8%. The following outcome, “developing career development skills” outcome had the most frequent response “moderate learning”, N=43, 31.2%. The responses to the outcome “manage your own career development” had the most frequent response of “moderate learning” N=41, 29.7%. The outcome “conduct personal career reflection”, had its most frequent response “moderate learning” at N=40, 29%. The outcome, “decide on a career field that fits you”, had the most frequent number of responses at moderate learning, N=35, 25.4%. The final outcome, “develop an understanding of how your degree fits in the working world”, had “some learning”, N=35, 25.4, for its most frequent response.

Table 3

Learning Percentages on Career Development Learning Outcomes

| | Learning Experienced | | | | | | | | | | \bar{x} | SD |
|---|----------------------|------|------------------|------|---------------|------|-------------------|------|---------------------|------|-----------|------|
| | No Learning | | Minimal Learning | | Some Learning | | Moderate Learning | | High Level Learning | | | |
| | N | % | N | % | N | % | N | % | N | % | | |
| Decide on a career field that fits you | 32 | 23.2 | 23 | 16.7 | 30 | 21.7 | 35 | 25.4 | 18 | 13 | 2.88 | 1.37 |
| Conduct personal career reflection | 30 | 21.7 | 26 | 18.8 | 31 | 22.5 | 40 | 29 | 11 | 8 | 2.83 | 1.28 |
| Evaluate career/job options | 18 | 13 | 23 | 16.7 | 35 | 25.4 | 77 | 41 | 79 | 42 | 3.17 | 1.25 |
| Develop career development skills (e.g., career decision making, resume, interviewing, using resources, etc.) | 12 | 8.7 | 19 | 13.8 | 29 | 21 | 43 | 31.2 | 35 | 25.4 | 3.51 | 1.25 |
| Apply those career development skills to your personal job/internship search | 15 | 10.9 | 19 | 13.8 | 30 | 21.7 | 48 | 34.8 | 26 | 18.8 | 3.37 | 1.24 |
| Communicate effectively with employers or the person with whom you sought career assistance | 17 | 12.3 | 22 | 15.9 | 30 | 21.7 | 48 | 34.8 | 21 | 15.2 | 3.25 | 1.25 |
| Manage your own career development | 21 | 15.2 | 19 | 13.8 | 39 | 28.3 | 41 | 29.7 | 18 | 13 | 3.12 | 1.25 |
| Develop an understanding of how your degree fits in the working world | 31 | 22.5 | 20 | 14.5 | 35 | 25.4 | 34 | 24.6 | 18 | 13 | 2.91 | 1.35 |

Based on the frequencies and percentages in Table 3, the learning outcome that offered the overall highest level of learning was “evaluate career/job options” with “high level learning” at N=79, 42%. The variable, “Conduct personal career reflection”, had the overall lowest levels of learning at “minimal learning” (N=26, 18.8%).

Expected Career Status After Graduation

Since this study examines the connection between undergraduate experiences, use of career services, and self-reported institutional and career development outcomes, it is appropriate to describe subjects’ current status after graduation. Subjects were asked on the survey to choose “Which category best describes your primary career status immediately after graduation, beginning January 2008, Summer 2008, or Fall 2008?”. This question describes the subject’s immediate career plans after graduation, whether that be a job, internship, graduate school, or other. There were 13 response choices for subjects to select, including “full-time employment”, “full-time employment offer(s) pending”, “temporary or contract job”, “self-employed or freelance work”, “part-time employment at one or more jobs”, “full-time military service”, “post-graduate internship/practica/student teaching”, “post-graduate fellowship”, “full-time community/volunteer service”, “continuing education next fall”, “unemployed and actively seeking work”, “voluntarily unemployed and not seeking work”, and “other”. Subjects responded to all categories except for “voluntarily unemployed and not seeking work”, so this variable will not be included in the analysis.

Descriptive statistics for this survey question will be presented in this section, specifically the frequency and percentage of each post graduation variable. The statistical

results indicated that the variable “full-time employment” had the most frequent response with N=85, 42.3%. Outside of being employed full-time at the time of graduation, it is common at the study institution for students to be seeking graduate school. The variable “continuing education next fall” had the next most frequent response with N=42, 20.9%. The variable “unemployed and actively seeking work” was the next most frequent response with N=31, 15.2%. The remaining variables did not garner high response frequencies or percentages, they include: “full-time employment offers(s) pending” (N=12, 6%), “post-graduate internship/practica/student teaching” (N=7, 3.5%), “part-time employment at one or more jobs” (N=6, 3%), “temporary or contract job” (N=4, 2%), “self-employed or freelance work” (N=4, 2%), “full-time military service” (N=3, 1.5%), “other” (N=3, 1.5%), “post-graduate fellowship” (N=2, 1%), and “full-time community/volunteer service” (N=2, 1%). These results were consistent with average graduation plans of undergraduate students, in fact there were no responses out of the ordinary.

Research Questions

The previous section provided the results of descriptive statistics which presented details on how the study subjects responded to the study survey. These initial analyses assist in understanding the data and how that data may contribute to the more advanced statistics that will be presented in this section. The following segment will utilize these statistics to provide a foundation to answer each of the original research questions that were presented in the methodology. These research questions are attempting to provide data to answer the study hypothesis that if students at a research intensive university use

career services, they are more likely to have increased career development learning outcomes.

What Learning Outcome Differences Exist When Comparing Students Who Participate in the Services Offered by Career Services to Those Who Do Not?

In order to understand the results of the comparison between users and non-users in relationship to both the institutional and career development learning outcomes, it was necessary to first establish comparability of the two groups on other salient variables (eg, gender, degree, school of enrollment). This analysis began with chi-square tests comparing users and non-users based on their self-identification as a user or non-user of career services. This was done to identify an association between use of career services and these salient variables. A two-way table was created to study users and non-users based on their gender, race/ethnicity, undergraduate degree, graduation date, and their school of enrollment at the study institution. The null hypothesis stated that there was no association between status as a user versus non-user and response categories for the aforementioned variables. Table 4 summarizes the frequencies, percentages, and the chi-square statistics.

Table 4

Descriptive Characteristics of Survey Respondents, by Users and Non-Users

| Response | Status | | | | | | χ^2 |
|--------------------------------------|--------|------|------|------|----------|------|----------|
| | Total | | User | | Non-User | | |
| | N | % | N | % | N | % | |
| Total | 187 | 100 | 125 | 66.8 | 62 | 33.2 | |
| Gender | | | | | | | 0.97 |
| Male | 81 | 43.3 | 53 | 65.4 | 28 | 34.6 | |
| Female | 106 | 54 | 72 | 67.9 | 33 | 31.1 | |
| Race/Ethnicity | | | | | | | 8.45 |
| Black/African American | 9 | 4.8 | 5 | 55.6 | 4 | 44.4 | |
| Asian/ Asian American | 33 | 17.6 | 24 | 72.7 | 8 | 24.2 | |
| White/Caucasian | 122 | 65.2 | 80 | 65.6 | 42 | 34.4 | |
| Latina/o/Mexican American/Chicano | 7 | 3.7 | 5 | 71.4 | 2 | 28.6 | |
| Middle-Eastern | 2 | 1.1 | 2 | 100 | 0 | 50 | |
| Multi-Racial | 9 | 4.8 | 5 | 55.6 | 4 | 44.4 | |
| Other | 1 | 0.5 | 1 | 100 | 0 | 0.0 | |
| Prefer Not to Answer | 4 | 2.1 | 3 | 75 | 1 | 25 | |
| Undergraduate Degree | | | | | | | 14.95* |
| BA | 108 | 57.8 | 81 | 75 | 27 | 25 | |
| BS | 72 | 38.5 | 43 | 59.7 | 28 | 38.9 | |
| Other | 7 | 3.7 | 1 | 14.3 | 6 | 85.7 | |
| Graduation Date | | | | | | | 3.39 |
| December 2007 | 7 | 3.7 | 6 | 85.7 | 1 | 14.3 | |
| March 2008 | 29 | 15.5 | 16 | 55.2 | 13 | 44.8 | |
| June 2008 | 151 | 80.7 | 103 | 68.2 | 47 | 31.1 | |
| School of Enrollment | | | | | | | 33.12* |
| Communication | 24 | 12.8 | 16 | 66.7 | 8 | 33.3 | |
| Education and Social Policy | 9 | 4.8 | 8 | 88.9 | 1 | 11.1 | |
| Engineering and Applied Science | 32 | 17.1 | 22 | 68.8 | 10 | 31.2 | |
| Journalism | 15 | 8 | 7 | 46.7 | 7 | 46.7 | |
| Music | 6 | 3.2 | 0 | 0 | 6 | 100 | |
| Continuing Studies | 2 | 1.1 | 0 | 0 | 2 | 100 | |
| Arts and Sciences | 99 | 52.9 | 72 | 72.7 | 27 | 27.3 | |

* $p < 0.05$

As the results in Table 4 indicate there were two variables that had a statistically significant relationship with status as a user or non-user of career services: undergraduate degree and school of enrollment. For undergraduate degree, subjects were asked to identify which degree they were completing at the study institution. Respondents selected either B.A., B.S., or they were given an open space where they could write in another bachelor's degree they are completing. There were 108 subjects who identified themselves as working toward a B.A., 72 stated they were pursuing a B.S., and seven subjects stated they were completing another degree. In this case there were six individuals with Bachelor of Music degrees and one with a Bachelor of Journalism degree. The result of the chi-square test was $\chi^2=14.95$, which was statistically significant at $p<0.05$. This finding supported the alternative hypothesis that there is a relationship between this variable and use versus non-use of career services. Table 4 also indicates that subjects indicated a higher percentage of career services use for those seeking a B.A. (N=81, 75%) in comparison to B.S. respondents (N=43, 59.7%) and Other Degree respondents (N=1, 14.3%).

The other variable that also had a statistically significant relationship for users versus non-users was school of enrollment. The study institution has seven different academic colleges and subjects were asked to select which school they belong to when they completed the survey. According to the results, there were N=99 from the School of Arts and Sciences, N=32 from the School of Engineering and Applied Science, N=24 from the School of Communication, N=15 from the School of Journalism, N=9 from the School of Education and Social Policy, N= 6 from the School of Music, and N=2 from the School of Continuing Studies. The chi square test resulted in a value $\chi^2=33.12$, which

was statistically significant at $p < 0.05$. This finding supported the alternative hypothesis that there was a relationship between the school of enrollment variable and use versus non-use of career services. The results in Table 4 also indicate that certain schools at the study institution have a higher frequency of career services office users than non-users. The College of Arts & Sciences (N=72, 72.7%), School of Engineering and Applied Science (N=22, 68.8%), and School of Education and Social Policy (N=8, 88.9%) were schools that had a higher frequency of career services users in comparison to non-users.

Results in Tables 2 and 3 provided an overview of students' self reported learning outcomes of two types, namely overall learning outcomes articulated by the study institution and those reflective of desired learning outcomes in the context of career services. In this next section, self-reported outcomes of users and non-users will be examined to determine if there are differences between the groups based on a comparison of response means for the two groups. This analysis was complicated by the finding that the study design designation of being either a user or non-user, which was based on records maintained by the career services office, was inconsistent with student self-reported use of career services (e.g., "Have you used career services as an undergraduate?"). For example, of the study design user group, 33% indicated they had not used career services. Of those in the designated non-user group, 46% indicated they had used career services. With such a large discrepancy, two separate analyses of differences between the two groups were concluded based on the two contrasting methods for identifying group membership. Furthermore, the comparisons examined users of career services versus non-users based on institutional and career development learning outcomes using the original research design which identified use of career

services by student registration with career services' CareerCat database. The non-user sample was generated from the study institution's Registrar's Office and the individuals who were identified did not match the first sample that was registered in CareerCat. As a result, 66% were identified as users, 33% were identified as non-users, and 1% could not be classified. The CareerCat database was not as precise as expected and did not provide valid identification of the two groups. Instead, an additional variable was created as a validity check that used one question on completed survey responses as a means of identifying users and non-users of career services. This new variable resulted in a different identification of users and non-users. Of the total respondents (N=204), N=110, 53.9% were identified as users and N=94, 46.1% were identified as non-users.

Institutional Learning Outcomes

The first set of results compares users and non-users based on the study-design designations, and the second set of results, compares users and non-users based on the self-designated group membership. When these respondents completed the section of the survey that assessed institutional learning outcomes, they rated their level of learning based on a five-point Likert scale. For each point on the Likert scale a numerical number was assigned on a scale from one to five, with five having the highest level of learning. Table 5 compares the mean responses for the eight institutional learning outcomes based on the study design categorization of users and non-users.

The results summarized in Table 5 compare the two self-designated groups (i.e., based on response to survey question) on each of the eight institutional learning outcomes. For this comparison, there were 125 respondents who were identified as career

services users and 62 who were identified as non-users. As the results in Table 5 indicate, differences between the two groups were statistically significant at $p < 0.01$ or less for only one of the eight learning outcomes, specifically “knowledge about the importance of being engaged in civic activities in the community” ($p < 0.01$).

