The Impact of Greek Life Membership on Vocational Identity, Career Self-Efficacy, and Goal Instability of College Students

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THE IMPACT OF GREEK LIFE MEMBERSHIP ON VOCATIONAL
IDENTITY, CAREER SELF-EFFICACY, AND GOAL INSTABILITY
OF COLLEGE STUDENTS

By
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First and foremost, this dissertation is dedicated to God, because without the strength, courage, wisdom, and grace He bestowed upon me, this dissertation would not have been possible. This process also reminded me that all things are possible through Christ who strengthens me (Philippians 4:13).

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# TABLE OF CONTENTS

LIST OF TABLES ................................................................................................................................. iix
LIST OF FIGURES ............................................................................................................................... x
ABSTRACT ............................................................................................................................................... xi
CHAPTER 1 .............................................................................................................................................. 1
INTRODUCTION ....................................................................................................................................... 1
  Statement of the Problem ......................................................................................................................... 2
  Social Significance .................................................................................................................................. 5
  Purpose of the Study .................................................................................................................................. 7
  Theoretical Framework .............................................................................................................................. 8
  Research Questions and Analyses ........................................................................................................... 8
  Key Assumptions .................................................................................................................................... 9
  Operational Definition of Terms ............................................................................................................ 10
  Delimitations ......................................................................................................................................... 13
  Summary ................................................................................................................................................. 14
CHAPTER 2 .............................................................................................................................................. 15
REVIEW OF LITERATURE ...................................................................................................................... 15
  College Identity Development .................................................................................................................. 15
    Erikson’s Stages of Psychosocial Development .................................................................................... 16
    Marcia and the Four Identity Statuses .................................................................................................. 16
    Seven Vectors of Student Development ............................................................................................... 17
  Career Theories and Identity Development ........................................................................................... 19
    John Holland’s Theory of Vocational Choice ....................................................................................... 19
    Secondary Constructs ............................................................................................................................ 21
    Vocational Identity ............................................................................................................................... 21
    Empirical Findings ................................................................................................................................. 23
  Social-Cognitive Career Theory ............................................................................................................. 25
    Self-efficacy .......................................................................................................................................... 26
    Empirical Findings ................................................................................................................................. 27
  Goal Instability ...................................................................................................................................... 30
  Summary ................................................................................................................................................. 34
Greek Life .................................................................................................................................................. 36
  Historical Roots and Governance .......................................................................................................... 37
  Demographics and Characteristics ........................................................................................................ 39
  Mission, Values, and Culture .................................................................................................................. 40
  Personal and Organizational Identity ..................................................................................................... 41
Greek Membership, Student Outcomes, and Development .................................................................... 42
Academic Performance ............................................................................................................................................. 43
Alcohol Use .......................................................................................................................................................... 44
Risky Sexual Behavior ......................................................................................................................................... 45
Psychosocial Development ............................................................................................................................... 46
Opportunities for Career Development .......................................................................................................... 48
Student Engagement ......................................................................................................................................... 50
Definition ......................................................................................................................................................... 50
Student Engagement Theories ......................................................................................................................... 52
Measuring Engagement ................................................................................................................................... 55
Research on Engagement and Student Outcomes ............................................................................................ 56
Mental Health and Engagement ....................................................................................................................... 57
Civic Responsibility and Personal Development ............................................................................................ 59
Academic Performance and Career Development ............................................................................................ 60
Greek Member Engagement and Educational Practices .................................................................................. 61
Critical Analysis of the Literature .................................................................................................................. 63
Gaps in the Research ......................................................................................................................................... 65
CHAPTER 3 ....................................................................................................................................................... 68
METHODOLOGY ............................................................................................................................................... 68
Research Questions and Hypotheses ................................................................................................................ 68
Research Question 1 ......................................................................................................................................... 68
Research Question 2 ......................................................................................................................................... 69
Research Question 3 ......................................................................................................................................... 69
Instrumentation ................................................................................................................................................ 69
Demographic Form .......................................................................................................................................... 70
Occupational Alternatives Questionnaire ....................................................................................................... 70
My Vocational Situation ................................................................................................................................... 71
Career Decision-Making Self-Efficacy Scale—Short Form .............................................................................. 72
Goal Instability Scale .......................................................................................................................................... 74
Greek Life Engagement Questionnaire ........................................................................................................... 75
Sampling ............................................................................................................................................................ 76
Power Analysis and Sample Size ...................................................................................................................... 76
Population .......................................................................................................................................................... 76
Sample Participant Characteristics .................................................................................................................. 77
Procedures ......................................................................................................................................................... 79
Research Design and Variables ........................................................................................................................ 80
Data Analyses .................................................................................................................................................... 81
CHAPTER 4 ....................................................................................................................................................... 82
RESULTS ........................................................................................................................................................... 82
LIST OF TABLES

Table 1 Sample Characteristics with Frequencies and Percentages ....................................................78
Table 2 Descriptive Statistics of Primary Variables of Interest by Population........................................84
Table 3 Univariate Test Effects of Hypotheses by Group ...................................................................85
Table 4 Comparisons of Greek and non-Greeks on Outcome Measures Using a 2X2 MANOVA ....87
Table 5 Univariate Test Effects of Hypotheses by Group on Self-Efficacy Subscales .........................90
Table 6 Comparisons of Greek and non-Greek on GPA .....................................................................91
LIST OF FIGURES

Figure 1. RIASEC Hexagon: Personality Types and Environmental Models ........................................20

Figure 2. What Matters to Student Success: National Postsecondary Education Cooperative ........51

Figure 3. The Learning Productivity Model .....................................................................................52

Figure 4. Maslow's Hierarchy of Needs .............................................................................................54
ABSTRACT

Approximately 10% of college students participate in Greek life each year, yet minimal research has been conducted on how these social experiences impact career development variables. The purpose of the present study was to examine the impact of Greek life membership on students’ level of vocational identity, career decision-making self-efficacy, and goal instability.

Participants included 436 seniors, 231 non-Greek students and 205 Greek life students, attending a large public research university during the fall 2012 academic year. Two independent variables (group and gender) and three dependent variables (vocational identity, career decision-making self-efficacy, and goal instability) were explored in the present study, with level of engagement and grade point average serving as moderator variables. The Vocational Identity (VI) Scale from the My Vocational Situation (MVS), Career Decision-Making Self-Efficacy Scale—Short Form (CDMSE—SF), and Goal Instability Scale (GIS) were used to measure vocational identity, confidence in making career decisions, and goal directedness, respectively. Additionally, the Revised Student Engagement Questionnaire (Handelsman, Briggs, Sullivan, & Towler, 2005) was adapted for the current study to assess student engagement levels. These measures were selected because of their psychometric properties and widespread use.

A one-way multivariate analysis of variance (MANOVA) and a two-way MANOVA were utilized to examine the first and second research questions, respectively. To explore the final research question, a multivariate analysis of covariance (MANCOVA) was performed. Overall, the results found that individuals participating in Greek-letter organizations reported a higher sense of vocational identity and career decision-making self-efficacy as well as lower levels of goal instability compared to their non-Greek counterparts. Furthermore, group membership accounted for 4% of the total variance among the three outcome variables. After
controlling for the covariate of engagement, the effects of membership in a Greek-letter organization remained significant for career decision-making self-efficacy and goal instability. However, strength of vocational identity did not significantly differ between the two groups after accounting for level of engagement. For each research question examined, gender had no effect. Limitations, implications, and areas for future research are also presented.
CHAPTER 1

INTRODUCTION

For more than 200 years, college students have had the opportunity to seek membership in Greek-letter organizations. Although participation in sororities and fraternities can foster friendship, leadership, scholarship, service, and overall college satisfaction, there is significant debate among college campuses about the value of involvement in such organizations (Pascarella, Flowers, & Whitt, 2001). For example, recent research suggests that Greek membership leads to risky sexual behavior, higher levels of alcohol consumption, hazing injuries, and negative cognitive development (DeBard, Lake, & Binder, 2006; Wechseler, Kuh, & Davenport, 1996). On the other hand, participation in sororities and fraternities can lead to positive outcomes, such as higher self-esteem, greater sense of belonging, and an increased sense of autonomy (Paxton & Moody, 2003). The reactions I had while reviewing empirical findings that question the value of Greek-letter organizations have led me to question how Greek membership relates to the overall career development of college students. Finally, this topic is both important and interesting as collegiate experiences can significantly impact student outcomes related to campus involvement, achievement, and overall personal development (Molasso, 2005).