Table 5

Comparison between Study Design Designation Users and Non-Users on Institutional Learning Outcomes

| Institutional Learning Outcome ^a | Users (N=125) | | Non-Users (N=62) | | t- value |
|---|------------------|------|---------------------|------|-------------|
| | \bar{x} | SD | \bar{x} | SD | |
| Perspective on how my degree will contribute to my overall career | 3.77 | 1.00 | 3.69 | 1.17 | 0.43 |
| Knowledge about the importance of being engaged in civic activities in the community | 3.43 | 1.19 | 3.00 | 1.12 | 2.44** |
| Knowing how to gain new knowledge, how I have integrated this new knowledge, and apply it to new situations | 4.26 | 0.72 | 4.11 | 1.04 | 0.97 |
| Knowledge about my interpersonal and intrapersonal competence | 4.05 | 0.98 | 3.87 | 1.05 | 1.11 |
| Having an understanding and appreciation of human differences and the concept of cultural competency | 3.95 | 0.99 | 3.76 | 1.26 | 1.06 |
| Development of practical competence | 3.86 | 1.01 | 3.95 | 1.06 | -0.59 |
| Knowing that I have developed the ability to think critically, reflect, and reason | 4.47 | 0.71 | 4.29 | 0.91 | 1.37 |
| Have the ability to manage my university experience to achieve academic and personal success | 4.18 | 0.91 | 3.95 | 1.03 | 1.51 |

^a Responses coded on a five-point Likert scale from “1”=“No Learning” to “5”=“High Level Learning”

** $p < 0.01$

For the user group in Table 5, the variables “knowing I have developed the ability to think critically, reflect, and reason” and “knowing how to gain new knowledge, how I have integrated this new knowledge, and apply it to new situations” had the highest mean scores at 4.47 and 4.26 respectively. Conversely, the variables “knowledge about the importance of being engaged in civic activities in the community” and “perspective on how my degree will contribute to my overall career” had the lowest mean scores at 3.43 and 3.77, respectively.

For the non-user group, the highest mean scores were found for the same variables as the user group “knowing I have developed the ability to think critically, reflect, and reason” and “knowing how to gain new knowledge, how I have integrated this new knowledge, and apply it to new situations”, 4.29 and 4.11 respectively. The lowest mean scores for the variables in the non-user group were also the same variables as the user group, specifically “knowledge about the importance of being engaged in civic activities in the community” and “perspective on how my degree will contribute to my overall career” (3.00 and 3.69, respectively).

For the next set of results, summarized in Table 6, there were 98 respondents who were identified as career services users and 90 who did not based on samples gathered from CareerCat and the Registrar’s Office. As these results indicate, one of the items, “perspective on how my degree will contribute to my overall career” indicated a statistically significant difference between the two groups ($p < 0.01$). For this item, the mean for non-users (3.94) was higher than the mean for users (3.55).

For the user group, Table 6 indicates that the user learning outcomes “knowing that I have developed the ability to think critically, reflect, and reason” and “knowing

how to gain new knowledge, how I have integrated this new knowledge, and apply it to new situations”, have the highest mean scores of 4.39 and 4.15, respectively. The lowest mean scores were for the following institutional learning outcomes: “knowledge about the importance of being engaged in civic activities in the community” and “perspective on how my degree will contribute to my overall career”, 3.23 and 3.55, respectively.

Table 6

Comparison between Self-Designated Users and Non-Users on Institutional Learning Outcomes

| University Learning Outcome | Users (N=98) | | Non-Users (N=90) | | t-value |
|---|-----------------|------|---------------------|------|---------|
| | \bar{x} | SD | \bar{x} | SD | |
| Perspective on how my degree will contribute to my overall career | 3.55 | 1.08 | 3.94 | 0.99 | -2.60** |
| Knowledge about the importance of being engaged in civic activities in the community | 3.23 | 1.18 | 3.37 | 1.17 | -0.89 |
| Knowing how to gain new knowledge, how I have integrated this new knowledge, and apply it to new situations | 4.15 | 0.86 | 4.26 | 0.83 | 0.84 |
| Knowledge about my interpersonal and intrapersonal competence | 3.94 | 0.99 | 4.03 | 1.03 | -0.64 |
| Having an understanding and appreciation of human differences and the concept of cultural competency | 3.90 | 1.03 | 3.87 | 1.15 | 0.20 |
| Development of practical competence | 3.78 | 1.07 | 4.00 | 0.96 | -1.52 |
| Knowing that I have developed the ability to think critically, reflect, and reason | 4.39 | 0.83 | 4.42 | 0.75 | -0.30 |
| Have the ability to manage my university experience to achieve academic and personal success | 4.06 | 0.97 | 4.14 | 0.94 | -0.60 |

** p<0.01

Similar to the users, the non-user mean scores were highest for the learning outcomes of “knowing that I have developed the ability to think critically, reflect, and reason” (4.42), and “knowing how to gain new knowledge, how I have integrated this new knowledge, and apply it to new situations” (4.26). The lowest mean scores were slightly different for the non-users, specifically “knowledge about the importance of being engaged in civic activities in the community” (3.37) and “having an understanding and appreciation of human differences and the concept of cultural competency” (3.87).

When examining the results for the study design designation and the self-designation of users and non-users of career services, a difference occurred in the results of the two t-tests that were completed for both. The study design designation found the variable “perspective on how my degree will contribute to my overall degree” (-2.60), while the self-designation found “knowledge about the importance of being engaged in civic activities in the community” to be statistically significant (2.44).

The analysis of the user and non-user mean scores for the study design designation and self-designation did not find significantly different results. When examining the highest mean scores for both analyses, the variable with the highest score was identical, specifically “knowing I have developed the ability to think critically, reflect, and reason”. For the lowest mean scores for both the study design designation and the self designation, the variable “knowledge about the importance of being engaged in civic activities in the community” was the lowest for both.

Career Development Learning Outcomes

As it occurred in the previous section on the analysis of institutional learning outcomes, this section, specifically in the first set of results, users and non-users will be compared based on the study design designation and the second set of results will be compared based on the self-designated group membership. Table 7 compares the mean and standard deviation responses for the eight learning outcomes based on the study design designation which was originally conceptualized for this study. Of the 138 total responses, there were 111 respondents who identified themselves as users by answering the survey question “have you used career services as an undergraduate”. Furthermore, there were 27 respondents who identified themselves as non-users by responding “no” to the above survey question. As the subjects completed the section of the survey that analyzed career development learning outcomes, they rated their level of learning based on a five-point Likert scale. Also similar to the institutional learning outcomes, for each point on the Likert scale, a numerical number was assigned on a scale from one to five, with five having the highest level of learning. None of the results were found to be statistically significant.

As the results in Table 7 indicate for the user group, “developing career development skills” (3.55), “apply those career development skills to your personal job/internship search” (3.39), and “communicate effectively with employers or the person with whom you sought career assistance” (3.26) had the highest mean scores. The lowest mean scores for users were for the variables “conduct personal career reflection” (2.80), “develop an understanding of how your degree fits in the working world” (2.82), and “decide on a career field that fits you” (2.85).

Table 7 also indicates the results for the non-user group. The variables with the highest mean scores included: “conduct personal career reflection” (3.93), “develop career development skills” (3.33), and “apply those career development skills to your personal job/internship search” (3.30). The variables with the lowest mean scores for the non-user group included: “decide on a career field that fits you” (3.04), “communicate effectively with employers or the person with whom you sought career assistance” (3.19), and “evaluate career/job options” and “manage your own career development” (3.22 each).

Table 7

Comparison between Study Design Designation Users and Non-Users on Career Development Learning Outcomes

| Career Development Learning Outcome ^a | Users (N=111) | | Non-Users (N=27) | | t- value |
|---|------------------|------|---------------------|------|-------------|
| | \bar{x} | SD | \bar{x} | SD | |
| Decide on a career field that fits you | 2.85 | 1.32 | 3.04 | 1.58 | -0.58 |
| Conduct personal career reflection | 2.80 | 1.26 | 3.93 | 1.39 | -0.43 |
| Evaluate career/job options | 3.15 | 1.25 | 3.22 | 1.25 | -0.26 |
| Develop career development skills | 3.55 | 1.20 | 3.33 | 1.44 | 0.72 |
| Apply those career development skills to your personal job/internship search | 3.39 | 1.22 | 3.30 | 1.35 | 0.32 |
| Communicate effectively with employers or the person with whom you sought career assistance | 3.26 | 1.25 | 3.19 | 1.27 | 0.28 |
| Manage your own career development | 3.09 | 1.25 | 3.22 | 1.28 | -0.48 |
| Develop an understanding of how your degree fits in the working world | 2.82 | 1.34 | 3.30 | 1.35 | -1.65 |

^a Responses coded on a five-point Likert scale from “1”=“No Learning” to “5”=“High Level Learning”

Table 8 compares the mean responses for the eight learning outcomes based on the self-designated designation of users and non-users, there were N=79 who identified themselves as users and N=58 who identified themselves as non-users. Similar to the institutional learning outcome analysis, as respondents completed this section; they rated their level of learning based on a five-point Likert scale. For each point on the Likert scale, a numerical number was assigned on a scale from one to five, with five having the highest level of learning.

Table 8

Comparison between Self-Designated Users and Non-Users on Career Development Learning Outcomes

| Career Development Learning Outcome ^a | Users (N=79) | | Non-Users (N=58) | | t- value |
|---|-----------------|------|---------------------|------|-------------|
| | \bar{x} | SD | \bar{x} | SD | |
| Decide on a career field that fits you | 2.67 | 1.33 | 3.19 | 1.38 | 2.21* |
| Conduct personal career reflection | 2.68 | 1.33 | 3.03 | 1.27 | 1.59 |
| Evaluate career/job options | 3.08 | 1.25 | 3.29 | 1.26 | 1.00 |
| Develop career development skills | 3.44 | 1.22 | 3.59 | 1.31 | 0.65 |
| Apply those career development skills to your personal job/internship search | 3.33 | 1.26 | 3.41 | 1.24 | 0.39 |
| Communicate effectively with employers or the person with whom you sought career assistance | 3.32 | 1.24 | 3.17 | 1.27 | 0.66 |
| Manage your own career development | 3.00 | 1.22 | 3.31 | 1.26 | 1.44 |
| Develop an understanding of how your degree fits in the working world | 2.72 | 1.33 | 3.21 | 1.32 | 2.12* |

^a Responses coded on a five-point Likert scale from “1”=”No Learning” to “5”=”High Level Learning”

* p<0.05

For the user group, Table 8 indicates that the user learning outcome “develop career development skills” (3.44) and “apply those career development skills to your personal job/internship search” (3.33) have the highest mean scores. The lowest mean scores for users were “decide on a career field that fits you” (2.67) and “conduct personal career reflection” (2.68).

For the non-user group, the highest mean scores were found for the same learning outcome variables as the user group, specifically “develop career development skills” (3.59) and “apply those career development skills to your personal job/internship search” (3.41). Conversely, the two career development learning outcomes with the lowest mean scores were “conduct personal career reflection” (3.03) and “communicate effectively with employers or with the person with whom you sought assistance” (3.17). The variable “conduct personal career reflection” was the same as the user group, however, the variable with the second lowest mean score differed from the user group.

What Differences in Learning Outcomes Exist When Comparing Undergraduates by Gender?

The primary reason for this study was to determine if the use of career services affects the learning outcomes in undergraduates when compared to those who do not use this office. The notion of how gender impacts career development was a topic that is also present in the literature (Baxter Magolda, 1998; Kuh, 1993; Lehman, 1963, Pascarella & Terenzini, 1993; Whitt, et al. 2003). With this in mind, this study examined if gender played a significant role in assessing level of learning for institutional and career development learning outcomes. This section will describe the results of tests on the role

of gender in learning outcomes for the total set of respondents regardless of their status as a user or non-user of career services.

For this analysis, the total number of female survey respondents was N=106, and the number of men was N=81 with percentages 57% and 44% respectively. There was one response for transgender and it had a 0.5% response. Since the transgender response is minimal and one variable did not have a response, it will not be used for the rest of this section's analysis. For users, there were N=81, 67.5% women, N=53, 65% men, and N=1, 0.5% transgender. For non-users, there were N=33, 31% women, N=28, 35% men, and zero transgender.

A chi-square analysis was completed on the categorical variables of gender and use of career services. Those results, noted previously in Table 4, examined the comparison of gender and use of career services. Table 4 identified that there is a chi-square value of $\chi^2=0.97$, which indicated that the null hypothesis is upheld and there is no association between gender and use of career services. This finding supports the analysis of gender difference in institutional learning outcomes and career development learning outcomes irrespective of status as user and non-user of career services.

Table 9 summarizes the results of the t-test comparing institutional learning outcomes for females versus males. As the results in Table 9 indicate, the only variable for which there was a statistically significant gender difference was "knowledge about the importance of being engaged in civic activities in the community" with a t-value of -2.01, which was statistically significant at $p<0.05$. The means were 3.44 and 3.10, respectively, for females versus males.

Table 9

Institutional Learning Outcomes, by Gender

| Institutional Learning Outcomes ^a | Male (N=81) | | Female (N=106) | | t-value |
|---|----------------|------|-------------------|------|---------|
| | \bar{x} | SD | \bar{x} | SD | |
| Perspective on how my degree will contribute to my overall career | 3.73 | 1.07 | 3.76 | 1.16 | -0.23 |
| Knowledge about the importance of being engaged in civic activities in the community | 3.10 | 1.16 | 3.44 | 1.17 | -2.01* |
| Knowing how to gain new knowledge, how I have integrated this new knowledge, and apply it to new situations | 4.25 | 0.86 | 4.16 | 0.83 | 0.70 |
| Knowledge about my interpersonal and intrapersonal competence | 3.90 | 0.96 | 4.04 | 1.04 | -0.93 |
| Having an understanding and appreciation of human differences and the concept of cultural competency | 3.79 | 1.13 | 3.94 | 1.06 | -0.95 |
| Development of practical competence | 3.88 | 1.08 | 3.88 | 0.98 | -0.1 |
| Knowing that I have developed the ability to think critically, reflect, and reason | 4.40 | 0.83 | 4.41 | 0.77 | -0.09 |
| Have the ability to manage my university experience to achieve academic and personal success | 2.72 | 1.33 | 3.21 | 1.32 | -2.12 |

^a Responses coded on a five-point Likert scale from “1”=“No Learning” to “5”=“High Level Learning”

* $p < 0.05$

The next set of results in Table 10 presents the outputs of t-tests, which examined gender differences for the eight career development learning outcomes. As the results indicate, there were no statistically significant gender differences.