This chapter introduces the reader to the purpose of the present study by discussing the statement of the problem and social significance, and then briefly identifies the research questions, theoretical framework, and conducted analyses. Finally, key assumptions, operational definitions of terms, and delimitations are addressed.
Greek-letter organizations are prominent across many United States college campuses. During the 2008 academic year, more than 90,000 women were initiated into sororities, 400,000 men participated in fraternities, and there are approximately 10 million alumni (i.e., male and female) currently nation-wide (Butler, 1999; IFC, 2010; NPC, 2009). Although the mission of Greek-letter organizations is to promote leadership development, encourage academic development, foster social development, and facilitate personal development, these organizations frequently receive negative attention from professors, administrators, and the media (DeSantis, 2007). Furthermore, research examining the effect of Greek life membership is mixed; some studies show that affiliation with a sorority or fraternity leads to higher levels of retention and college satisfaction, while others suggest that participation increases the risk of alcohol consumption and academic underachievement (Blimling, 1993; Pascarella, Flowers, & Whitt, 2001). It should also be noted that the majority of research focusing on Greek-letter organizations has primarily studied drug use, interpersonal violence, irresponsible behaviors, and risky sexual practices rather than how involvement impacts career development, decision-making skills, and behaviors related to career planning (Foubert & Granger, 2006; Lottes & Kuriloff, 1994). However, literature also supports that involvement in sororities and fraternities can positively impact educational and social outcomes; membership can promote learning, cognitive development, and related academic benefits and also higher levels of social or interpersonal skill development (Debard et al., 2006; Thompson, Oberle, & Lilley, 2011). Research conducted by Southern Illinois University (2011) indicated that Greek students had a 12% higher retention rate than non-members. Due to the large number of students who participate in Greek life, and because involvement in such organizations provides opportunities
for personal and professional growth, there is a need for additional research to examine unanswered questions relevant to this population.

Research consistently shows that social interaction, active involvement, and student engagement are critical factors for promoting college success (Astin & Vogelgesang, 2006; Astin 1993; Light, 2001). Additionally, researchers in the field of higher education suggest that student learning extends beyond the classroom and requires active participation in an individual’s environment. Allowing Greek-letter organizations to remain on American college campuses is one way to respond to the need for human interaction and social congregation, ultimately strengthening learning outcomes and fostering academic success. Research specifically examining the impact of Greek life membership on career development outcomes (e.g., vocational identity) may also provide a justification regarding the value of such organizations and how participation contributes to student retention and college satisfaction.

A review of the literature reveals that the majority of studies investigating the effects of Greek life membership lack comparison groups and have insufficient sample sizes (Mathiasen, 2005). While past research has broadly assessed the impact of Greek life membership on academic achievement, college adjustment, and overall cognitive development, minimal research has focused on specific constructs related to career development (DeBard, Lake, & Biner, 2006). Specifically, the present literature has not examined goal instability, career decision-making self-efficacy, or vocational identity among college students concurrently participating in Greek-letter organizations. On the other hand, career counselors and vocational psychologists have found significant relationships between higher levels of goal instability and lower career decision-making self-efficacy beliefs (Blustein, 1989). Similarly, previous research suggests that
individuals with greater goal instability experience lower levels of vocational identity (Bertoch, 20120; Santos, 2003).

Several logical assumptions or hypotheses can be made about students’ involvement in Greek-letter communities, although none of these have been empirically tested. The first is that these students typically receive social support, feedback, and encouragement, which can foster a sense of vocational identity as a member discovers strengths by participating in chapter events or serving as an officer. Another is that being part of such a community and having networking connections and access to social resources are primary factors for maintaining psychosocial well-being and adjustment, which often directly affect self-efficacy levels (Vieno, Santinello, Pastore, & Perkins, 2007). While previous research has not examined goal instability among Greek life students, it can be hypothesized that these students may experience less goal instability due to enhanced opportunities for networking, social contact, and requirements for goal commitment (e.g., raising money for philanthropic events).

Since minimal importance has been placed on the career development and vocational identity development of students affiliated with Greek-letter organizations, it would be beneficial to examine the impact of Greek life membership on students’ vocational identity, career decision-making self-efficacy, and goal instability levels. Results should promote increased understanding and awareness for administrators and student affairs personnel about the contribution of Greek-letter organizations to campus life. Similarly, findings can address how the mission and values of a Greek-letter organization support or detract from the missions of American institutions. Finally, research examining these variables can assist career practitioners in serving college students with diverse backgrounds—such as those who are active participants in Greek-letter organizations that have also acquired leadership, networking, or service
experiences. As a result, practitioners might further acknowledge how involvement in extracurricular activities (e.g., Greek life membership) impacts self and occupational knowledge or how participation in a sorority or fraternity facilitates the development of transferrable skills. Also, interventions could be tailored to fit the needs of these students, such as those geared toward increasing self-efficacy or fostering career goals.

**Social Significance**

The benefits of receiving a college education are well documented. For example, the United States Census Bureau (2005) reported that employees with an associate degree earned 19% more than individuals with only a high school diploma. Similarly, employees graduating with a bachelor’s degree earned 62% more, and those earning a master’s of science or doctoral degree received twice the pay. Likewise, individuals obtaining a college degree are more likely to have access to health insurance and employment opportunities, and crime rates are lower among college graduates (Harlow, 2003). In general, higher education institutions seek to enrich the lives of students by fostering academic excellence, personal development, professional competence, and financial stability. The mission and values of national Greek-letter organizations, as well as of individual chapters, also support the core values and ideals of universities—scholarship, personal growth, leadership, citizenship, advocacy, and consultation are commonly cited in the mission statements of Greek life chapters and are likewise found in student affairs departments in college campuses across the country (NPC, 2007).

As retention rates have decreased, graduation rates declined, and college expenses climbed over the past two decades, the need for accountability in higher education has significantly increased (Bracey, 1995). Additionally, there has been criticism regarding the value of higher education for student development and success. As educational institutions continue to feel demands and pressure for accountability and as funds become scarcer, Greek-letter
organizations may face increasing responsibility for showing how involvement both benefits the institution and also positively promotes student development. For Greek-letter organizations to survive, prosper, and demonstrate their overall worth, additional research is needed to justify the time and financial resources invested in these organizations and on other administrators working in the student affairs field. Likewise, it is necessary that these out-of-class experiences positively engage students and serve to complement the values, goals, and mission of an overall academic institution.

One purpose and rationale for allocating funds to institutional programs is to foster student learning and academic success. Investment in student affairs personnel who work with Greek life students is something that may decrease in priority and experience a reduction in funds if positive contributions to student persistence, graduation rates, and career development are not shown. On the other hand, academic institutions such as Temple University have increased funds allocated to Greek life personnel (e.g., $9,600 dollars in 2004 to $10,000 dollars in 2005) due to greater opportunities for meaningful engagement and unique learning experiences. The present study sought to better understand the role of Greek life affiliation and how it impacted the academic, personal, and career development of college students. A second purpose was to better understand how experiences in sororities or fraternities influenced students’ career development.

College students presenting with high vocational identity and positive career decision-making self-efficacy often report increased confidence in making good decisions and less psychological distress than students exhibiting low vocational identity or low self-efficacy beliefs (Holland, 1997). Similarly, students who have life goals and lower goal instability are often better adjusted and experience more college satisfaction compared to students with higher
levels of goal instability (Bertoch, 2010; Russell & Petrie, 1992). In order to enhance educational success and occupational satisfaction, it is important to investigate these concepts more closely. Current literature frequently links two of these core constructs (i.e., low vocational identity and low career decision-making self-efficacy), but no study has examined the integration of all three constructs yet.

**Purpose of the Study**

Greek-letter organizations have the potential to promote academic performance, social interaction, and positive career behaviors through leadership opportunities, alumni connections, risk management meetings, and philanthropy events. For example, social interaction often influences identity development (Chickering & Reisser, 1993; Erikson, 1974). Similarly, the relationship between an individual's interests and personality characteristics and a corresponding career choice is congruent with principles related to vocational theory and practice (Holland & Lutz, 1968; Super, 1957). Living in a house with other fraternity men or sorority women provides individuals with the opportunity to develop professional and “soft” skills that may not be taught or discussed in classroom settings. Still, however, little research exists regarding the experience of Greek life membership on students' career development.

The specific purpose of the present study was to examine how active membership in a sorority or fraternity impacted students' vocational identity, career decision-making self-efficacy, and goal instability levels. This study further contributes to the current literature while also providing outcome and evaluation data for university administrators, student affairs personnel, and career counseling processions. Finally, findings can inform staff about how experiences in Greek life, one important component of many college environments, can enhance self-knowledge, expand occupational knowledge, and foster constructive learning experiences.
Theoretical Framework

Several theories were used to conceptualize and examine the constructs investigated in the current study. To better understand vocational identity, Holland’s (1997) person–environment fit theory was utilized, while the social-cognitive career theory was applied to examine career decision-making self-efficacy and other variables related to vocational behavior. Both of these theories emphasize the roles of environmental influences (e.g., living in a sorority or fraternity) and interactions on behavior. Furthermore, research conducted by Scott and Robbins (1985) was included to examine the variable of goal instability and to identify the influence of Greek life membership on motivation and goal directedness. Additionally, student development and college identity development theories were incorporated to better understand the present population of interest. For example, Marcia (1980) focused on the process of exploration and commitment among individuals while Chickering and Reisser (1993) examined identity construction relevant to the college student population. It should also be noted that the professional literature provided support for each theoretical framework and corresponding assessment measures (e.g., Goal Instability Scale). Each theory will be discussed in greater detail in Chapter 2.

Research Questions and Analyses

Based on the statement of the problem, the aforementioned literature, and the potential impact of Greek life membership on vocational identity, career decision-making self-efficacy and goal instability, the following research questions were indentified to examine in the present study:

1. What is the impact of Greek-letter membership on college students’ vocational identity, career decision-making self-efficacy, and goal instability?
2. Do college students differ on average levels of vocational identity, career decision-making self-efficacy, and goal instability according to gender and participation or non-participation in Greek life?

3. After controlling for amount of engagement in Greek-letter organizations, is there a statistically significant difference among the dependent variables (vocational identity, career decision-making self-efficacy, and goal instability) by gender (female versus male)?

While additional information is provided in Chapter 3 regarding the overall research design and specific procedures for collecting and analyzing data, a quasi-experimental causal-comparative design using a sample of approximately 436 college students (231 non-Greek students and 205 Greek life students) was employed to address the above research questions. Multivariate analyses were also conducted to examine significant differences between the groups tested.

**Key Assumptions**

The following key assumptions were made about the assessments used and participants tested when conducting the present study:

1. Participants will provide truthful and honest self-report responses when answering questionnaire items, thus providing valid data for measuring study constructs (e.g., vocational identity) (Locke, 1996).

2. Behavioral intention, outcome expectations, negative career thoughts, and career decision-making self-efficacy beliefs are cognitive career concepts (Betz, Klein, & Taylor, 1996).

3. The administered assessment measures are valid and reliable.
4. The *Vocational Identity (VI) Scale* from *My Vocational Situation (MVS)* (Holland, Daiger, & Power, 1980) provides an accurate measure of participants’ vocational identity or the stability of ones’ goals, personality, and interests.

5. The *Career Decision-Making Self-Efficacy Scale (CDMSE)* (Betz et al., 1996) accurately assesses participants’ beliefs about their competencies in career decision-making.

6. The *Goal Instability Scale (GIS)* (Robbins & Patton, 1985) provides an accurate measure of the absence of orienting goals.

7. The *Greek Life Engagement Questionnaire*, adapted from Handelsman, Briggs, Sullivan, and Towler’s (2005) *Revised Student Engagement Questionnaire*, serves to accurately assess the amount of engagement in a Greek-letter organization.

**Operational Definition of Terms**

For clarification purposes and in order to avoid confusion regarding the meanings of several terms used in the current chapter as well as subsequent chapters, the following definitions are provided. It should also be noted that these terms are based on several theoretical models and/or organizations that will be described in further detail in Chapter 2.

- **Active Member**: An initiated member of a sorority or fraternity who is currently enrolled as an undergraduate student (Cornell, 2012).

- **Alumnae or Alumni**: Initiated members of sororities or fraternities, respectively, who are no longer in college (Cornell, 2012).

- **Career**: The “time extended working out of a purposeful life pattern through work undertaken by a person” (Reardon, Lenz, Sampson, & Peterson, 2009, p. 6).
• **Career Decision-Making:** A “process that not only encompasses career choice but also involves making a commitment to carrying out the actions necessary to implement a choice” (Peterson, Sampson, Lenz, & Reardon, 2002, p.316).

• **Career Decision Self-Efficacy:** “The degree to which an individual believes he or she can successfully complete tasks that are necessary in making career decisions” (Betz, Klein, & Taylor, 1996, p. 50).

• **Career Development:** “The total constellation of economic, sociological, psychological, educational, physical, and chance factors that combine to shape one’s career” (Sears, 1982, p. 139).

• **Chapter:** Represents the local campus group of a national sorority or fraternity (Cornell, 2012).

• **Formal Recruitment:** Represents the primary time period for selecting potential new members. Scheduled events are performed to meet and identify these students (Cornell, 2012).

• **Fraternity:** An informal name used when discussing Greek-letter men’s organizations (Cornell, 2012).

• **Goal Instability:** “A lack of goal directedness and inhibition in work …associated with preference for introverted activities and lowered career decisiveness, and lower interest pattern maturity” (Robbins & Patton, 1985).

• **Goals:** “Enable an individual to exercise forethought and choose their actions based on intrinsic motivations… [and ] further help people organize and sustain behavior over long periods of time” (Lent et al., 1994, p. 84)
• **Greek-letter organization:** Social organizations for undergraduate students that are based on principles related to scholarship, leadership, service, accountability, and brotherhood/sisterhood (Cornell, 2012).

• **Hazing:** A willful act by a member of an organization directed against a potential new member, often resulting in harm, danger, embarrassment, ridicule, or pain (Cornell, 2012).

• **The Interfraternity Council (IFC):** Represents the governing body made up of every fraternity on a specific college campus (Iowa State, 2012).

• **Latino Panhellenic Council (LPHC):** Represents the governing body for traditionally-based Latino/a sororities and fraternities (The University of Texas, 2012).

• **National Interfraternity Council (NIC):** Represents the governing body for the traditionally Caucasian Greek organizations for men (Cornell, 2012).

• **National Panhellenic Conference (NPC):** Represents the governing body for the 26 traditionally Caucasian Greek organizations for women. It should also be noted that each is autonomous and meets to discuss issues, rules, and policies of Greek-letter societies of women and alumnae (Cornell, 2012).

• **National Panhellenic Council (NPHC):** Represents the governing body for the nine historically African American chapters (Cornell, 2012).

• **Outcome Expectations:** “Personal beliefs about the consequences or outcomes of performing a particular behavior” (Lent, Brown, & Hackett, 2002, p. 262).

• **Panhellenic:** Represents the local governing council for all sororities on a specific college campus (Cornell, 2012).
- **Recruitment**: Processes in which potential new members meet one another, attend events, and learn about individual chapters (Cornell, 2012).


- **Sorority**: An informal name used to describe a group of women who have voluntarily joined together for friendship opportunities, leadership, and academic purposes (Cornell, 2012).

- **Student Engagement**: The time, effort, interest, and energy that students invest in meaningful and sound educational activities inside and outside the classroom as well as a student’s involvement in social conditions that promote high-quality learning (Kuh, 2003; Kuh et al., 2005).

- **Vocational Exploration**: “Self-appraisal and external search activities that provide information to foster the selection of, entry into, and adjustment to an occupation” (Bartley & Robitschek, 2000, p. 63).

- **Vocational Identity**: “Possession of a clear and stable picture of one’s goals, interests, and talents” (Holland, Johnson, & Asama, 1993, p. 1).

**Delimitations**

Several factors reduce the ability to generalize findings from the present study. First, only senior students, ages 19 to 25, attending a large Southeastern university were recruited to participate in this research. Similarly, not all Greek-letter organizations responded, and therefore not all are represented. Additionally, the individual chapter sizes were larger (e.g., \( n = 201 \)) than what is normal for a smaller university or liberal arts college (e.g., \( n = 85 \)). Based on these
delimitations and because only one institution was used when collecting data, results are limited to samples matching these characteristics. Furthermore, participation was voluntary, and information collected was based solely on self-reported measures rather than on direct observations.

Other delimitations related to measurement concerns. For example, only a few variables (e.g., vocational identity) were examined to assess the impact of Greek life membership and affiliation. Similarly, the current study did not include all possible perspectives or measures of vocational identity, career decision-making self-efficacy, or goal instability. Finally, experimenter bias could have influenced the style and writing of the current paper. Based on the researcher’s personal and positive experiences with Greek-letter organizations, it is possible that the decisions on what to include in the literature review, which measures to implement, and how results were interpreted and discussed could include bias.

**Summary**

This chapter has provided a brief overview of the perceptions of Greek-letter organizations and how participation in them may facilitate positive and negative student outcomes. The problem, social significance, and purpose of the current study have been identified, and the theoretical framework, research questions, assumptions, term definitions, and delimitations have also been presented. In Chapter 2, a review of the professional literature is given. Chapter 3 then reviews the research methodology; specifically, the sample is described, and questionnaires included in the study are also discussed. Finally, the research questions, hypotheses, overall design, and procedures for analyzing the collected data are examined.
CHAPTER 2

REVIEW OF LITERATURE

While the previous chapter discussed the rationale, research questions, and goals of the current study, this chapter provides a critical analysis of the literature related to the constructs of vocational identity, career decision-making self-efficacy, goal instability, and student engagement. After providing a separate theoretical framework for each construct, all four constructs will be reviewed and discussed together. Gender differences among the variables will also be provided to increase reader understanding of potential relationships. Additionally, literature related to Greek-letter organizations and the roles they play in student development and within American colleges and universities will be explored. Finally, content and methodological gaps in the literature are addressed.