Table 10

Career Development Learning Outcomes, by Gender

| Career Development Learning Outcome ^a | Male (N=59) | | Female (N=79) | | t- value |
|---|----------------|------|------------------|------|-------------|
| | \bar{x} | SD | \bar{x} | SD | |
| Decide on a career field that fits you | 3.07 | 1.38 | 2.75 | 1.35 | 1.37 |
| Conduct personal career reflection | 2.81 | 1.22 | 2.84 | 1.33 | -0.10 |
| Evaluate career/job options | 3.29 | 1.26 | 3.08 | 1.24 | 0.99 |
| Develop career development skills | 3.56 | 1.37 | 3.47 | 1.16 | 0.41 |
| Apply those career development skills to your personal job/internship search | 3.51 | 1.31 | 3.27 | 1.20 | 1.12 |
| Communicate effectively with employers or the person with whom you sought career assistance | 3.24 | 1.19 | 3.25 | 1.30 | -0.08 |
| Manage your own career development | 3.07 | 1.22 | 3.15 | 1.28 | -0.40 |
| Develop an understanding of how your degree fits in the working world | 2.93 | 1.40 | 2.90 | 1.32 | 0.14 |

^a Responses coded on a five-point Likert scale from “1”=“No Learning” to “5”=“High Level Learning”

What Differences in Learning Outcomes Exist When Comparing Undergraduates by Race/Ethnicity?

When examining the seniors who comprised the study population as well as the two subsets of users and non-users, it became apparent that there should be an analysis difference among subgroups of respondents. Gender was the first characteristic examined, and one difference was found in relation to learning outcomes although none were found to be significant. Another variable that would contribute to this examination

is race/ethnicity, as several racial/ethnic groups were present in the sample. This section will summarize the results of this analysis.

The overall representation of race/ethnicity in respondents was parallel to that found in the study institution, with only slight variance. The list of race/ethnicity classifications was gathered from the study institution's Registrar's Office and is used universally across campus. As previously noted in Table 4, the following is a list of each race/ethnicity along with its overall frequency and percentage for survey respondents: White/Caucasian, N=122, 65.2%; Asian/Asian American, N=33, 17.6%; Black/African American, N=9, 4.8%; Multi-Racial, N=9, 4.8%; Latina/o/Mexican American/Chicano, N=7, 3.7%; Prefer not to Answer, N=4, 2.1%; Middle Eastern, N=2, 1.1%; Other, N=1, 0.5%; Native American/Alaskan American, N=0, 0%; and Native Hawaiian/Pacific Islander, N=0, 0%. There were no statistically significant differences between users and non-users, so the analysis of differences in learning outcomes as function of race/ethnicity was based on the total set of respondents.

A chi-square test was completed to compare the total observed counts with the set of expected counts for race/ethnicity (see Table 4). Race/ethnicity is not significant when examining if there is an association between it and the use of career services. The chi-square test resulted in the value $\chi^2=3.78$, which was not statistically significant. This result indicates that there is no association between race/ethnicity and use of career services, thus the null hypothesis is accepted. The racial/ethnic groups, White/Caucasian (N=80, 65.6%), Asian/Asian American (N=24, 72.7%); and Black/African American (N=9, 4.8%) had a higher frequency of career services use.

A one-way analysis of variance (ANOVA) was completed to compare all of the ten race/ethnicities for each institutional learning outcome variable to determine if there were statistically significant differences among groups. There were, however, three groups in the analysis, Native American/Alaskan American, Native Hawaiian/Pacific Islander, and Prefer Not to Answer, who did not have any subjects self-identify themselves into either group. They were then excluded from the ANOVA. The Middle Eastern sample should also be used with caution as there were no Non-Users subjects, only users responded to the survey. There were two institutional learning outcome variables that were found to be significant: “knowing that I have developed the ability to think critically, reflect, and reason” ($F=3.308$, $p<0.01$) and “have the ability to manage my university experience to achieve academic and personal success” ($F=2.037$, $p<0.05$). See Table 11 for a complete summary of these results. According to student survey responses, the critical thinking variable showed the highest levels of learning for undergraduates. These two variables reject the null hypothesis that all of the institutional learning variables are the same across. The remaining four variables did not have a significant relationship between race and institutional learning outcomes.

Table 11

Overall Institutional Learning Outcomes, by Race/Ethnicity

| | Race ^a | | | | | | | | | | | | ANOVA | |
|---|------------------------|------|----------------------|------|-----------------|------|-------------------------------------|------|----------------|------|-------------|------|---------|------|
| | Black/African American | | Asian/Asian American | | White/Caucasian | | Latina/o, Mexican American, Chicano | | Middle Eastern | | Multiracial | | F-value | Sig. |
| | \bar{x} | SD | \bar{x} | SD | \bar{x} | SD | \bar{x} | SD | \bar{x} | SD | \bar{x} | SD | | |
| Perspective on how my degree will contribute to my overall career | 3.22 | 1.64 | 3.67 | 1.08 | 3.79 | 0.99 | 3.71 | 1.12 | 5.0 | 0.0 | 3.89 | 1.05 | 1.37 | .22 |
| Knowledge about the importance of being engaged in civic activities in the community | 3.56 | 1.13 | 3.33 | 1.22 | 3.30 | 1.18 | 3.14 | 1.22 | 4.5 | 0.71 | 2.78 | 1.09 | 1.19 | .31 |
| Knowing how to gain new knowledge, how I have integrated this new knowledge, and apply it to new situations | 4.22 | .67 | 3.85 | 1.00 | 4.29 | 0.77 | 4.14 | 0.38 | 5.0 | 0.0 | 4.33 | 0.37 | 1.63 | .12 |

| | | | | | | | | | | | | | | |
|--|------|------|------|------|------|------|------|------|-----|------|------|------|--------|------|
| Knowledge about my interpersonal and intrapersonal competence | 4.00 | .71 | 3.82 | 1.01 | 4.02 | 0.97 | 3.86 | 1.07 | 5.0 | 0.0 | 4.33 | 1.12 | 1.20 | .31 |
| Having an understanding and appreciation of human differences and the concept of cultural competency | 4.00 | 1.12 | 3.88 | 1.17 | 3.80 | 1.09 | 4.71 | 0.49 | 4.5 | 0.71 | 4.11 | 1.05 | 1.02 | .42 |
| Development of practical competence | 3.22 | 1.20 | 3.22 | 1.20 | 3.94 | 0.97 | 3.71 | 1.25 | 5.0 | 0.0 | 4.44 | 0.73 | 1.90 | .07 |
| Knowing that I have developed the ability to think critically, reflect, and reason | 4.22 | .97 | 3.91 | .98 | 4.55 | 0.67 | 4.0 | 1.0 | 5.0 | 0.0 | 4.56 | 0.73 | 3.31** | .002 |
| Have the ability to manage my Northwestern experience to achieve academic and personal success | 3.89 | 1.17 | 3.79 | 1.22 | 4.23 | 0.80 | 3.86 | 1.35 | 5.0 | 0.0 | 4.11 | 0.78 | 2.0* | .05 |

* p<0.05

** p<0.01

Since the null hypothesis was rejected for this analysis and the alternative hypothesis is upheld, further testing was needed to determine where the relationships lie between the seven race/ethnicity variables. This will provide a clearer image of what particular race has been impacted the most by the institution. To assess these relationships a post-hoc test is needed, specifically, Scheffe's method. Although this test is conservative, it will be effective at examining the multiple possible differences between pairs of the seven race/ethnicities. The three race/ethnicities variables that did not have a subject response were again excluded. Since the Scheffe does these multiple tests, it keeps the likelihood of type I errors constant, developing stability through the test.

The results of the Scheffe test confirmed that there are statistically significant relationships between the race/ethnicity variables and the subject responses to the institutional learning outcome variables. The following section will present the race/ethnicity relationships and data for the institutional learning outcome variables.

For the institutional learning outcomes, the Scheffe test indicated significant differences for six of the eight race/ethnicity variables being compared. White/Caucasian students had the highest number of significant differences in comparison to the other race/ethnicities. Specifically, there was a difference for the variable "knowing how to gain new knowledge, how I have integrated the new knowledge, and apply it to new situations" ($p < 0.05$). When comparing mean scores for this variable with the other race/ethnicities, the White/Caucasian mean score (4.29) was lower than Multi-racial (4.33), while all other race/ethnicity mean scores were lower than 4.29. There was also a difference for the variable "having an understanding and

appreciation of human differences and the concept of cultural competency” ($p < 0.05$).

The mean score comparison among the race/ethnicities for this variable also was lower for White/Caucasians (3.80) when compared to Latina/o/Mexican American/Chicano (4.71), while all other race/ethnicity mean scores were lower than 3.80. The variable “development of practical competence, specifically communication skills, capacity to manage my affairs, and maintain health and wellness” was found to have a difference when examined with the various race/ethnicities ($p < 0.05$). The mean score comparison among the various race/ethnicities found the White/Caucasian mean score (3.94) to be less than mean score for Multi-racial (4.44), while all other race/ethnicity mean scores were lower than 3.94. The final sample that contained a significant difference was the variable “have the ability to manage my university experience to achieve academic and personal success and to achieve my goals” ($p < 0.05$). The mean score comparison found the White/Caucasian mean (4.23) was lower than only one race/ethnicity, specifically Middle Eastern (5.00), while all other race/ethnicity mean scores were lower than 4.23. The White/Caucasian sample was the largest in size in comparison to the other race/ethnicities, thus having these many significant results is not unexpected.

Asian/Asian American students also had a significant difference with three of the institutional learning outcome variables, which supported the notion that there are race/ethnicity differences for these learning outcomes. The significant differences were more closely related to the intellectual institutional learning outcomes. In fact, for the variable “knowing that I have developed the ability to think critically”, the Scheffe test resulted in a difference ($p < 0.05$). The mean comparison analysis found that the Asian/Asian American mean score (3.91) was the lowest among all other

race/ethnicities compared. The other intellectual variable, “knowing how to gain new knowledge, how I have integrated this new knowledge, and apply it to new situations”, had a difference at $p < 0.05$. Asian/Asian American subjects also had a significant difference on the variable, “have the ability to manage my university experience to achieve academic and personal success and to achieve my goals”, at $p < 0.05$. The mean score comparison found that the Asian/Asian American mean score (3.79) was lower than all other race/ethnicity variables except for “Other”, which had a mean score of 3.20.

Similar to Asian/Asian Americans, Middle Eastern subjects were significant for three of the institutional learning outcomes. The first difference was with the variable “having a perspective on how my degree will contribute to my overall career” was significant at $p < 0.05$. The mean score comparison found that the mean of the Middle Eastern students were higher than all the mean scores of the other race/ethnicities. There was also a significant difference with the outcome “development of practical competence, specifically communication skills, capacity to manage my affairs, and maintain health and wellness” ($p < 0.05$). The mean score comparison found that all of the race/ethnicities were lower than the Middle Eastern mean. There was a significant difference for the outcome, “knowing that I have developed the ability to think critically” at $p < 0.05$. The mean score comparison found all of the race/ethnicities’ means to be lower than the Middle Eastern mean.

Black/African American subjects also supported the notion that there are race/ethnicity differences when comparing race to institutional learning outcomes. This subject group had significant relationship differences for two of these learning

outcomes. Black/African American responses were significant with the outcome “perspective on how my degree will contribute to my overall career” ($p < 0.05$). The mean score comparison for this variable found the Black/African American mean (3.22) to be higher than the “other” race/ethnicity at 3.00. Conversely, the Black/African American mean was lower than the mean scores of all other race/ethnicity variables. The outcome “development of practical competence, specifically communication skills, capacity to manage my affairs, and maintain health and wellness” ($p < 0.05$) had a significant difference. The mean score comparison found the Black/African American mean to be lower than the mean scores of all other race/ethnicities that were assessed.

The final two race/ethnicity groups, Multi-racial and Latino/a/Mexican American/Chicano, were found to have racial differences when compared using institutional learning outcomes. For Multi-racial subjects, there was a significant difference with the outcome “development of practical competence, specifically communication skills, capacity to manage my affairs, and maintain health and wellness” ($p < 0.01$). The mean score comparison found that only the Middle Eastern mean (5.0) was higher than the Multi-racial mean (4.44) and all other race/ethnicities had means lower than the Multi-racial mean. The variable “knowing that I have developed the ability to think critically” ($p < 0.05$) also had a significant difference for the Multi-racial subjects. The mean score comparison found that the Multi-racial mean (4.56) was higher than all other race/ethnicities except Middle Eastern (5.0).

Latino/a/Mexican American/Chicano subjects had one significant difference and that was with the outcome, “having an understanding and appreciation of human differences and the concept of cultural competence” ($p < 0.05$). The mean score

comparison found that the Latina(o)/Mexican American/Chicano mean (4.71) was higher than all other race/ethnicity variables compared in this analysis.

Similar to the institutional learning outcomes, an analysis of the seven race/ethnicity variables was also conducted on subject responses to the eight career development learning outcomes. A one-way analysis of variance (ANOVA) was completed to compare the various race/ethnicities on the career development learning outcomes in order to determine if there were any statistically significant differences. Table 12 summarizes the outcomes of the ANOVA along with descriptive statistics.

As Table 12 indicates, none of the F-tests produced statistically significant values, thus none of the race/ethnicities had any statistically significant difference when examined based on career development learning outcomes. These results do not reject the null hypothesis, so there are no statistically significant differences.