College Identity Development

The concept of identity development and its formation are believed to be dynamic, frequently changing based on roles, situations, tasks, interactions, and trials (Keupp et. al, 2006; Pascarella & Terenzini, 2005; Whetten & Godfrey, 2002). Internal and external information are used when forming an identity, and identities are often multifaceted, changing based on group memberships, occupations, relationships, and interests. Several theorists have contributed theoretical and practical support to the current literature on identity development, such as Erikson (1980), Marcia (1980), Chickering and Reisser (1993), and Holland (1976).

Additionally, research conducted by Berzonsky (2003) suggests that one cannot separate the “self” from one’s vocational and occupational knowledge obtained from interactions and experiences in society. In other words, having a sense of vocational identity is a critical part of one’s overall identity. Before discussing two key career development theories that provide
insight into one’s vocational identity formation, the psychological processes related to general adolescent identity formation shall be reviewed.

Erikson’s Stages of Psychosocial Development

More than 40 years ago, Erikson (1968) developed a lifespan stage theory on personality development and also theorized that the focus of psychosocial development during adolescence related to identity formation. Specifically, the fifth stage of his model related to identity achievement versus role confusion. During this stage, a college student of traditional age must transition from childhood to adulthood and learn to define him or herself. Other main challenges or tasks during this stage include selecting an occupation or choosing a profession. As noted in his model, each life stage included a crisis that required resolution for healthy development and positive growth. Although Erikson (1968) developed a stage model examining psychosocial development across the lifespan, other theorists have focused on the psychosocial development of students representing more specifically the traditional college age group.

Marcia and the Four Identity Statuses

Marcia (1980) extended Erikson’s work and also provided a way to operationalize the process of identity development. Similar to Erikson (1980), he acknowledged the psychological tasks of crisis and commitment and also recognized the processes of exploration (examining values, goals, and beliefs with different social roles) and commitment (establishing goals and values) with respect to identity formation. Furthermore, Marcia (1980) developed a theoretical framework to conceptualize and understand a student’s level of exploration and commitment. The four types of identity statuses included achievement, moratorium, foreclosure, and diffusion. Individuals characterized by moratorium experience difficulty making commitments yet demonstrate identity exploration behavior, while individuals characterized as foreclosure
typically have limited exploration and make commitments based on feedback from significant others. On the other hand, avoidance of making commitments or not being concerned about having a lack of direction is a common characteristic of individuals in the diffusion status. Students who experienced an identity crisis and made a commitment to a certain role or value following exploration, thus providing a sense of identity, were considered to have attained the status of identity achievement. The status groups of identity achievement and foreclosure often have high commitment, while individuals in the diffusion or moratorium status groups demonstrate low commitment (Marcia, 1980). However, it should be noted that research consistently shows that no significant differences in identity status by gender are found (Hirschi, 2011; Streitmatter, 1993).

Women and men participating in Greek-letter organizations may have increased opportunities for experiencing “crises” and making commitments to specific decisions. For example, living in a sorority or fraternity house fosters family separation—ultimately facilitating the formation of a distinct identity. Additionally, Greek life members may develop a deeper sense of self by attending chapter meetings and participating in philanthropy events. Alternatively, serving as an officer or on a committee can provide information on career aspirations or personal values and interests. Building on theories of psychosocial development, more recent research has been devoted to the construct of identity among college students of traditional age.

**Seven Vectors of Student Development**

The construction, development, and establishment of identity remain important for the college student population; it is possibly the most important developmental concern experienced during the college years (Chickering & Reisser, 1993). For example, Chickering and Reisser’s
(1993) research on the personal development of college students includes seven core vectors (e.g., independence, emotion management, interpersonal relationships) that need resolution before healthy self-identity can be reached. Vector five (establishing an identity and strong sense of self through life roles) and vector six (developing purpose by forming clear vocational goals) correspond well with other theories that focus on career development and vocational identity formation. Chickering and Reisser (1993) also noted that educational environments and factors related to student communities, faculty relationships, and college friendships further impact student development. Of particular interest for the current study was exploring how Greek-letter organizations and connections with other sorority or fraternity members impact one’s sense of vocational identity. For example, participation in Greek life activities could provide a sense of community and promote self-confidence, ultimately fostering one’s sense of identity (Hood, 1984). Similarly, interactions with other Greek life members may clarify career goals, provide a sense of competence, or assist in developing a sense of a life purpose (Martin, 2000).

Active exploration also plays a fundamental role in identity formation; not only is self-knowledge enhanced, but individuals learn how to solve problems and make life decisions when resolving crises (Grotevant, 1987). As a result, it becomes apparent that the development of one’s vocational identity represents an integral part of one’s overall identity development (Skorikov & Vondracek, 2007; Vondracek, 1992). Similarly, one important life task of college students is identifying majors and potential occupations based on interests, values, and skills. Vocational identities are further shaped by personal interactions, life roles, and social experiences. Sorority and fraternity members have the opportunity to engage in social processes, group activities, and participate in daily discourse which could provide options for co-constructing meaning and establishing a more accurate sense of identity (Young & Collin, 2004).
For the purposes of this study, several career development theories provide additional insight and understanding regarding the vocational identity development of college students. One highly researched and tested theory in the professional literature is Holland’s (1973; 1997) RIASEC person-environment fit theory (Nauta, 2010).

**Career Theories and Identity Development**

As mentioned previously, the role of self and personality development are closely related to vocational identity or “having a clear and stable picture of one’s goals, interests, and talents” (Holland, 1997, p. 1). Students who possess these characteristics are typically able to make career decisions with confidence. For example, critical life tasks and career decisions for college students include selecting majors, choosing occupations, applying for jobs, and completing interviews. Individuals with high vocational identity experience minimal difficulty when making decisions of this type, whereas individuals with low vocational identity may require additional assistance to enhance self and occupational knowledge before a decision can be made with certainty (Reardon & Lenz, 1999). The following section provides a theoretical framework for understanding the fit between personality and work environment, as well as how vocational identity develops and ultimately impacts psychological well-being and overall life satisfaction (Nauta, 2010; Stauser, Lustig, & Ciftci, 2008).

**John Holland’s Theory of Vocational Choice**

Consistent across gender, age, and culture, Holland’s (1985; 1997) RIASEC theory suggests that individuals search for environments that are congruent with their personality types, where they can exercise skills/abilities, and express personal values. Behavior at work and in other situations (e.g., academic settings) is often determined by the congruence of the person and environment fit. Using this theory, one can understand how personality traits and vocational
interests interact during the decision-making process. Holland (1997) constructed a hexagon (see Figure 1) to demonstrate the relationships between six personality types, as well as the relationships between their six corresponding environments (e.g., leisure activities, jobs, etc.). The proposed six personality types included: Realistic (R), Investigative (I), Artistic (A), Social (S), Enterprising (E), and Conventional (C). Within the theoretical framework, most people can be categorized as one of the six personality types, while each environment is also dominated by a particular personality type (e.g., Realistic). Membership in Greek life may provide opportunities for clarifying the above types; for example, positive experiences as the chapter correspondent or secretary may encourage the member to pursue “C” occupational environments (e.g., librarian), while members elected to offices such as president may choose to pursue “E” careers, such as those of a lawyer or entrepreneur. In addition to these hypothesized six personality types, Holland (1997) developed several secondary constructs (e.g., consistency, coherence of aspirations) and assessment measures (e.g., Self-Directed Search) to use when helping individuals make career and educational decisions. After providing a brief description of his secondary constructs, additional attention is directed towards vocational identity due to the relevance of this construct for the current study.

![RIASEC Hexagon: Personality Types and Environmental Models](image)

Figure 1. RIASEC Hexagon: Personality Types and Environmental Models
Secondary Constructs

Holland (1997) developed six secondary constructs that show diagnostic utility and explain vocational behavior when using an individual’s three letter code (e.g., SAE) from the Self-Directed Search (SDS). Consistency is the distance between the first and second letter in a person’s code type, with high consistency suggesting overlap of interests. On the other hand, congruence is the match between two code types, such as a summary code and an aspiration code. High congruence suggests satisfaction, persistence, and an adequate understanding of self and/or occupational knowledge. Coherence of aspirations is the degree to which a person’s listed aspirations are similar. Individuals with high coherence are characterized by crystallization of interests and predictability. Additional constructs are commonness, the frequency with which a code is observed in the population, and differentiation, the level of distinctness in a code type, with higher differentiation representing crystallization of interests. Low differentiation may also be a sign of multi-potentiality. Profile elevation can also be assessed by summing up the total SDS score, with scores above 133 indicating openness to options and scores below 87 suggesting that individuals may not be as open to new opportunities or may experience low self/occupational knowledge. Finally, vocational identity indicates level of stability or clarity in personal goals and values (Holland, Daiger, & Power, 1980). A higher sense of vocational identity can increase personal confidence when making decisions, while low vocational identity is associated with difficulty making decisions (Reardon & Lenz, 1999). The following sections provide a more detailed analysis of vocational identity, such as how it is assessed and information on empirical correlates.

Vocational Identity

Individual identity formation is based on consistency and differentiation among the three-letter summary code (Holland, 1985). Holland (1997) noted that vocational identity can be
particularly important when one desires to predict a person’s behavior. Based on this model, identity development appears to occur as students interact with specific environments to which they are exposed and complete various activities (e.g., participating in philanthropy events hosted by Greek-letter organizations and attending weekly chapter meetings). For example, personal identity formation occurs as these students receive multicultural exposure, engage in reflection, perform self-exploration, and develop core values based on chapter mottos, morals, and principles. Furthermore, vocational identity may increase when individuals can identify strengths/weaknesses, maintain accurate self-knowledge, and recognize which occupations are personally enjoyable (Holland et al., 1980). Practically, this suggests that individuals possessing a clear sense of identity will likely have healthy coping strategies and predictable goals (Holland, 1997).

Holland, Gottfredson, and Power (1980) developed the *My Vocational Situation (MVS)* as an assessment tool that could be used as a guide in career and educational planning. The *Vocational Identity (VI)* Scale from the MVS measures the level of stability and clarity in one’s personal goals and values while also providing information on the type(s) of career assistance needed. Higher scores typically indicate mature career decision-making abilities, minimal psychological concerns, and resiliency to overcome barriers (Holland, 1997). Since its publication, extensive research has been conducted using the VI scale, and findings consistently support the reliability and validity of this measure. For example, Holland et al. (1993) reported that more than 50 studies utilized the MVS, while Strohm (2008) found use of this scale in over 90 studies. The current study will use the VI scale based on its strong empirical findings and solid theoretical framework (Meyer, 2011; Holland et al., 1993).
**Empirical Findings**

A review of the professional literature suggests that vocational identity is related to career decision-making self-efficacy, career readiness, occupational commitment, life satisfaction, and goal attainment (Nauta, 2010; Scott & Ciani, 2008). Using a sample of 356 Turkish undergraduate students, Isik (2010) examined how career-decision self-efficacy can predict career constructs such as self-appraisal, vocational identity, and career commitment among different college age groups. In addition to answering a demographic questionnaire, participants completed the Career Decision-Making Self-Efficacy Scale—Short Form (CDSES—SF) so that ability to engage in self-appraisal, goal selection, planning, and problem-solving could be assessed. Findings indicated that students 21 years of age and older scored significantly higher on self-appraisal, goal selection, and career planning than students 20 and younger. Upper level students also reported greater vocational identity than freshman or sophomore students. Based on this finding, it appears that the older students are typically more confident in making career decisions, show higher levels of self-knowledge, and have established a clearer vocational identity. However, no gender differences were observed. Likewise, Gushue et al., (2006) explored vocational identity using a sample of 72 African American students and demonstrated a strong relationship between vocational identity, general self-efficacy ($r = .61$), and self-efficacy specific to career decision-making ability ($r = .54$).

Santos (2003) conducted a study to investigate the influence of self-esteem and goal instability on the vocational identity levels of adolescents. Participants included 375 Portuguese students completing secondary school requirements, and assessments administered included the Goal Instability Scale (GIS), the Vocational Identity (VI) Scale, and the Rosenberg Self-Esteem Scale (RSES). Results from a hierarchical multiple regression analyses suggested that 29.4% of
the variance in vocational identity scores was explained by goal instability scores. Additionally, all three variables were positively correlated with vocational identity, with goal instability representing the strongest predictor. However, no control group was used for comparison purposes.

Other researchers have found significant relationships between vocational identity and psychological distress, anxiety, adjustment, and overall well-being (Lucas & Berkel, 2005; Strauser et al., 2008). For example, in a sample of 597 college students seeking services from a university counseling center, Lucas and Berkel (2005) found that adjustment difficulties and interpersonal stress strongly correlated with vocational problems. Additionally, a moderate link between anxiety and vocational identity was found. Also, Hinkelman and Luzzo (2007) found that individuals presenting with lower levels of vocational identity often experience higher levels of vocational stress and experience difficulty creating vocational goals. As a result, it is apparent that a strong relationship exists between the variables of vocational identity, career decision-making self-efficacy, and goal instability. Similarly, it supports the rationale for examining vocational behavior, personality variables, and mental health correlates among college students (Strauser et al., 2008). Holland (1994) also noted a limitation of his RIASEC theory—specifically, that additional research should explore how social environments (e.g., Greek-letter community) interact with an individual (e.g., identity formation) and his/her overall personal development.

In summary, self-knowledge and possessing a sense of identity is critical for vocational development. Furthermore, Holland’s (1985; 1997) theoretical framework demonstrates the impact of environments on students’ development and vocational identity formation. Additionally, the formation of one’s identity is fluid and dynamic, with particularly dramatic
change during the ages of 19 to 24. In order to operationalize and measure vocational identity, Holland, Daiger, and Power (1980) constructed the My Vocational Situation (MVS). Previous empirical findings also support the link between having a clear sense of identity and high self-efficacy beliefs and lower levels of goal instability. However, this area needs additional research using samples that are large and diverse, control groups for comparison, and more comprehensive data analysis procedures.

The present study seeks to examine how Greek life membership impacts strength of vocational identity as well as to gain a better understanding of the relationships between vocational identity and other career constructs. Research suggests that self-evaluations (e.g., cognitive component) and the integration of life roles, events, and related environmental experiences are critical components for successful vocational identity development (Gysbers, Heppner, & Johnston, 2003). Social learning and social-cognitive career theories represent additional theoretical frameworks for understanding how identity development may be based on personal experiences, social interactions, and engagement in other exploration activities.

Social-Cognitive Career Theory

According to Bandura’s (1986) social learning theory, self-efficacy and outcome expectations motivate the pursuit of long-term goals and actions while simultaneously enhance the completion of critical life tasks (Lapan, 2004). Furthermore, Bandura (1986) hypothesized a reciprocal relationship between environmental influences, personal characteristics, and overt behavior. The above theoretical framework also seems applicable to understanding career development as individuals, work settings, and social environments are constantly changing. In 1994, based on Bandura’s (1986) work, Lent, Brown, and Hackett (1994) developed the social-cognitive career theory (SCCT) and also connected it to career-related behavior, vocational
choices, and personal explorations (Lapan, 2004). This theory specifically addressed the domain of self-efficacy as it related to career decision making and career contexts. Finally, Bandura (1986) proposed that goal-setting and self-efficacy beliefs influence individual performance, such as in selecting majors or choosing occupations.

Based on the belief that participation in Greek-letter organizations impacts career development by providing experiential learning opportunities, and taking into consideration the roles of self-efficacy, personal goals, outcome expectations, and related barriers, this theory can clarify how personal agency elements (e.g., self-efficacy, personal goals) may influence identity formation within a social context. For example, meeting intended goals or the attainment of personal goals (e.g., becoming president of a chapter) leads to self-confidence and higher self-efficacy levels for future goals. Furthermore, Greek life members often receive a significant amount of social support from other members, and since social persuasion and encouragement from others is one learning experience that influences self-efficacy expectations, these students may have more confidence when making career decisions.

**Self-efficacy**

Included in social learning and social-cognitive career theory is the concept of *self-efficacy*, or the belief in one’s self to organize and execute a plan. It represents a significant motivating force that remains one of the best predictors of vocational behavior (Bandura, 2001). Similarly, the degree of self-efficacy influences the amount of effort and persistence in completing tasks or attaining goals (Bandura, 1986). Performance accomplishments, emotional arousal, social persuasion, and vicarious learning are the four sources of information that can increase levels of self-efficacy (Bandura, 1982). Also, Bandura (1982) identified the following behavioral outcomes as being influenced by one’s self-efficacy beliefs: performance, persistence,
and approach versus avoidance behavior. In other words, higher self-efficacy levels promote improved performance, longer persistence, higher motivation, and drive to approach tasks. Finally, one’s self-efficacy is based on cognitive, behavioral, and emotional components.

The Career Decision-Making Self-Efficacy Scale (CDMSE) (Taylor & Betz, 1983) was developed to assess the level of confidence one has in his/her ability to perform career decision-making tasks associated with making vocational choices. This measure was originally utilized in empirical studies examining Bandura’s self-efficacy theory (1977) but later extended to the context of career indecision and decision-making. The Career Decision Self-Efficacy Scale—Short Form was created, and research suggests that it continues to serve as an adequate measure for assessing social-cognitive career constructs (Lent & Brown, 2006; Paivandy, 2008). Finally, the short form includes five different scales and integrates factors such as personal (e.g., age, race) and environmental influences (e.g., government policies; climate conditions) as well as career interests (e.g., enjoyable activities), choices (e.g., goal selection; planning for the future based on interests), and performance outcomes (e.g., how choices are achieved) (Lent, Brown, & Hackett, 1994).