Table 12

Overall Career Development Learning Outcomes, by Race/Ethnicity

| | Race ^a | | | | | | | | | | | | ANOVA | |
|--|------------------------|------|----------------------|------|-----------------|------|-------------------------------------|------|----------------|------|-------------|------|---------|------|
| | Black/African American | | Asian/Asian American | | White/Caucasian | | Latina/o, Mexican American, Chicano | | Middle Eastern | | Multiracial | | f-value | Sig. |
| | \bar{x} | SD | \bar{x} | SD | \bar{x} | SD | \bar{x} | SD | \bar{x} | SD | \bar{x} | SD | | |
| Decide on a career field that fits you | 3.17 | 1.17 | 3.42 | 1.28 | 2.82 | 1.39 | 2.17 | 1.17 | 2.00 | 1.41 | 2.80 | 1.30 | 1.40 | 0.21 |
| Conduct personal career reflection | 3.17 | 1.33 | 3.29 | 1.27 | 2.76 | 1.27 | 2.33 | 1.21 | 2.50 | 2.12 | 2.80 | 1.30 | 1.42 | 0.20 |
| Evaluate career/job options | 2.67 | 1.03 | 3.38 | 1.25 | 3.16 | 1.25 | 2.67 | 1.37 | 3.00 | 2.83 | 3.20 | 1.48 | 0.44 | 0.88 |
| Develop career development skills | 3.67 | 1.63 | 3.67 | 1.20 | 3.56 | 1.19 | 2.50 | 1.38 | 3.00 | 2.83 | 3.60 | 1.48 | 1.11 | 0.36 |
| Apply those career development skills to your personal internship/job search | 3.33 | 1.37 | 3.62 | 1.06 | 3.32 | 1.28 | 3.50 | 1.05 | 3.00 | 2.83 | 3.40 | 1.67 | .36 | 0.92 |

| | | | | | | | | | | | | | | |
|---|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|
| Communicate effectively with employers or the person with whom you sought career assistance | 3.83 | .75 | 3.29 | 1.20 | 3.23 | 1.26 | 3.50 | 1.38 | 3.00 | 2.83 | 3.00 | 1.41 | .74 | .64 |
| Manage your own career development | 3.33 | 1.21 | 3.42 | 1.18 | 3.14 | 1.27 | 2.33 | 1.21 | 2.00 | 1.41 | 2.60 | 1.14 | 1.16 | .33 |
| Develop an understanding of how your degree fits in the working world | 3.67 | .82 | 3.21 | 1.18 | 2.87 | 1.38 | 2.00 | 1.10 | 3.00 | 2.83 | 2.80 | 1.40 | 1.14 | .34 |

^a "Other" Variable had only one response, thus was excluded from this analysis.

* p<0.05

** p<0.01

What Specific Services Have the Most Significant Impact on Student Learning?

The first three research questions in this study focused on what users and non-users learned or did not learn as a function of participation in career services. In order to gain a more specific view of career development learning outcomes, this section will examine learning based on respondents' use of specific services offered by career services. In other words, to what extent did each service impact learning, (e.g., assisting with the transition to work/graduate school). This section will provide descriptive statistics and a paired-sample significance test of the various services in order to identify and present trends. In this section, only the career development learning outcomes are examined since there is no rationale for examining the broader set of institutional learning outcomes based on use of particular services provided by career services.

The first part of the analysis provides descriptive statistics to identify any preliminary trends or results. The services offered by career services include a wide range of career education and skill development, including "one-on-one career advising/counseling", "workshops", "events", "on-campus interviews", "career resource library", "on-line resources", and "one-on-one mock interviews".

The number of subjects who indicated having used each of the services varied considerably. As the results in Table 13 indicate, the most used service was "one-on-one advising/counseling", which is not surprising considering that one-on-one appointments with students are the focal point of career services (N=87, 78%). Use of career services "on-line resources" had the next highest use with a response of N=79

(71.2%), followed by “events” (N=68, 61.3%), “on-campus interviews” (N=52, 46.8%), “workshops” (N=50, 45%), and “one-on-one mock interviews” (N=22, 19.8%). The service that had the least frequent undergraduate student use was the “career resource library” (N=19, 17.1%), which is located in the career services office

Table 13

Specific Career Services Utilized by Users

| Service | N | % |
|--|----|------|
| On-on-one advising/counseling | 87 | 78 |
| On-line Resources | 79 | 71.2 |
| Events (internship Initiative, career fairs) | 68 | 61.3 |
| On-campus interviews | 52 | 46.8 |
| Workshops (resume, interviewing, job search) | 50 | 45 |
| One-on-One Mock Interviews | 22 | 19.8 |
| Career Resource Library | 19 | 17.1 |

The next step in this analysis of services shifts from overall use to the evaluation of how much specific career services assisted each user with their transition from college to work or graduate school. Users evaluated specific services on a five point Likert scale, “not at all” (coded 1), “slightly” (coded 2); “some” (coded 3); “much” (coded 4); and “very much” (coded 5). Table 14 contains response frequencies and percentages as well as item statistics. For the first variable, “one-on-one

advising/counseling”, the most frequent response was “some” with a frequency of N=23 and a percent of 20.7%. The least frequent response for this variable was “very much” with N=9, 8.1%. For “workshops”, the most frequent response was for “some” with N=17, 15.3% and the least frequent response was a tie between “not at all” and “very much”, N=3, 2.7% respectively. The “events” variable had its most frequent response at “some”, N=23, 20.7% and its least frequent response was for “not at all”, N=1, 0.9%. “On-campus interviews” had a stronger impact on subject’s transition to life after college with “very much” being the most frequent response at N=20, 18% and the least frequent response was “not at all” at N=1, 0.9%. Use of career services “resource library” provided “some” impact on this transition with the most frequent response of N=9, 8.1% and the least frequent response was a tie between “not at all” and “slightly” at N=2, 1.8%. The student use of “on-line resources” provided the strongest impact on this transition with the most frequent response of “very much” N=24, 21.6% and the least frequent at “not at all” N=2, 1.8%. The final service assessed was “one-on-one mock interviews” and the most frequent response was “some” at N=7, 6.3% and the least frequent was not at all at N=2, 1.8%.

Based on the mean scores found in the descriptive statistics in Tables 14, subject use of the “on-campus interviews” provided by career services had the strongest overall impact on the life after college transition (N=52, \bar{x} =3.75). “On-line resources” had the second strongest impact (\bar{x} =3.56) further, it was most used at N=79. In contrast, the variables “workshops” and “career resource library” tied with the lowest impact. Further, services with the lowest overall use was the “career resources library” (N=19, \bar{x} =3.16) and “one-on-one mock interviews” (N=22, \bar{x} =3.32). With both of these

statistical areas in mind, the career resource library has the least impact on the subject's transition to work/graduate school after college.

The descriptive statistics identified “on-campus interviews” and “on-line resources” as the two services that had the largest impact on student's transition to work/graduate school. “On-line resources” refer to a series of job/internship posting websites and on-line downloadable career development guides. These resources assist students at all levels to both better understand and explore the career areas that interest them or they provide students with leads on jobs or internships. Although the results are useful at providing evaluation of particular services, they do not statistically test the relationship between use of a particular services and the set of career development variables.

To statistically compare students' different evaluations of the nine particular services offered by career services, paired sample t-tests were used. Instead of comparing all possible pairs, which would have yielded 56 separate comparisons, only one specific service (“one-on-one advising/counseling”) was used as the basis for comparison. That item was chosen because it was the most frequently used service based on subject survey responses.

Table 14

Percentages of UCS Services

| Services | Response | | | | | | | | | | \bar{x} | SD |
|--------------------------------|------------|------|----------|------|------|------|------|------|-----------|------|-----------|------|
| | Not At All | | Slightly | | Some | | Much | | Very Much | | | |
| | N | % | N | % | N | % | N | % | N | % | | |
| One-on-one advising/counseling | 16 | 14.4 | 19 | 17.1 | 23 | 20.7 | 19 | 17.1 | 9 | 8.1 | 2.84 | 1.26 |
| Workshops | 3 | 2.7 | 16 | 14.4 | 17 | 15.3 | 11 | 9.9 | 3 | 2.7 | 2.90 | 1.02 |
| Events | 1 | 0.9 | 13 | 11.7 | 23 | 20.7 | 17 | 15.3 | 13 | 11.7 | 3.42 | 1.06 |
| On-campus interviews | 1 | 0.9 | 8 | 7.2 | 14 | 12.6 | 9 | 8.1 | 20 | 18 | 3.75 | 1.19 |
| Career resource library | 2 | 1.8 | 2 | 1.8 | 9 | 8.1 | 3 | 2.7 | 3 | 2.7 | 3.16 | 1.17 |
| On-line resources | 2 | 1.8 | 17 | 15.3 | 18 | 16.2 | 17 | 15.3 | 24 | 21.6 | 3.56 | 1.21 |
| One-on-one mock interviews | 2 | 1.8 | 3 | 2.7 | 7 | 6.3 | 6 | 5.4 | 4 | 3.6 | 3.32 | 1.21 |

Table 15 summarizes the results of the paired sample t-tests that were completed for each of the career service variables. The pair of “one-on-one advising/counseling” and “on-campus interviews” had a t-value of -3.32, which was significant at $p < 0.01$, and had the strongest impact on users transition to work/graduate school. This also suggests that the mean score of “on-campus interviews” is significantly higher than “one-on-one advising/counseling”. The variable, “on-line resources”, had the second highest impact on the college to work/graduate school transition with a t-value of -2.47 and a p-value of $p < 0.01$. “On-line resources” also had a significantly higher mean score than “one-on-one advising/counseling”. The analysis pair of “one-on-one

advising/counseling” and “events” had a statistically significant result, however the t- and p-values were not as strong, -1.75 and $p>0.05$ respectively.

The remaining variables; “workshops”, “career resource library”, and “one-on-one mock interviews” did not have a significant impact on the transition to work/graduate school. None of their t-values were significant nor were any of their mean scores significantly higher than “one-on-one advising/counseling”. This result is somewhat surprising for “workshops” considering that they best simulate classroom instruction. Workshops have a designed curriculum that instruct students on basic career development skills, such as resume writing, interviewing, job searching, or attending a job fair. Furthermore, all career services counselors receive training on presentation skills to increase student learning.

Table 15

Paired Sample Results for UCS Services

| | One-on-one advising/counseling | | | Comparison | | | \bar{x} Difference | t-value |
|----------------------------------|-----------------------------------|-----------|------|------------|-----------|------|-------------------------|---------|
| | N | \bar{x} | SD | N | \bar{x} | SD | | |
| Workshops | 39 | 2.72 | 1.26 | 39 | 2.90 | 1.05 | 0.18 | -1.05 |
| On-line Resources | 62 | 3.00 | 1.29 | 62 | 3.52 | 1.30 | 0.52 | -2.47** |
| On-campus interviews | 38 | 2.89 | 1.25 | 38 | 3.76 | 1.22 | 0.87 | -3.32** |
| Career resource library | 17 | 3.24 | 1.44 | 17 | 3.06 | 1.14 | 0.18 | -0.46 |
| One-on-one mock interviews | 13 | 3.31 | 1.37 | 18 | 3.44 | 1.20 | 0.33 | -0.88 |
| Events | 52 | 3.00 | 1.24 | 52 | 3.38 | 1.09 | 0.52 | 1.75* |

* p<0.05

**p<0.01

***What Career Development Processes Differences Exist Between Those Who Used
Career Services and Those Who Did Not?***

The intention of this section is to examine another aspect of the comparison of users to non-users of career services. This analysis compares how users and non-users went about their career development and pursuit of a job or attending graduate school after college. Specifically, the analysis for this section will present each of the unique results that were gathered for users and non-users based on students' responses to the specific questions on the survey. For users, data will be presented on when they first

used career services, how many times each respondent used the office, and the services they used. The results for the non-users included why they have not used career services, who they sought for career-related assistance, and how many times they met with that individual(s).

Users went about their career development by accessing and utilizing the various services and programs offered by career services. Table 16 summarizes when self-identified users first used these services. The highest frequency for first visits to career services was during the user's junior year, specifically N=37, 33.3%. The sophomore year followed as the next most frequent year for first time visits for users at N=29, 26.1%. This was followed by the senior year (N=28, 25.2%) and the freshmen year had the lowest frequency for user first time visits (N=15, 13.5%). There were two respondents who did not recall when they first used career services (1.8%).

Table 16

Percentages of When Self-Identified Users First Used Career Services

| Year | N | % |
|---------------|----|------|
| Junior | 37 | 33.3 |
| Sophomore | 29 | 26.1 |
| Senior | 28 | 25.2 |
| Freshmen | 15 | 13.5 |
| Cannot Recall | 2 | 1.8 |

In order to gain a clearer concept of how users utilize career services, not only is it important to know when they first visited the office, but it is important to know how many times users visited the office thereafter. As the results in Table 17 indicate, the most frequent use of career services was for four visits (N=23, 20.7%), with the second most frequent count for ten visits or more (N=20, 18%). Another trend for users was that they visited career services steadily without much variance for one through three visits, specifically one (N=14, 12.6%), two (N=14, 12.6%), and three (N=19, 17.1%). Visits six through nine tapered off to range between 1 and 5 visits. Users either utilized career services for a short number of visits or they used the office extensively with visits of 10 or more. This trend is more likely a result of the different types of students and personalities, but a more detailed discussion will be provided in the final chapter.