**Empirical Findings**

Although additional research is needed, previous studies have found a relationship between career self-efficacy beliefs, career decision-making behavior, and identity development. For example, Gati, Krausz, and Osipow (1996) proposed a hierarchal taxonomy for better understanding and explaining career indecision. The three main categories of career difficulties included a lack of readiness, lack of information, and inconsistent information. Specific subcategories ranged from inadequate self or occupational knowledge to low motivation and internal conflicts. Morgan and Ness (2003) extended their model to 155 Canadian first-year
college students, although it mainly focused on the taxonomy subcategories of self-efficacy, identity development, and sex-role identification. Participants completed the Career Decision Difficulties Questionnaire (CDDQ), the Career Decision-Making Self-Efficacy Scale—Short Form (CDMSE—SF), the Bem Sex Role Inventory (BSRI), and the Extended Objective Measure of Ego Identity Status (EOM-EIS). Using the “lack of information about self” subscale from the CDDQ and scores from the EOM-EIS, ANOVA results found that students categorized as “diffusion” had significantly higher scores on the CDDQ subscale, while individuals classified as identity “achievement” had significantly lower scores. This finding suggests that a higher stage of identity development is associated with higher self-efficacy scores.

More recently, research has examined how self-efficacy beliefs facilitate career exploration, motivation, and goal attainment. Research further suggests that individuals presenting with higher levels of career self-efficacy set greater goals and show strong commitment (Bandura, 1997). While utilizing a longitudinal design with undergraduate students, Lent et al., (2008) found that levels of self-efficacy of engineering majors were a precursor for the formation of goals and interests. Similarly, it appears that college students who develop challenging goals and have adequate commitment to attain these goals have higher self-efficacy levels (Bandura, 1991). Finally, Nasta (2007) conducted a study using 259 college students to examine correlations between sources of career decision-making self-efficacy (e.g., past performance accomplishments), career exploration, and personal goals. Nasta (2007) found that the strongest predictor of career decision-making self-efficacy beliefs and confidence in attaining these goals were previous performance accomplishments. For the present study, it has been proposed that participation in a sorority or fraternity may provide opportunities for learning, receiving feedback, and mastering skills (e.g., leadership), thus increasing self-efficacy beliefs.
Likewise, participating in diverse activities and engaging in observational learning can promote activities related to career exploration, ultimately increasing self-efficacy levels. On the other hand, poor performance may result in weakened self-efficacy beliefs. Differences in self-efficacy may also explain why two students with similar abilities do not achieve at the same level. Whether experiences are perceived as successful or unsuccessful, one’s level of future goal setting is also influenced (Bandura 2001).

It should also be noted that scores on career decision-making self-efficacy questionnaires are not significantly influenced by gender among college students (Isik, 2010; Luzzo, 1993; Taylor & Popma, 1990). On the other hand, college seniors do typically score significantly higher on career planning, goal selection, vocational identity, and self-appraisal than freshmen and sophomores (Creed, Patton, & Watson 2002; Isik, 2010; Luzzo, 1993). One explanation could be that upperclassmen have had more time or opportunities to discover values, skills, and personal interests and/or dislikes. This is one rationale for solely focusing on college seniors in the current study. Finally, previous research has found that low career decision-making self-efficacy is related to poor vocational identity development (Blustein, 1989; Gushue, Clarke, Pantzer, & Scanlan, 2006). Conversely, higher career decision-making self-efficacy has been associated with enhanced career planning, greater goal setting, and stronger commitment to goals (Bandura, 1997; Rogers, Creed, & Glendon, 2008). Logically, individuals who are able to direct their goals often have a higher sense of self-efficacy to execute tasks. Since goals influence action, and because goals are incorporated into the framework of social-cognitive career theory, further attention is directed toward the goal-setting literature in the next section.

In summary, the social-cognitive career theory provides information on how perceived self-efficacy beliefs, outcome expectations, and personal goals influence career development,
problem-solving, and decision-making. Researchers typically utilize the Career Decision-Making Self-Efficacy Scale to assess levels of career decision-making self-efficacy. Studies within the current literature suggest that higher self-efficacy beliefs promote more positive vocational development and that individuals with clearer goals and values often express higher career decision-making self-efficacy. Similarly, greater levels of self-efficacy are associated with setting goals and commitment to obtaining personal and vocational goals. Furthermore, Greek life environments could promote one’s sense of self-efficacy due to consistent support, feedback, and exposure to learning activities. Similarly, participation in a sorority or fraternity may enhance self-knowledge or provide a better sense of identity—ultimately increasing career decision-making self-efficacy. While many career variables have been related to self-efficacy beliefs, few studies have examined how motivation influences college adjustment, vocational development, and goal commitment. Finally, no research has examined these career variables using a sample of Greek life students.

Goal Instability

Successful transition to college, positive academic adjustment, and adaptability in the workplace are based on multiple predictors. Using a multidimensional framework, Russell and Petrie (1992) included the following three major predictor variables to explain academic success: academic (e.g., aptitudes, abilities, and skills), social/environmental (e.g., social support, work involvement, and family), and personality (e.g., self-esteem, locus of control, motivation, and goal achievement). Goal instability, or the lack of mature values and life goals, is likewise associated with more difficult college adjustment (Dennis, Phinney, & Chauteco, 2005). On the other hand, students exhibiting lower goal instability attain higher grade point averages and report higher institutional satisfaction than their counterparts (Scott & Robbins, 1985). Similarly,
Milam and Berger (1997) found that goal-oriented students who simultaneously felt connected to their academic institutions persisted in the face of personal or academic setbacks. Based on the relationship between college adjustment and personality variables (e.g., goal setting and motivation), and because active members in Greek-letter organizations have increased opportunities to demonstrate goal commitment (e.g., raising money for philanthropy events), the present study chose to examine the variable of goal instability more closely. The value of setting goals also has significance for motivating career planning and overall vocational behavior (Brickman & Miller, 2001; Rogers, Creed, & Glendon, 2008). Goal instability is one construct that may be used to measure motivation (Kohut, 1984).

Theories of motivation, goal-setting theory, and researchers in the social-cognitive career field have all proposed the importance of goals for maintaining and promoting individuals’ well-being (Oishi, 2000). Furthermore, it is believed that actions directed at achieving goals are performed with a sense of purpose and that goal attainment provides information on an individual’s motivation to achieve (Bandura, 1991; Deci & Ryan, 1995; Kohut, 1997). Similarly, accomplishing goals can provide self-knowledge and reinforcement to pursue proximal and distal goals (Brickman & Miller, 2001). Knowledge obtained from being an active member in a sorority or fraternity can further support goal-setting behavior and the overall development of career goals.

Based on Kohut’s (1984) personality model for how individuals initiate behaviors and set direction, the Goal Instability Scale (GIS; Robbins & Patton, 1985) was created to assess absence of direction, achievement motivation, and goal orientation. Additionally, research using this scale has found significant relationships between goal instability and personal adjustment indexes (Smith & Robbins, 1988). For example, individuals with lower GIS scores reported
lower satisfaction, competence, confidence, and self-efficacy beliefs (Lese & Robbins, 1994; Multon, Heppner, & Lapan, 1995; Robbins & Patton, 1995). Similarly, items assessing “confusion about the self” are endorsed more frequently by individuals with higher goal instability (Casillas et al., 2006). On the other hand, individuals who exhibit less goal instability and show orienting goals experience greater career satisfaction, report fewer dysfunctional career thoughts, and more engagement (e.g., completing extra credit assignments) in career courses than students having greater goal instability (Bertoch, 2010).

Over the past two decades, several researchers have conducted studies using the Goal Instability Scale (GIS) to examine topics from career decision-making (Multon, Heppner, & Lapan, 1995) and computerized counseling programs (Kivlinghan, Johnsto, Hogan, & Mauer, 1994) to topics related to college adjustment (Robbins, Lese, & Herrick, 1993) and perceived level of social support (Robbins, Payne, & Chartrand, 1990). Findings from Kivlinghan et al. (1994) showed that computer-based counseling systems were less effective for students expressing higher goal instability. Goal instability has also been studied in relation to career exploration behavior and levels of career decision-making self-efficacy.

Blustein (1989) conducted a study using 106 college students to understand what factors led these individuals to engage in career exploration behavior. All participants completed the Goal Instability Scale (GIS), Career Decision-Making Self-Efficacy Scale (CDMSE), and Self-Exploratory Activity Questionnaire (SEAQ). Results from canonical analysis suggested that self-efficacy beliefs about making career decisions are related to goal directedness and self-exploration within particular environments. Similarly, self-efficacy beliefs relate to goal persistence despite obstacles; in a sample of science and engineering undergraduate students, Lent, Brown, and Larkin (1984) found that individuals reporting higher career decision-making
self-efficacy showed greater goal persistence and overall better academic performance than students experiencing lower beliefs of self-efficacy. Finally, previous research suggests that goal instability is related to career aspirations and vocational identity. In order to assess the relationship between goal instability, vocational identity, and career certainty among a sample of 375 Portuguese students enrolled in the 10th, 11th, and 12th grades, Santos, Casillas, and Robbins (2004) created the Goal Instability Scale—Portuguese version (GIS—P). Results indicated a strong positive correlation between goal instability and vocational identity ($r = .79$) and a moderate positive correlation of goal instability with self-efficacy beliefs ($r = .62$), career certainty ($r = .62$) and social acceptance ($r = .62$).

Most recently, career choice dissatisfaction and elevated career tension were correlated with higher levels of goal instability (Bertoch, 2010). On the other hand, students experiencing a greater sense of social support and belongingness had lower levels of goal instability (Robbins et al., 1993). Overall, these findings suggest that providing social support during counseling and having other social resources (e.g., affiliation with Greek-letter organizations) may facilitate improved adjustment and lower levels of goal instability in the future (Bertoch, 2010). Additionally, results support the influence of internal factors (e.g., motivation) on self-exploration with career environments and social settings.

In terms of gender differences, the literature is mixed; for example, gender differences on the Goal Instability Scale (GIS) were non-significant in Santos’ (2003) research on the relationships between goal instability, self-esteem, and vocational identity among high school students. Furthermore, age was the only significant predictor for vocational identity and goal instability. On the other hand, Ludtke, Trautwein, and Husemann (2009) found that women rated life goals associated with health, personal growth, and relationships as more important while
men rated life goals related to wealth and fame as more important. Similarly, Bertoch (2010) found that females were more likely to engage in course performance variables related to receiving extra credit and earning higher grades when compared to men. As a result, it appears that women may have lower levels of goal instability and therefore experience more motivation to execute career-related behaviors and higher energy to engage in goal-planning.

Before discussing the history of Greek-letter organizations and how they could contribute to the college students’ career development, key findings are reviewed and a summary shall be provided.

**Summary**

Based on this literature review, it is evident that career variables such as vocational identity and personality variables such as goal instability can jointly impact other outcome variables (Savickas, Briddick, & Watkins, 2002). Holland’s (1985; 1997) model on person-environment fit and vocational identity formation, Lent et al.’s (1994) social-cognitive career theory framework, including self-efficacy, and Robbins and Patton’s (1985) research on goal instability provide a relevant conceptual background for understanding the career development of college students. Similarly, this theoretical background provides information on how students search for environments, engage in activities and social roles, feel a sense of identity coherence, and set goals—especially students participating in Greek life.

Lack of information about self, such as not being able to identify interests or personality traits, and a lack of confidence in one’s ability to successfully complete tasks or activities, makes it more difficult to engage in the career planning process and execute career decisions (Gati, Krausz, & Osipow, 1996). Furthermore, research suggests that a lower level of career decision-making self-efficacy is predictive of reduced identity development. For example, Morgan and Ness (2003) found that students with a higher stage of identity development (e.g., identity
achieved) reported higher self-efficacy beliefs than students in the stages of diffusion or moratorium. Similarly, Gushue et al. (2006) demonstrated a relationship between vocational identity and career decision self-efficacy. Confidence in one’s abilities is also associated with increased effort, organization, and action.

Self-efficacy beliefs have further been linked to behaviors of persistence, motivation, performance, and goal-setting (Lent, 2005). Rather than being a global trait, self-efficacy is associated with specific domains, such as career decision-making self-efficacy. As noted by Crites (1976), an individual’s competencies in completing career tasks typically relate to the areas of problem solving, gathering occupational information, making future plans, and setting goals. Compared to their counterparts, students with higher career decision-making self-efficacy were better in goal setting and career planning (Rogers, Creed, & Glendon, 2008). On the other hand, low career decision-making self-efficacy may lead to avoidance or procrastination behavior as well as decreased commitment to executing a goal (Betz & Taylor, 2001). These beliefs are based on cumulative experiences (e.g., sorority or fraternity performance accomplishments) and vicarious learning (e.g., observing other active Greek life members successfully perform tasks), and can create the expectation of personally performing a task successfully or unsuccessfully.

The development of goals has further been associated with overall well-being (Oishi, 2000). Additionally, individuals who lack a sense of self often have difficulty setting ideals and goals (Lapan & Patton, 1986). A lack of goal direction or high goal instability often reflects unhealthy self-idealization, lower levels of career decision-making self-efficacy, reduced competence, minimal goal commitment, and difficulties in adjusting to college (Lese & Robbins, 1994; Multon, Heppner, & Lapan, 1995). Furthermore, high goal instability is associated with
depression, anxiety, and lower levels of career decision-making self-efficacy beliefs. When the development of personal goals and values are not achieved, which may be seen in individuals lacking a sense of self, one may experience greater difficulties in forming a vocational identity. College seniors in transition to the “real world” may experience more stress and challenges if the self and vocational identity have not been well developed (Santos, 2003).

While the constructs of vocational identity and career decision-making self-efficacy have elicited significant research attention, much less focus has been directed towards the construct of goal instability and its impact on career decision-making and overall career development. Furthermore, little information exists on vocational identity, career decision-making self-efficacy, and goal instability levels for different student sub-populations or campus groups (e.g., active members in Greek life). The next section describes the function of Greek-letter organizations for enhancing students’ career development and vocational identity formation. After providing a brief historical background and discussing the mission, values, and main goals of these national organizations, examples of previous outcomes of participation in Greek life are addressed. Finally, attention is directed towards the impact of Greek life membership on vocational identity, career decision-making self-efficacy, and goal instability levels.

**Greek Life**

Over the past two decades, the value of Greek-letter organizations has been questioned, and significant controversy remains concerning the purposes and benefits of participating in sororities or fraternities (Turk, 2004). In addition to poor perceptions of Greek life from faculty members and college administrators, the media is filled with examples of the possible negative effects of participation in these organizations (e.g., hazing, alcohol poisoning, eating disorder development) (DeSantis, 2007). Likewise, television shows such as *Greek 101* and movies such
as *Animal House* imply that members fail to complete academic responsibilities while simultaneously engaging in destructive behavior. On the other hand, research consistently shows that members of Greek-letter organizations have higher retention and college satisfaction rates than non-Greek students (DeBard et al., 2006; Reese, 1998). Additionally, sororities and fraternities frequently engage in service and philanthropy events. Finally, Reese (1998) found that Greek alumni are more likely to make monetary donations following graduation than non-Greek students. Before discussing specific outcomes of Greek affiliation and membership, a brief review of the history, core values, and typical characteristics of students’ participation in Greek-letter organizations are provided.

**Historical Roots and Governance**

For centuries, collegiate chapters and national governing bodies have existed across the United States. The first Greek-letter organization (Phi Beta Kappa) was founded on the college campus of William and Mary in Williamsburg, Virginia in 1776 (Boschini & Thompson, 1998). A half century after its initial inception, and after creating five additional chapters, Phi Beta Kappa became solely an honors fraternity (Capps, 1978). Since that time, organizations have separated into two distinct groups: honor or literary societies and social or Greek fraternities (De Los Reyes & Rich, 2003; Rudolph, 1990).

Individuals participating in the earliest organizations encountered traditions and characteristics similar to those observed today. For example, the original Phi Beta Kappa chapter had membership badges, a motto, rituals, and oaths of fidelity. Some argue that these symbols and rituals provided students with a way to represent and identify themselves (Sanua, 1998). Furthermore, students had an opportunity to develop leadership qualities and play active roles in the governance of their universities or colleges. As interest and desire increased among students
to participate in these social fraternities, more chapters were founded. For example, Kappa Alpha Society, the first officially recognized men’s fraternity, was created in New York and by the late 1700s chapters were founded in North Carolina, Louisiana, Virginia, and Alabama. Following the Civil War, there was significant expansion of chapters in new institutions as well as development of new fraternities (Baird, 1977). By the beginning of the World War I, there were more than 70 national Greek-letter organizations for both men and women. The establishment of the Morrill Act in 1862 further allowed women to pursue higher education in greater numbers, and as with the men’s, the number of women’s social fraternities skyrocketed (Solomon, 1985).

Phi Beta Phi, the first official fraternity for women, was established in 1867 in Monmouth, Illinois. By 1874, “women’s fraternities” adopted the word “sorority” to describe their membership. Almost 25 years later, national governing bodies were established to provide direction, social support, and educational enrichment. For example, the National Panhellenic Conference (NPC) was developed in 1902 for women’s sororities and currently consists of 26 national and international organizations. Similarly, the National Interfraternity Conference (NIC) was created in 1909 to support the national fraternity movement of men. Presently, this governing body includes 64 men’s fraternities.