Table 17

Frequency of Times Self-Identified Users sought Career Services for Career Advice

| Responses ^a | n | % |
|------------------------|----|------|
| Four | 23 | 20.7 |
| Ten or more | 20 | 18 |
| Three | 19 | 17.1 |
| Once | 14 | 12.6 |
| Twice | 14 | 12.6 |
| Five | 10 | 9 |
| Six | 5 | 4.5 |
| Eight | 4 | 3.6 |
| Nine | 1 | 0.9 |
| Seven | 1 | 0.9 |

^a \bar{x} =4.68, SD=3.01

The analysis of how non-users went about their career development covers three areas, specifically two that are unique and one that is parallel to the user analysis. The first will examine why non-users have not utilized career services and the second will identify who the non-users primarily sought for career assistance. The third part of this analysis will focus on an area that was also assessed for the users, specifically the number of times non-users sought out the primary resource.

The mission and goals of the career services office at the study institution are to provide career development services to the entire population of students attending this university (University Career Services, 2008). Some students do not utilize these resources. There are a number of reasons why they choose not to use career services, and this section will identify the reasons the non-users decided not to use the office. Table 18 summarizes non-users' responses to why they have not used career services. The reason with the most frequent response was "didn't think they could assist me", N=29 and 46.8%. Further, the second most frequent response was for "already had assistance with the job search", N=21, 33.9%. This suggests that for some non-users, they envisioned that career services would be of no help to them and they chose to seek others for assistance. Next, there were N=13, 21% subjects who were not ready to pursue job search and N=9, 14.5% who cited another reason for not using career services. Of the 62 subjects who responded to this question, only N=1 (1.6%) had never heard of career services.

Table 18

Response Percentages for Not Using Career Services

| Responses | n | % |
|--|----|------|
| Did not think they could assist me | 29 | 46.8 |
| Already had assistance with job search | 21 | 33.9 |
| Not ready to pursue job search | 13 | 21 |
| Other | 9 | 14.5 |
| Never heard of career services | 1 | 1.6 |

If career services is not used by subjects, there are a number of other individuals who may be sought to provide similar career development assistance. These individuals have varying levels of expertise with career-related issues. Table 19 summarizes who non-users sought for career development assistance. Parent or a family member were the individuals most frequently sought for career assistance with N=27.4, 19.4%. Professors were the next group of individuals who were sought for career assistance, N=17, 12%. These two groups were clearly the most utilized by non-users based on this frequency and percentage results. Non-users sought assistance through professional contacts or took their career development into their own hands for the next highest response, N=7, 11.3% for both. Mentors and advisors followed with N=6, 9.7% and friends with N=4, 6.5%. The individuals who had the lowest response for assisting non-users with their career development was other student affairs offices at the study institution, N=1, 1.6%.

Table 19

Response Percentages of Others Sought for Career Advice

| Responses | N | % |
|------------------------------|------|------|
| Parent or family member | 27.4 | 19.4 |
| Professor | 17 | 12 |
| Self | 7 | 11.3 |
| Professional contacts | 7 | 11.3 |
| Mentor | 6 | 9.7 |
| Advisor | 6 | 9.7 |
| Friend | 4 | 6.5 |
| Other student affairs office | 1 | 1.6 |

Of the three process areas assessed in this study for non-users, one was identical to the process for users, specifically the number of visits with the individual sought for career assistance. Table 20 summarizes the number of visits for non-users. The highest response rate for seeking career assistance outside of career services is ten or more times, N=27, 43.5%. The next highest response was five visits at N=10, 16.1%, followed by four visits (N=8, 12.9%), three visits (N=5, 8.1%), and one and eight visits (N=4, 6.5%). The lowest number of visits to their individual of choice was a tie between two and six visits (N=2, 3.2%). These results suggest that non-users tended to visit these individuals multiple times since four visits and above had larger frequencies, on average.

When comparing this career development process area to users, there is a distinct difference. Users tended to most frequently visit career services between one and four visits as well as ten+ visits. Non-users tended to most frequently visit their individuals four and five times (N=8, 12.9%; N=10, 16.1%) and more so over ten visits (N=27, 43.5%). There could be any number of reasons for this trend, and a full discussion will be presented in chapter five, however it could be that career services counselors have an expertise in career counseling and thus provided assistance succinctly and on target.

Table 20

Frequency of Times Others were Sought for Career Advice

| Responses | N | % |
|-------------------|----|------|
| Ten or more times | 27 | 43.5 |
| Five times | 10 | 16.1 |
| Four times | 8 | 12.9 |
| Three times | 5 | 8.1 |
| Once | 4 | 6.5 |
| Eight times | 4 | 6.5 |
| Twice | 4 | 6.5 |
| Six times | 2 | 3.2 |

To What Extent Did Services Gained by Non-Users Through Individuals Not Associated with Career Services Impact Career Development Learning Outcomes?

Many of the career services non-users also sought assistance with their career development but from other resources/individuals on- and off-campus. The following

section assessed the services they sought, but the services that were evaluated were slightly different than the services offered by career services. These services shared some of the same themes, but it was impossible to find any one campus resource that offered identical services, programs, and workshops. The services assessed include “one-on-one career advising/counseling”, “resume creation/review”, “interviewing”, “job/internship search strategies”, “career decision-making”, “career/occupational information”, “resources/job postings”, and “negotiating job offers”. This section will examine the frequencies and percentages associated with the levels of learning on these services. It would have been desirable to utilize a significance test, such as a t-test, on this data because it would have compared the means and identified if non-career services resources affect learning outcomes. Identical to the section presented on the analysis of the services offered by career services, a second sample was not available for comparison. Thus, this analysis is based on descriptive statistics.

Similar to career services, the services offered by other resources on-campus was assessed using a five-point Likert scale. The difference, however, was that these services assessed the level of learning that occurred as the subjects utilized them. Respondents evaluated each career development service on the five-point Likert scale from “no learning” to “high level learning”.

Each of the eight services that were examined provided a different image of what the respondents received after seeking assistance from a non-career services resource. The results are summarized below in Table 21. Results indicated means that ranged from a high of 3.48 for “one-on-one advising/counseling” to a low of 2.19 for “negotiating job offers”. For “one-on-one counseling/advising”, the frequency and

percentages indicated a higher frequency for learning with “moderate learning” at N=15, 24.2% and “high level learning” at N=22, 35.5%. In contrast, the lower frequency indicated that “no learning” had N=12, 19.4% and “minimal learning” at N=5, 8.1%. “Resume creation/review” had its highest frequency for “high level learning” at N=17, 27.4% and its lowest for “minimal learning” at N=7, 11.3%. “Interviewing skills” had its highest frequency for “no learning” at N=19, 30.6% and its lowest frequency at “minimal learning” at N=6, 9.7%. “Job/internship search strategies” had its highest frequency for “no learning” at N=18, 29% and its lowest frequency at “minimal learning” at N=8, 12.9%. “Career decision-making” had its highest frequency for “high level learning” at N=18, 29% and its lowest frequency at “minimal learning” at N=9, 14.5%. “Career/occupational information” had its highest frequency for “high level learning” at N=16, 25.8% and its lowest frequency at “minimal learning” at N=9, 14.5%. “Resources and job postings” had its highest frequency for “no learning” at N=16, 25.8% and its lowest frequency at “moderate learning” at N=9, 14.5%. “Negotiating job offers” had its highest frequency for “no learning” at N=26, 41.9% and its lowest frequency at “moderate learning” at N=4, 6.5%.

Of the various services assessed by the survey, “one-on-one counseling/advising” and “career decision-making” had the strongest levels of learning, with N=22, 35.5% and N=18, 29% respectively. Thus, non-users are gaining valuable assistance by having face-to-face meetings with various resources on and off-campus and these resources are helping non-users the most with deciding what they want to do after they leave college. Conversely, resources other than career services were not able to incur high levels of learning for the skill of “negotiating job offers”, N=26, 41.9%.

Table 21

Percentage of Learning Experienced When Services Were Offered by Non-UCS Sources

| Services | No Learning | | Minimal Learning | | Some Learning | | Moderate Learning | | High Level Learning | | \bar{x} | SD |
|---|-------------|-------|------------------|-------|---------------|-------|-------------------|-------|---------------------|-------|-----------|------|
| | N | % | N | % | N | % | N | % | N | % | | |
| One to one advising/ counseling | 12 | 19.4% | 5 | 8.1% | 8 | 12.9% | 15 | 24.2% | 22 | 35.5% | 3.48 | 1.52 |
| Resume creation/ review | 14 | 22.6% | 7 | 11.3% | 13 | 21.0% | 11 | 17.7% | 17 | 27.4% | 3.16 | 1.52 |
| Interviewing | 19 | 30.6% | 6 | 9.7% | 13 | 21.0% | 13 | 21.0% | 11 | 17.7% | 2.85 | 1.50 |
| Job/ Internship search strategies | 18 | 29.0% | 8 | 12.9% | 11 | 17.7% | 12 | 19.4% | 13 | 21.0% | 2.90 | 1.53 |
| Career decision- making | 12 | 19.4% | 9 | 14.5% | 12 | 19.4% | 11 | 17.7% | 18 | 29.0% | 3.23 | 1.50 |
| Career/ occupational information | 12 | 19.4% | 9 | 14.5% | 10 | 16.1% | 15 | 24.2% | 16 | 25.8% | 3.23 | 1.48 |
| Resources and job postings ^a | 16 | 25.8% | 11 | 17.7% | 12 | 19.4% | 9 | 14.5% | 13 | 21.0% | 2.87 | 1.50 |
| Negotiating job offers | 26 | 41.9% | 14 | 22.6% | 12 | 19.4% | 4 | 6.5% | 6 | 9.7% | 2.19 | 1.32 |

^a One student response was missing for this variable

CHAPTER V

DISCUSSION, IMPLICATIONS, AND FUTURE RESEARCH

Introduction

As the final step in this dissertation, this chapter will examine all of the data and analysis that were collected from this study's research questions and it will present any findings and relevant conclusions. This examination will supply usable information about whether or not the use of career services has an impact on undergraduate college students and what they learn. Furthermore, these results will identify any gender or race/ethnicity differences with respect to use of career services and learning outcomes. A review of the services offered by career services as well as a comparison of these services and other career resources sought by non-users of career services will also be supplied. This chapter will contain a brief summary of the study, it will draw conclusions and present discussion points to each of the research questions, identify any relevant connections to the literature, provide useful outcomes for practitioners, and offer suggestions for future research on this topic.

While completing chapter four, an issue arose with the study design. The analysis and results concerning the group membership of career services users and non-users was not as straight forward as it had been expected when the study was designed. As with any good research design, a validity check was created. Rationale for this validity check was based on significant differences in the composition of the two groups of users and non-users, which were found in the results. This difference was a function of whether records that were used on the self-designation were used as a basis for

distinguishing between use and non-use. It was learned by the researcher after the fact that the official records were not as accurate as had been thought, subjects could have used career services without registering in the CareerCat database. As a result of this complication, it became necessary to conduct parallel analyses for the two approaches for distinguishing between the groups; specifically the original study design and subject self-designation. An independent variable was created based on subjects responses to the survey question, “have you used career services as an undergraduate” and the official records used in the original study design. Other approaches were considered for data analysis (e.g. defining users as those for whom records and survey responses individually indicated that they were users or non-users), but none were used because they could not clearly identify all users and non-users.

Summary of the Study

This study was designed to assess the effect a student affairs office, specifically career services, has on student learning and learning outcomes. Although little research has been completed on this specific topic, linkages can be drawn between the greater body of higher education research and this study. This section will review any connections that were found between the literature and the present study. These connections to the literature will serve as drivers for the study summary that will follow.

Much of the higher education research has focused on the learning that takes place within the classroom, but more recent research has determined that classroom learning and its outcomes are not an accurate representation of comprehensive student learning. In fact, Kuh (1993) determined that learning outside of the classroom can

reach up to 70% of what is learned while in college. This statement was supported by a document entitled *Learning Reconsidered* (NASPA & ACPA, 2004), which called for the student affairs profession to create learning environments and motivate students to develop lasting learning outcomes. More specifically, *Learning Reconsidered* announced the need for educating the whole student, particularly inside and outside of the classroom. Bliming and Whitt (1998), along with ten other scholars, developed seven principles of good practice in student affairs. These seven principles also called for student affairs to engage student learning, but also encourage student development of values and ethics. Furthermore, others requested setting high expectations within the profession to incite student learning. The current study of assessing the impact career services has on student learning outcomes incorporates the doctrines of these landmark documents to determine if any measureable effects exist.

Institutions in recent years have begun to ask student affairs offices to assess and collect metrics on student learning and its outcomes in order to respond to internal and external accountability requests. *Learning Reconsidered* (NASPA & ACPA, 2004) and the *Student Learning Imperative* (ACPA, 1996) laid the foundation for student affairs offices to become prepared for this call. The assessment of career service offices plays a vital role in gathering the data necessary to respond to these documents and requests. Anderson (2001) stated that student affairs plays a vital role in the assessment of learning outcomes. The results of the current study on the impact career services has on its users, points to the importance of assessment and that student learning does occur outside of the classroom.

The intention of this study on student learning outcomes is to demonstrate how career services contributes to educating the whole student and to provide usable evidence of student learning. The knowledge claim of this study is that if students use career services, they will more likely develop career-oriented life skills that will positively impact student learning outcomes and their career success than those undergraduate students who do not use this office. The argument is that non-users are not gaining employment or career development skills so they are less likely to have a job at graduation or can be able to use these skills during their lifetimes. Career services should have a greater impact on student learning outcomes, specifically career development learning outcomes, because it offers counselors who are extensively trained to assist students on these topics and targeted resources. Other resources, including faculty, parents, or other student affairs offices, may not be as well prepared to assist students with their career development.

In order to answer the knowledge claim and the arguments associated with this study, the following questions were developed. These questions were impetus for this research study and they include:

- 1) What learning outcome differences exist when comparing students who participate in the services offered by career services to those who do not?
- 2) What differences in learning outcomes exist when comparing undergraduates by gender?
- 3) What differences in learning outcomes exist when comparing undergraduates by race/ethnicity?

- 4) What specific services had the most significant impact on student learning?
- 5) What career development processes differences exist between those students who used career services and those who did not (career development process: how students went about career decision-making or the job search process)?
- 6) What advice/instruction did students who did not use career services receive that impacted their career oriented learning outcomes?

These research questions were adapted into a survey that was administered to 800 total undergraduate students at a selective research university, 400 were users of career services and 400 were non-users. The survey was housed on-line using a vendor called StudentVoice and students were recruited to participate via five email contacts. Of the 800 students, 204 responded to the email notices and completed a survey, providing a return rate of 26%.

The data that was gathered was statistically analyzed to both examine the data itself and to determine significance. Statistical testing was completed using the statistical software SPSS. The analysis began by examining descriptive statistics, specifically mean, standard deviation, and percentage, where appropriate. Descriptive statistics were completed for the user and non-user comparisons based on both the institutional and career development learning outcomes. Descriptive statistics were also completed for characteristics of those who responded to the survey, specifically gender, race/ethnicity, undergraduate degree, graduation date, and school of enrollment. This preliminary data assisted in the early identification of how the subjects responded to the

survey, but it also displayed any relationships or issues in the data. This was useful in the selection and execution of additional statistical analyses.

Upon completing and analyzing the descriptive statistics, an inference for distributions, specifically a t-test, was completed for the institutional and career development learning outcomes as well as the gender variable. This test worked well since it compares the average mean scores of two samples, and in the case of this study, it compared users and non-users of career services.

A different significance test than the t-test was used to examine the race/ethnicity variable, specifically a one way analysis of variance (ANOVA). Since there were 10 different race/ethnicity variables being assessed, this test fit well because it compares more than two mean scores. The results of the ANOVA indicated a significant relationship between the race/ethnicity variables, so an additional test was completed to determine exactly where the relationship was amongst the variables. A Post-Hoc test, specifically Scheffe's Method, was used since it was able to compare multiple comparisons.

The final advanced statistics that were used for this study were utilized to assess the services offered by career services, as well as the services offered by other resources, and their impact on the respondent's transition to a job or graduate school. A pair-wise t-test was used to identify any significant relationships between the services and their impact, if any, on the respondents. This statistic was chosen since the study design did not provide a second service sample to compare against each service.

Learning Reconsidered (NASPA & ACPA, 2004) called for student affairs professionals and offices to re-focus their energy on student learning and creating

environments that are conducive for learning. The study that is being presented is contributing to this call by examining institutional and career development learning outcomes based on the use or non-use of career services. This study will identify any learning outcomes that are significant. Furthermore, it will see if descriptive variables including gender, or race/ethnicity, impact student learning outcomes. The following section will discuss the results of the six research questions as well as provide implications for future study.

Discussion

Based on the results presented in chapter four, a detailed discussion will be provided in this section. Data that was collected and any findings are specific to each research question. The results indicated significant differences for some of the institutional and career development learning outcomes as well as for race/ethnicity, degree, and school of enrollment. Comparisons or connections to related literature already in the field were also made.

Question # 1

What learning outcome differences exist when comparing students who participate in the services offered by career services to those who do not?

Descriptive Statistics

There were 204 subjects who responded to survey questions that addressed this primary research question, with N=110 identifying themselves as users (53%) and N=94 identifying themselves as non-users (46%). A chi-square test was used to compare

career services users and non-users based on gender, race/ethnicity, undergraduate degree, graduation date, and institutional school of enrollment. These chi-square tests did not find significant differences for gender, race/ethnicity, and graduation date.

The chi-square tests did find significant differences for undergraduate degree and school of enrollment. Specifically for undergraduate degree, there was a significance level and chi-square result of $p > 0.05$; $\chi^2 = 6.3$, thus there was an association between use of career services and undergraduate degree. Based on the mean scores, seniors with a BA degree were more likely to use career services in comparison to seniors with BS or BMusic degrees. This result suggests that the BA curriculum at the study institution supports the use of career services or has career development as a component of its plan of study. Although there was a significant difference found for this variable, the results cannot be generalized beyond the study institution. Since only one school was assessed, it is possible for an institutional effect where the results are exclusive to the programs and curriculum at the study institution.

There was also a significant association between the use of career services and institutional school of enrollment, $p > 0.05$, $\chi^2 = 3.67$. These results indicate there is an association, but when examining the descriptive statistics more closely, there are additional significant differences between the individual schools of enrollment and use of career services. When comparing the mean scores for users and non-users, the School of Communication had higher scores for non-users. The School of Education and Social Policy (SESP) had higher scores for users, which could be a result of specialized programs and classes that are offered to its students. SESP conducts a quarterly meeting to orient transferring sophomores to the school. This program is held at the

career services office and all transferring sophomore must participate in an office tour and hear about career services. SESP also offers a mandatory practicum that all students are required to have before the graduate. As a part of this program, all students are required to go to the career services office and participate in a walk-in advising session as well as get their resume checked.

The School of Engineering and Applied Science (EAS) did not have mean scores favoring use or non-use of career services. The mean scores were identical. For the School of Journalism, however, subjects had a higher score for non-use of career services. This is likely due to the fact that the School of Journalism has their own career services office. Their students are free to utilize both offices, but it is possible that some of the student who responded to the survey had used School of Journalism career services and had been satisfied enough not to seek the other career services office. The College of Arts and Sciences (CAS) had a higher score for use of career services, in fact it had the highest percentage of users in comparison to all other schools assessed in this study. This result is not that surprising considering that the CAS has the largest number of enrolled undergraduates. The academic advisors and the faculty routinely make student referrals to career services, which might contribute to more student participation in career services. The two remaining schools, School of Music and School of Continuing Studies, did not have samples for both users and non-users, so no results were included in this section.

The results from this assessment of institutional school of enrollment should also be generalized with caution. This study focused on the colleges from one university and each of the colleges has its own unique curriculum and view on the integration of

career development. Some institutional schools of enrollment have specialized programs to encourage engagement with career services and these programs are not universal across all private or public research universities.

Institutional Learning Outcomes

As stated in the chapter IV, the study design of the comparison of users and non-users of career services based on both institutional and career development learning outcomes had a flaw in group identification. The remedy to this issue was to develop a validity check using the original study design and each respondent's self-designation of use of career services. Through this validity check, subject survey responses were tested using a t-test to identify any significant differences.

The ratio of users to non-users on survey question responses pertaining to institutional learning outcomes was visibly skewed and this difference reinforced the notion of establishing a validity check for this assessment. By the original research design, there were 63 more users than non-users, while the self-designated designation only had eight more users than non-users in the sample. The results obtained from the self-designated designation could in fact have stronger outputs since the samples are closer in numbers of users and non-users. Closer mean scores result in a more accurate t-test (Moore & McCabe, 2006).

The examination of the descriptive statistics for both the study design and self-designated designations found the mean scores to be somewhat similar and there were no strong deviations from one to the other. The self-designated designation found all users and non-users to have gained "moderate" to "high level" learning based on the

outputs of the mean scores. Furthermore, the mean score differences were small, with the highest difference for the variable “knowing how to gain new knowledge, how I have integrated this new knowledge, and apply it to new situations” (4.26 user, 4.11 non-user). The study design designation found “moderate” to “high level” learning for two of the variables. However, for the variable “have the ability to manage my university experience to achieve academic and personal success” the non-user mean score was “some” to “moderate” level of learning while the user learning was “moderate” to “high level” learning (4.18 user, 3.96 non-user).

Based on the descriptive statistics, the results of the chi-square tests indicated mixed conclusions on student learning with regard to institutional learning outcomes. The original study design found learning to be slightly higher for users than for non-users according to the mean scores. Conversely, the self-designated designation found learning to be slightly higher for non-users based on the mean scores of each group. Despite the mixed results of the mean scores for users and non-users, both groups had consistent levels of learning across the variables with the highest means. The results suggest that the use of career services does have some impact on increased institutional learning outcomes, although that conclusion is not strong since the two designations had differing outputs.

Based on the chi-square results, further analysis was needed to examine the difference between the use and non-use of career services on institutional learning outcomes. Independent sample t-tests were completed on user and non-user responses to the institutional learning outcome survey questions. Taking into account the study design and self-designated designations, the results of these tests indicated that for three

of the learning outcome variables, there were differences between use and non-use of career services. Although each designation had different variables that were significant, these results indicate that the non-use of career services resulted in greater learning outcomes.

For one of the significant outcomes that contributed to the non-use of career services having an impact on institutional learning outcomes, there is an institutional factor that may have been the cause. The significant learning outcome was “Perspective on how my degree will contribute to my overall career” ($p > 0.01$). The significance may be a result of the fact that the students at the study institution are motivated by peer competition. Many students participate in a large number of student activities and organizations. They also interact with employers through internships and faculty through research projects. These interactions can cause the increased perspective on how their degrees will fit careers.

The remaining four institutional learning outcomes did not provide significant results that identified a difference between the use and non-use of career services based on these outcomes. Although there is no evidence tested and found from this study, a potential cause for this could be the study institution. Kuh (1993) found that the type of school did make a significant difference with learning outcomes, thus the study institution may have impacted the subject’s responses to these variables. There may also be other factors that impacted this result, specifically, student participation in student activities or grade point average (gpa). Perhaps non-users gained significant leadership and skill development from participation in student activities, specifically those who hold an office or are on the executive board. These activities may have shaped the other

institutional learning outcomes rather than use of career services. It is also possible that users had lower gpas than non-users, which may cause the non-users to have better developed institutional learning outcomes.

Career Development Learning Outcomes

The number of subject's survey responses again support the notion of conducting a validity check for the flaw in the research design. The number of users compared to non-users by the original study design designation was again significantly favoring users with a difference of 84 subjects, specifically users=111, non-users=27. The self-designated designation again had subject responses more closely together, specifically users=79 and non-users 58. Similar to that of the institutional learning outcomes, this validity check will provide a clearer image of the results based on the use of career services.

The analysis for the career development learning outcomes started with descriptive statistics, specifically in the form of a chi-square test. Through the SPSS analysis of this test, the mean scores of the study design and self-designated designations were compared. Both designations resulted in "some" to "moderate" user and non-user learning across the three variables with the highest mean scores for each. The highest mean scores for the original study design had two variables with users of career services with the higher score, specifically "develop career development skills" and "apply those career development skills to your personal job/internship search". The highest, however, was for "conduct personal career reflection" with mean scores in favor of non-users (user: 2.80 and non-user: 3.93). The highest three mean scores for

the self-designated designation provided similar results as the study design designation. The highest mean score was for the variable “develop career development skills” (user: 3.44, non-user: 3.59) and the other two variables with the highest mean scores were for “apply those career development skills to your personal job/internship search” and “communicate effectively with employers or the person with whom you sought career assistance”.

Despite the fact that the mean scores across both the study design and self-designations alternated higher scores between users and non-users, there was consistent learning at the “some” to “moderate” levels. Use or non-use seemed to be irrelevant based on career development learning outcomes. All subjects who responded to this survey reported the same level of learning. The difference between users and non-users was based on the career development learning outcome variables. Although there was some variance between the study design and self-designated designations with regard to the mean scores for these variables, two were consistent between the two: (1) “develop career development skills” and (2) “apply those career development skills to your personal job/internship search”. The study design featured a higher mean score for users on both variables and the self-designated designation had higher means scores for non-users on both variables. The self-designated designation’s sample of users and non-users was much closer to having a more even representation of both groups (users: 79, non-users: 58). Thus, the results of these descriptive statistics are valid and useable.

Further analysis is needed to determine any significant differences between users and non-users of career services based on career development learning outcomes. To accomplish this analysis, independent sample t-tests were completed on both

designations to assess levels of learning. The results of these tests indicated different outputs based on each designation. The study design did not identify any significant differences between users and non-users based on career development learning outcomes. The self-designated designation was dissimilar to the original study design with two significant variables thus, having a difference between groups. The variables, “decide on a career that fits you” ($p < 0.05$, $t = 2.21$) and “develop an understanding of how your degree fits in the working world” ($p < 0.05$, $t = 2.12$), both provide evidence that there is a difference between users and non-users. There was no significant result based on the original study design. These results indicate that non-use of career services has an effect on increased learning outcomes. The remaining five career development learning outcomes did not significantly increase learning based on use or non-use of career services.

These results provide evidence that the non-use of career services impacts student acquisition of career development learning outcomes. These findings are compelling because past research has been inconclusive of such results. Oliver and Spokane’s (1988) research supported the idea that career services does have a positive impact on students and increasing student learning. Oliver and Spokane (1988) found individual counseling and career-oriented workshops had a positive impact on subject learning. Maguire and Killeen (2003), on the other hand, could not substantiate the claims of Oliver and Spokane (1988). In fact, Maguire and Killeen (2003) stated that no conclusive evidence could be presented to definitively claim that individual counseling impacts learning. The current study proves that in some environments, individual career counseling does not always impact student learning outcomes.

Question # 2

What differences in learning outcomes exist when comparing undergraduates by gender?

Descriptive Statistics

There were N=187 subjects who responded to the survey questions pertaining to gender designation, specifically N=81 (43%) males and N=106 (54%) females. Chi-square tests were completed on gender to identify any differences in learning outcomes. The results indicated that there were no statistically significant differences for gender based on learning outcomes. According to these results, men and women learn similarly on both institutional and career development learning outcomes. Further analysis is needed to determine if and how gender and the use of career services might impact specific learning outcomes.

Institutional Learning Outcomes

Additional statistics were completed to determine any significant differences by gender based on institutional and career development learning outcomes, specifically using individual sample t-tests. There was only one institutional variable that was found to be significant, “knowledge about the importance of being engaged in civic activities in the community” ($p < 0.05$, $t\text{-value} = -2.01$). Learning ranged from “some” learning to “moderate” learning on all variables except “have the ability to manage my university experience to achieve academic and personal success”, this ranged from “minimal” learning to “some” learning. This result may have occurred because of the number of female students who participate in charity or volunteer work during college. There may

also be a connection between female participation in service learning programs and engagement in civic activities. Bonsall, Harris, and Marczak (2002) and Astin, Vogelgesang, Ikeda, and Lee (2000) found that learning outcomes are linked to participation in service learning programs. Astin, Vogelgesang, Ikeda, and Lee (2000) found a number of direct impacts on students who participate in service learning, but found the strongest effect on career choice, specifically on pursuing careers in civic jobs. A linkage could be made between the female students in the current study, their exposure to service learning, and engagement in civic activities or careers. There may also be an institutional effect on these results since students at the study institution may have programs and resources more readily available.

Finding significant differences between males and females for an institutional variable supports a number of studies that also found gender difference based on student learning outcomes. Whitt, et al. (2003); Kuh (1993); Winter, McClelland, and Stewart (1981, as cited in Pascarella and Terenzini, 1993); and Lehman (1963) all found that there are differences between males and females on different components of learning and learning outcomes. The difference between the current study and these other projects is that these other studies found gender differences specifically with critical thinking development. Critical thinking was not found to be significant in the current study, however descriptive statistics determined that the variable “knowing that I have developed the ability to think critically, reflect, and reason” had the highest mean score for both males and females. Although there was a difference in mean scores, the difference was very small (males=4.40, females=4.41).

Career Development Learning Outcomes

Individual sample t-tests were also completed to determine if there were any significant differences by gender based on career development learning outcomes. The results of these t-tests indicated that there were no significant differences for gender and use of career service based on career development learning outcomes. Student gender does not impact learning of career development skills and outcomes. Learning occurs without consideration of gender. The levels of learning based on descriptive statistics indicated “minimal” to “some” learning across all variables.

Question # 3

What differences in learning outcomes exist when comparing undergraduates by race/ethnicity?

Descriptive Statistics

There were ten total race/ethnicity categories for which subjects could choose from in order to identify themselves on the survey. Of these ten variables, subjects only provided useable responses to eight and those eight were included in the entire analysis. Chi-square tests were completed to determine if there was a significant difference between race/ethnicity and use of career services. The results indicated that there were no significant differences between race/ethnicity and use of career services.

Based on the overall responses by race/ethnicity, there was varying use patterns discovered. Of the racial/ethnic groups assessed, White/Caucasian (N=82, 65.6%); Asian/Asian American (N=21, 75%); and Latina/o/Mexican American/Chicano (N=4.7, 71%) had the highest response rates and were found to use career services the most. A

reason behind these particular racial/ethnic groups being the highest users of career services could be because of their representation on campus. These three groups represent three of the highest racial/ethnic populations at the study institution, thus there are more students who potentially use career services in comparison to the other racial/ethnic groups. There is a higher likelihood that these highest populated groups would comprise the most frequent users. There may also be a cultural acceptance of seeking assistance on career issues for these groups.

Institutional Learning Outcomes

The descriptive statistics for race/ethnicity and the use of career services has found no differences, however when examining this analysis based on institutional learning outcomes, further testing is required to determine if differences exist between the racial/ethnic groups. An analysis of variance (ANOVA) was completed. The results indicated that the variables “knowing that I have developed the ability to think critically, reflect, and reason” ($F=3.308, p<0.01$) and “have the ability to manage my university experience to achieve academic and personal success” ($F=2.037, p<0.05$) were significant. The levels of learning for race/ethnicity ranged from “some” learning to “moderate” learning for all variables. The variable “knowing that I have developed the ability to think critically, reflect, and reason” had the highest mean scores across all race/ethnicities and had the strongest levels of learning with all race/ethnicity groups having mean scores with “moderate learning” except Asian/Asian American (3.91). The high frequency of this variable could be an institutional effect since the study institution is highly selective and recruits intellectually gifted students. Furthermore, the

institutional curriculum and co-curriculum could be designed purposefully to encourage critical thinking and analysis skills. Institutional-wide initiatives are in place to incite and assess learning outcomes to support this effect.

Career Development Learning Outcomes

Descriptive statistics and survey responses indicated that the different race/ethnicities learned at the same levels with regard to career development learning outcomes, specifically levels ranged from “some” to “moderate” learning. A similar ANOVA to what was completed for the institutional learning outcome analysis was completed for the career development learning outcomes. There were no statistically significant differences between the various race/ethnicities compared in this study. In fact, there is no data to conclude that different race/ethnicities learn about career development and career development skills any different than the other race/ethnicities.

Based on the results of the institutional and career development learning outcomes for race/ethnicity, there were three potential reasons for institutional learning outcomes having an effect and career development learning outcomes not having an effect. Perhaps for institutional learning, students are exposed to a number of different options, including: different majors, activities, athletics, residence halls, peers, faculty, and parental influence. Maybe these areas encourage the development of institutional learning outcomes and don't do the same for career development learning outcomes. There may also be a campus-wide initiative to develop and impart these learning outcomes on its students.

The socio-economic status of these groups may also impact learning for institutional and career development learning outcomes. Students from affluent secondary education may have been exposed to career counseling or career guidance before entering college. There could be subjects from disadvantaged backgrounds whose secondary education did not provide engagement in learning of this kind. Career related skills may not have been a priority, but institutional learning outcomes may have.

Student participation in the career development services offered by career services is on a voluntary, self-directed basis. The subjects at the study institution are not required to participate in any services. Brown (2005) remarked that career development is a non-required service, so it may not have as much impact due to limited student exposure. Students use the service as they want to, so this use may not occur until their senior year or even after graduation. This would severely limit student use and development of career development skills.

Question # 4

What specific services had the most significant impact on student learning?

Descriptive Statistics

Responses to the survey questions that pertain to this research question were completed by subjects who self-identified themselves as users of career services. These subjects were asked to evaluate and rate how career services impacted their transitions to work or graduate school based on the specific services offered. “On-campus interviews” and “on-line resources” were found to have “very much” impact on

subject's transition to work/graduate school, in fact these two were the variables with the highest scores. All other variables had "some" impact on subject's transition to work/graduate school. From these results, "on-campus interviews" and "on-line resources" had the greatest impact on users of career services. This could be because these resources provide immediate, tangible outputs, while "one-on-one counseling/advising" or "workshops" might not. This immediate gratification may be appealing to these students and encourage more frequent participation. Brown (2005) identified these types of services as being "transactional", much like consumerism, as opposed to more student development-oriented services that educate and provide useable skills. These student development-oriented services can sometimes take time to acquire, however provide longer lasting benefits.

Even though only "on-campus interviews" and "on-line resources" were found to have the highest mean scores, all of the other variables had an impact on subjects' transition to job/graduate school. The variables with the lowest mean scores impacted student learning with tangible results, in fact impact levels were between "slightly" and "some" impact. There were no variables that had the lowest impact of "not at all". The five service variables that had the most impact had levels between "some" and "much".

These impact results demonstrate that students are learning based on "on-campus interviews" and "on-line resources" variables. These results contradict the findings of Oliver and Spokane (1988) who found individual career counseling to have the largest treatment effect on learning. Individual career counseling provided the opportunity to spend longer periods of time with clients that have the potential to instill deeper levels of learning. Although this contradiction to Oliver and Spokane (1988) is

compelling, it is not completely appropriate since career services in the 1980s did not have the internet or electronic resources with the sophistication present today.

Brown's (2006) research on career services learning outcomes supports the current findings having significance limited to "on-campus interviewing" and "on-line resources". Brown (2006) discussed that career services offices are limited in their abilities to make a thorough impact on students and student learning. There are systemic and structural barriers that impede career services from obtaining a more desired impact on students. Some of these barriers include the fact that students are not required to use career services, they cannot be ordered to participate. Career counselors often have only small increments of time with each student, which does not produce the same levels of learning as faculty can generate. Faculty have longer periods of time to encourage student learning while in the classroom. Brown (2006) also recognized that there are limited ways in which a career services office can motivate students to participate in their services and learn. Faculty can motivate students to absorb material and learn through classroom grades, career services does not have this ability. Career services is no longer an office that places students into jobs, thus a job cannot be used as a student motivator to learn.

Advanced Statistics

Descriptive statistics identified services that made an impact on the study subject's transition from college to work/graduate school. Although this data is compelling, additional statistics were completed to assess if there was any significant differences between the services offered by career services. A pair-wise t-test was

completed to assess any differences between the services examined in this study. The variable, “one-on-one advising/counseling”, was the most used service offered, so it was used as the main comparison variable for this test. The results matched those found in the descriptive statistics in that “on-campus interviewing” and “on-line resources” had significant results when compared to “one-on-one advising/counseling”. The mean scores for these two variables were also found to be higher than “one-on-one advising/counseling”. This reinforces the concept that “on-campus interviewing” and “on-line resources” had the most impact on career services user’s transition to job/graduate school. The remaining services were not found to be significant, which also parallels the results of the descriptive statistics.

Question # 5

What career development processes differences exist between those students who used career services and those who did not (career development process: how students went about career decision-making or the job search process)?

This section will present the characteristic features of both users and non-users of career services based on how and how much they used career services and other campus resources. The study survey examined when users of career services first visited the office and how many times these users utilized the office. The assessment of non-users was different as the survey asked respondents to identify why they did not use career services for their career development and since they did not use career services,

who exactly did they seek for career assistance. Non-users were also asked to identify the number of times the non-career services resources they sought were used or visited.

Characteristics of Users of Career Services

The descriptive statistics of users of career services first examined when they recall first using the office. Respondent's junior year was identified as having the highest use frequency in comparison to all other undergraduate years. This may be a result of the changing importance of obtaining an internship before engaging in the full-time job search. NACE (2005) named students obtaining an internship as a critical issue facing career services. Many employers today are using interns as one of their primary means of recruiting new talent since they have a prolonged opportunity to assess each candidate. This is a paradigm shift in modern recruiting and students are realizing the importance of engaging career services earlier to obtain employment. Sophomores were the next class of students to utilize career services the most. This could be a result of the increased importance of internships, much like what is happening to juniors.

The other characteristic that was assessed on users was the number visits each respondent had to career services. The most frequent number of user visits was four visits, followed by ten or more visits. This suggests that subjects are utilizing career services multiple times to develop the skills or leads to gain employment or attend graduate school. It could also be deduced from these results that subjects were satisfied and perhaps were learning skills due to multiple uses of career services.

If subjects choose not to use career services, it is valuable to learn more about them, specifically why they forego this service and find alternative services elsewhere.

Furthermore, it is valuable to learn who they sought for career development assistance as well as the number of times these resources were visited. The reason behind subject's choice to not utilize career services identifies their confidence in the office's ability to provide helpful assistance. The most frequent response was that they "didn't think career services could assist them". There are a number of potential reasons for this response, perhaps they have a negative impression of what career services does, they may have had a previous negative experience with the office, or there may be an outside influence that is shaping their impression of career services. The second most frequent subject response to the question of why they did not use career services was that they had already found career development assistance. There was no need to pursue career services because they were content with the alternative resource they were using.

The results of the "if you have not used career services, please indicate why" survey question offered useful data for the study institution. It was informing that of all the subjects who chose not to use career services, only one subject had not heard of career services previous to completing the study survey. The existence of the office is known amongst the subjects, so the argument cannot be made that students did not know about the office, thus they did not engage in its services. The non-users made a choice of whether or not they used career services.

Survey respondents chose from a list of alternative career resources to identify the one they used for their career development. Subjects most frequently used a parent or family member for assistance (N=27, 19%), followed by a professor (N=17, 12%). These two resources were the most utilized of all the resources offered in the question. Developmentally, it would make sense that some students choose to use their parents or

a substitute authority figure to guide them in their career development process. Chickering and Reisser (1993) stated in their research on college student development that during college students are developing their own identities and are becoming independent of their parents. Some students might be developmentally slower at making this transformation than others. Subjects may also use professors for their vast subject expertise and professional contacts.

The results of the survey question pertaining to the number of times non-users utilized non-career services resources varied slightly from users. For non-users, the most frequent number of visits was ten or more times to develop their career skills and progress in their job/graduate school searches. The second most frequent number of visits to this resource was five visits. The difference in the number of visits between users and non-users of career services was evident but not significant. User most frequent number of visits was four visits then ten or more visits. Non-users utilized their alternative resources more frequently. The difference between users and non-users could be due to the fact that career services has trained career counselors who provide informed services to students. Students may receive the services they require at a faster rate. Career services also offers a variety of career development resources and services that can provide information and instruct on career skills. Brown (2005) found that students who use career services nine times or less are either seeking services as a “transaction” (e.g. “review my resume”) or may have unrealistic expectations of what career services does and may see their assistance as not helpful. Thus, students may not use career services beyond four times because of these expectations. Career services professionals should develop strategies to compensate for these expectations.

Question # 6

What advice/instruction did students who did not use career services receive that impacted their career-oriented learning outcomes?

Non-users were asked on the study survey to “rate how much you learned through the following services that were offered by individuals outside of career services”. The service choices were slightly different than the ones offered to users, specifically non-users were assessed on “one-on-one advising/counseling”, “resume creation/review”, “interviewing”, “job/internship strategies”, “career decision-making”, “career/occupational information”, “resources and job postings”, and “negotiating job offers”.

Descriptive Statistics

This section will identify which services were the most frequently used and which ones impact subject learning outcomes. Of the eight services being assessed, the most frequent mean scores were for “one-on-one advising/counseling” (3.48), “career/occupational information” (3.23), and “career decision-making” (3.23). The least frequent service used was “negotiating job offers” (2.19). The learning levels associated with these services ranged from “minimal learning” to “some learning”. The highest levels of learning for services offered by non-career services resources was for “one-on-one advising/counseling”, “career/occupational information”, and “career decision-making”, which ranged from “some learning” to “moderate learning”.

User to Non-User Comparison

Although the services analyzed in this study did not match perfectly for users and non-users of career services, it is relevant to identify any similarities or differences between the two groups. The variable, “one-on-one advising/counseling” was the only service that was assessed for both users and non-users of career services on the study survey. In comparing the results for both groups, non-users had higher learning with a mean score of 3.48, which ranged from “some learning” to “moderate learning”. The user’s mean score was 2.84, which results in learning levels ranging from “minimal learning” to “some learning”. From these results, non-users learned more from resources other than career services than users did from career services.

Services that were most frequent with non-users were “one-on-one advising/counseling” (3.48), “career/occupational information” (3.23), and “career decision-making” (3.23), while services that were most frequent for users were “on-campus interviewing” (3.75), “on-line resources” (3.56), and “events” (3.42). The most frequently used services for non-users are mostly career counseling in nature, while the services most frequently used by users are events that don’t involve a counselor. It seems that subjects are drawn to alternative resources to assist them with determining what they want to do through advising/counseling where users of career services want the events and resources. Any conclusions drawn from this data must be used with caution since only “one-on-one advising/counseling” was assessed for both groups.

It may also be reasonable to deduce that career services and other alternative resources may offer different approaches to providing students with career development assistance. Specifically, career services may be using a career education model, which

provides students with career development skills, which often culminates in a job search. It is plausible that alternative resources could be providing answers to questions rather than developing career skills. This method would provide subjects with more initial gratification where career services would provide skill development that can be used for the long-term.

Further Research

The study of impact the office of career services has on the learning outcomes of users and non-users has provided insight into the differences that can exist for two groups on one college campus. The results are compelling and offer useful data for career services practitioners and for officials at the study institution. There are a number of studies that could extend what is presented in this document. This further research includes:

- 1) Since this study collected data at one point in time, it would be valuable to identify a sample and survey their opinions on the use of career services and their learning outcomes at the beginning of their senior year and then collect responses at the end of their senior year. Since the senior year is often the most common time for students to engage in their career development, this would be a prime time to conduct this analysis.
- 2) It might also be interesting to identify a sample of users and non-users and examine their career development longitudinally from Freshmen/Sophomore to senior years. This study would be a true assessment of career development learning at one institution.

- 3) There is little research on race/ethnicity and career development learning outcomes, thus a more focused and intensive study would benefit practitioner in an ever diversifying field.
- 4) It would be interesting to examine the impact gender has on users of career services and the link to be engaged in civic activities in the community. This study identified a significant relationship between women, their participation in service learning, and the use of career services. Even though the outcome that presented this issue might be a result of an institutional effect, it would be beneficial to identify like institutions for a holistic view on this topic.

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Appendix A

Senior Transitions Survey

Now that you will soon receive your bachelor's degree from _____, it is an ideal time for you to reflect on your experiences here as an undergraduate, specifically how your time here has prepared you for life after graduation.

This survey is brief, so it should not take you more than 10 minutes to complete.

Section I: Background Characteristics

To assist in comparing responses from different groups of students, please respond to each of the following questions:

1) Gender (Check one):

(1) Female

(2) Male

2) Race/Ethnicity (Check one):

(1) Black/African American

(2) Asian/Asian American/Pacific Islander

(3) Caucasian

(4) Hispanic/Latino(a)

(5) Middle Eastern

(6) Native American

(7) Bi or Multi-racial

3) Which Degree Do You Expect to Complete?

(eg. BA,BS): _____

4) When will you, or did you graduate?

(eg. December 2007, March 2008, June 2008): _____

5) Major(s):

6) Have you ever participated in any form of service learning? (Service learning is a teaching and learning strategy that integrates meaningful community service with instruction and reflection to enrich the learning experience.)

(Check one)

Yes

No

7) If you have participated in service learning, please indicate the name of the program

*** If you have participated in service learning, please complete question 20 in addition to the rest of the survey that pertains to you and your situation.**

Section II: Career Development Learning Outcomes for Undergraduates

_____ has identified 21 learning outcomes that are desired for its undergraduates. Some of these 21 learning outcomes are used by faculty and staff to develop curriculum and programs that cultivate student learning. _____ has leveraged the remaining learning outcomes to develop 8 learning outcome domains. These domains represent the basic skills _____ seeks for all students completing their bachelor's degree. The learning outcomes included in these domains are: career development; civic engagement; cognitive complexity; knowledge acquisition, integration, and application; intra/interpersonal competence; humanitarianism; practical competence; and persistence and academic achievement.

If you have gained assistance with your career development during your time at _____, please respond to the following question (career development refers to career decision-making, internship and/or job search assistance, and skill development, which includes resumes, interviewing, communication with employers, offer negotiations, and how to network):

8) With the services you used in mind, please rate how what you learned impacted the following. Please use the following scale: (1=had no impact; 2=minimal learning; 3=some learning; 4=moderate learning; 5=high level learning)

- | | |
|--|-----------|
| a. Decided on a career field that fits you | 1,2,3,4,5 |
| b. Personal career reflection and processing | 1,2,3,4,5 |
| c. Evaluate career/job options | 1,2,3,4,5 |
| d. Career development skills (career decision making, resume, interviewing, using resources) | 1,2,3,4,5 |
| e. Applying those career development skills to your personal search | 1,2,3,4,5 |
| f. Effectively communicate with employers, person you sought for career assistance | 1,2,3,4,5 |
| g. Manage your own career development | 1,2,3,4,5 |
| h. Understanding of how your degree fits the working world | 1,2,3,4,5 |

Section III: UCS Services Usage for Undergraduates

In this section, you will be asked to indicate your familiarity with and use of University Career Services (UCS) during your time as an undergraduate at _____.

UCS refers to:

- An office on-campus that assists undergraduate and graduate students with all aspects of their career development.
- Is located at _____
- Assists with job or internship searching
- Helps with creating resumes or learning how to interview
- Brings employers on-campus to interview students for jobs and internships

9) Have you used UCS as an undergraduate?

(Use involves participating in one-on-one advising/counseling (including telephone and email), workshops (including resume or interviewing skills), events (including Internship Initiative, Mock Interviews: Practice with the Pros, or Career Expo), on-campus interviewing, and walk-in advising.)

(Check one)

Yes

No

Unsure

If yes, please complete questions 10, 11, 12

If no, please skip to question 13.

10) How many times do you remember using UCS for any of the above purposes?

(Circle one) 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 10+

11) Can you recall when you first used UCS?

a) First year

b) Sophomore

c) Junior

d) Senior

e) Cannot recall

12) The list below includes the set of experiences, programs, and services offered by UCS.

For each service, first indicate whether or not you used the service. Second, please provide your rating on how much it assisted you in your transition from college to the next phase of your life, whether that is entry into the workforce after graduation or continuing your education?

a) One-on-one advising/counseling Yes No

b) Workshops (resume, interviewing, job search) Yes No

c) Events (Internship Initiative, Career Expo) Yes No

d) On-campus recruiting Yes No

e) Career resource library Yes No

f) On-line resources (Vault, CareerCat, Art Search) Yes No

g) One-on-one mock interviews Yes No

(1=Not at all, 2=Slightly, 3=Some, 4=Much, 5=Very much)

a) One-on-one advising/counseling 1,2,3,4,5

b) Workshops (resume, interviewing, job search) 1,2,3,4,5

c) Events (Internship Initiative, Career Expo) 1,2,3,4,5

d) On-campus recruiting 1,2,3,4,5

e) Career resource library 1,2,3,4,5

- f) On-line resources (Vault, CareerCat, Art Search) 1,2,3,4,5
- g) One-on-one mock interviews 1,2,3,4,5

Section IV: Role of Others in Career Services for Undergraduates

For those of you who did NOT use UCS in your career preparation as an undergraduate, please respond to the following questions.

- 13) If you have not used UCS, please indicate why. (Check all that apply)
- a) Never heard of UCS
 - b) Didn't think they could assist me
 - c) Already had assistance with job search
 - d) Not ready to pursue job search yet
 - e) Other:
- 14) Please indicate who you sought for career, internship, or job advice:
- a) Professor
 - b) Parent
 - c) Friend
 - d) Classmate
 - e) Mentor
 - f) Advisor
 - g) Self
 - h) Other student affairs office
- 15) Please note how many times you sought that person(s) for career advice/assistance.
1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 10+
- 16) Please note if you sought any other people, in addition to the person in question 8, for Career advice/assistance.
- Yes
 - No
- 17) Please indicate the other people who you sought for additional career, internship, or job advice: (Check all that apply)
- a) Professor
 - b) Parent
 - c) Friend
 - d) Classmate
 - e) Mentor
 - f) Advisor
 - g) Self
 - h) Other student affairs office

18) How many additional people did you seek for career advice/assistance? (Circle number)

1, 2, 3, 4, 5, 6, 6+

19) Please rate how much you learned through the following services that were offered by individuals outside of UCS:

(1=did not learn; 2=minimal learning; 3=some learning; 4=moderate learning; 5=high level learning)

Services:

- | | |
|-------------------------------------|-----------|
| a. One-on-one advising/counseling | 1,2,3,4,5 |
| b. Resume creation/review | 1,2,3,4,5 |
| c. Interviewing | 1,2,3,4,5 |
| d. Job/internship search strategies | 1,2,3,4,5 |
| e. Career decision making | 1,2,3,4,5 |
| f. Career/occupational information | 1,2,3,4,5 |
| g. Resources and job postings | 1,2,3,4,5 |
| h. On-campus recruiting | 1,2,3,4,5 |

Section V: Service Learning's Impact on Senior Learning Outcomes

In this section, you will be asked to reflect on and respond to a question that will assess what you learned from participating in service learning. Examples of service learning programs at _____ are Alternative Spring Break, Chicago Field Studies, and the School of Education and Social Policy's Practicum Program.

20) With this service learning program in mind, please rate how what you learned impacted the following.

(1=Did not learn; 2=Minimal learning; 3=Neutral; 4=moderate learning; 5=high level learning)

- | | |
|---|-----------|
| a. Academic skills (GPA, critical thinking skills) | 1,2,3,4,5 |
| b. Values (tolerate and learn from others different than you) | 1,2,3,4,5 |
| c. Self-efficacy | 1,2,3,4,5 |
| d. Interpersonal skills | 1,2,3,4,5 |
| e. Evaluate career/job options | 1,2,3,4,5 |

THANKS FOR SHARING YOUR VIEWS!

Appendix B

Dear Senior,

I hope your senior year is going well for you.

In less than a week, I will be sending you an email that will present and explain a study I am conducting with the assistance of University Career Services. I am interested in learning more about how you have gone about your career development, specifically how you decided on your career and how you went about your internship and/or job search. Particularly, I am interested in how much you learned from developing these skills.

Your participation in this study is easy, you just complete a survey that will take less than 10 minutes to complete. Your responses to this survey, on the other hand, will be not only extremely helpful to me and my dissertation, but it will assist University Career Services to develop more useful services and programs.

Before I send you the survey, I am available to answer any questions you might have about the study. You may contact me at _____ or at _____.

Thank you.

Best,

Brett Boettcher
Assistant Director, University Career Services
Doctoral Candidate, University of Minnesota

Appendix C

Dear Senior,

My name is Brett Boettcher and I am an Assistant Director in the University Career Services (UCS) office and I am a doctoral student studying higher education at the University of Minnesota. UCS and I are conducting a study to examine how seniors learn job search and other career development-related skills (including internship searches, interviewing skills, and deciding on a career). Further, we wish to analyze how students gain these skills and what learning outcomes result.

We are asking that you take less than 10 minutes out of your busy schedules to complete our survey. Your responses will not only assist me to complete my dissertation, but it will provide UCS with critical information so we can develop and implement better, more useful services and programs to you and future graduating classes.

Participation is simple; just follow the link below to our survey. Please complete the entire sections that best fit your circumstances. If you have never used UCS, we are extremely interested in your responses and would like for you to complete the survey as well. We wish to learn more about the entire graduating class' career development pathways.

INSERT LINK HERE

If you have any questions, please feel free to contact me directly at _____ or _____. We greatly appreciate your willingness to complete our survey.

Thank you,

Brett Boettcher
Assistant Director, University Career Services,
Doctoral Candidate, University of Minnesota

Appendix D

Dear Senior,

About a week ago, I emailed a survey to you and asked that you participate in a study UCS and me are conducting. This study will examine the career skills you gained here at _____ and specifically what you learned in the process of acquiring these skills. We realize this is a very busy time, but we are very interested in your response.

We are asking that you take less than 10 minutes to complete our survey. Your responses will not only assist me to complete my dissertation, but it will provide UCS with critical information so we can develop and implement better, more useful services and programs to you and future graduating classes.

Participation is simple; just follow the link below to our survey. Please complete the entire sections that best fit your circumstances. If you have never used UCS, we are extremely interested in your responses and would like for you to complete the survey as well. We wish to learn more about the entire graduating class' career development pathways. If you have already completed the survey, THANK YOU.

Insert link here.

Thank you.

Best,

Brett Boettcher
Assistant Director, University Career Services
Doctoral Candidate, University of Minnesota