African American groups were also quick to pursue these social opportunities, as evidenced by the Black fraternal movement initiation in the early 1900s. Alpha Phi Alpha Fraternity, Inc., at Cornell University was established as the first fraternity for African American men in 1906, while Alpha Kappa Alpha, Inc., served as the founding sorority for African American women at Howard University (Wesley, 1961). Most recently, the Hispanic population attending institutions of higher education has increased, and so has the need for community and sense of belonging. As a result, Latino sororities and fraternities developed across college
campuses to help students identify historical roots and meet personal needs. Specifically, Lambda Theta Phi Fraternidad Latina, Inc., and Lambda Theta Alpha Latin Sorority, Inc., was formed in 1975 for Latino men and women, respectively. Finally, the first multicultural sorority (Mu Sigma Upsilon) was founded in 1981 to better serve the needs of students from Asian backgrounds. While no governing body currently exists for Asian fraternities and sororities, the National Association of Latino Fraternal Organizations, Inc., (NALFO) was founded in 1998 for Latino members and the National Panhellenic Council, Inc., (NPHC) was created to serve African American sororities.

Approximately 123 national and international organizations are currently represented by NPC, NIC, NALFO, and NPHC. There are more than 5,500 male fraternity chapters, and more than 80,000 women were initiated into chapters during 2006 (Butler, 1999; NPC, 2009). Additionally, there are 2,700 nationally active undergraduate chapters, and fraternal bonds and sorority relationships have resulted in more than 10 million alumni nationwide (Butler, 1999). Given these high numbers, it’s important to examine the demographics of students participating in Greek-letter organizations, the purpose of such organizations, and how membership contributes to or detracts from student development—especially since these organizations are struggling to maintain their existence on college campuses and because it is important to better understand how institutions can work together to promote academic achievement and overall well-being (Astin, Oseguera, Saz, & Korn, 2002).

**Demographics and Characteristics**

Research conducted by Pryor, Hurtado, Saenz, Lindholm, Korn, and Mahoney (2005) indicated that 10.4% of freshman expressed interest in joining a fraternity or sorority and approximately 135,000 freshmen attending four-year colleges or universities participated in the
recruitment process. Furthermore, 12.5% of females indicated a desire to join a sorority, while
7.8% of men expressed interest in joining a fraternity. Similarly, 33.5% of freshman with an
African American background acknowledged that they hoped to join a sorority or fraternity
before graduating (Sax, Lindholm, Astin, Kor, & Mahoney, 2001). Since 1910, 40 of the 47 U.S.
Supreme Court Justices have pledged to a sorority or fraternity while 63% of the members
elected to the cabinets of U.S. presidents have participated in Greek-letter organizations.
Likewise, 85% of executives listed in the Fortune 500 are Greek life alumni, and with the
exception of two presidents and two vice-presidents, every single member in office since the first
social fraternity was founded in 1776 joined a fraternity/sorority (Cornell, 2012). Other career
paths chosen by Greek alumni include music (e.g., Jimmy Buffet, Amy Grant), athletics (e.g.,
Lance Armstrong, Michael Jordan), and journalism (e.g., Katie Couric). It is also important to
note that the nature of Greek life membership is unique, often providing opportunities and
connections that differ from other membership societies or work organizations. Individuals
voluntarily join, pay membership dues, and have housing/meal plan options.

Mission, Values, and Culture

At the cornerstone of all sorority and fraternity creeds, mottos, and mission statements
are values of friendship, community, respect, justice, service honesty, integrity, responsibility,
and academic excellence (Early, 1998). During the North American Interfraternity Conference
(2001) and National Panhellenic Conference (2001), speakers made reference to noble behavior,
service responsibility, intellectual development, and compassion towards other human beings.
Greek-letter organizations further strive to enrich the quality of undergraduate life, promote
professional development, and encourage academic scholarship among their collegiate members
as well as alumni by providing leadership opportunities and financial assistance. Similarly,
ceremonies hosted by student affairs personnel present awards to Greek life students showing intellectual growth, civic engagement, and leadership. Awards and certificates are also given to students upholding positive values (e.g., high GPAs) and demonstrating a sense of brotherhood or sisterhood (Eckel & Kezar, 2003). Assessment and consideration for such awards is based on educating members about the purpose of their respective chapters, developing academic goals, and maintaining an average chapter GPA. Further criteria include providing resources and programs to assist members in living healthy lifestyles and evidence of completing hands-on service activities for other groups or populations in need (e.g., homeless or physically ill). How congruent is the behavior of Greek life members with these espoused values? Similarly, does research support or contradict the influence of Greek life membership on specific student outcomes (e.g., graduation rates, career development)? Before discussing the literature with respect to specific outcomes, the next section focuses on Greek-letter organizations and how membership may lead to internalization of specific values and beliefs.

**Personal and Organizational Identity**

Ashforth and Mael (1989) suggested that members of organizations (e.g., sororities or fraternities) form connections and relationships, often leading to internalization and identification with ideals and goals of particular organizations. Similarly, Cheney (1983) found that identification with an organization influences behavior related to motivation, job satisfaction, and length of service. Most recently, Kuhn and Nelson (2002) surveyed a group of 99 employees at a technology company using multiple methods. Results supported the tendency and desire for people to strongly identify with organizational structures. Furthermore, respondents reported the need to positively present their own identities in terms of the values, beliefs, and goals of the larger organization. Overall, these studies suggest that organizational
identification can play a key role if/when members begin to internalize or engage in the values of their respective organizations.

Current Greek-letter organization members, as well as Greek life alumni, may experience similar internalization processes with their respective Greek-letter organizations. Whether current members are actively leading and serving or alumni who remain involved in national and international offices following graduation, it can be reasonably inferred that a sense of self and identity is being further developed. As noted above, the missions and mottos of Greek-letter organizations center on themes related to friendship, leadership, service, academics, and overall positive development. Based on these identified values and the influence of organizational identity on behavior, it is important to consider how college student outcomes are impacted by membership and whether personal identification with a sorority or fraternity promotes or detracts from overall student development. The next section briefly summarizes key findings related to Greek life student outcomes on academic performance, alcohol use, sexual practices, and overall psychosocial development. It should also be noted that research referencing “members” includes both fraternities and sororities, but when gender-specific, the appropriate term is utilized.

Greek Membership, Student Outcomes, and Development

Based on the values and ideals proposed by Greek-letter organizations, one might expect members to report higher educational gains and experience higher levels of moral and social development. Similarly, active participation in Greek life events and service as chapter officers provide significant opportunities for leadership roles. In order to examine the impact of membership on variables related to career development, it is important to review two approaches of research. First, prior research on actual college student outcomes (e.g., academic performance)
is addressed, followed by a discussion on how engagement in Greek-letter organizations could serve as an effective educational practice to enhance student development.

**Academic Performance**

The impact of Greek life membership on classroom performance and academic achievement has produced mixed results (DeBard, Lake, & Binder, 2006). For example, Whipple (1998) found that Greek life membership during the first year of college negatively impacts cognitive development, and DeBard et al., (2006) observed that students affiliated with Greek-letter organizations received lower scores on college outcome measures and had lower cumulative grade point averages than their non-Greek counterparts. A hypothesis proposed by Pascarella et al. (1996) suggested that membership in sororities and fraternities may decrease the amount of available study time. Other research (DeBard et al., 2006) indicated that students who joined Greek-letter organizations during their second semester of college over-performed. Similarly, a longitudinal study implemented by Pascarella, Flowers, and Whitt (2001) suggested that negative outcomes on academic performance and cognitive development primarily occur during the first semester of pledging to a sorority of fraternity. Similarly, the negative effects and consequences of membership are minimized over time, and a positive effect actually develops for women affiliated with Greek-letter organizations by the time of graduation. Additionally, a longitudinal study conducted by Winston and Saunders (1987) showed that Greek life students endorsed higher levels of academic effort than non-Greek participating seniors. Research also shows that sorority and fraternity members are more likely to stay in school and graduate than non-Greeks (Reese, 1998; Winston & Saunders, 1987). For example, the graduation rate in 2010 at Georgia Tech for students affiliated with Greek-letter organizations was 86%, while only 73% for non-Greek graduates.
Adding to the complexity are gender and ethnic differences. Greek women tend to achieve higher academic grade point averages than their male counterparts, while non-Greek women are out-performed by non-Greek men (DeBard et al., 2006). Studies have also shown that the members of the National Panhellenic Council, Incorporated (NPHC, Inc.) organizations obtained higher college grade point averages than their Black non-Greek counterparts (Sutton & Kimbrough, 2001). Finally, different measurement methods could be contributing to the inconsistent findings; self-report measures indicate higher levels of cognitive development among Greek students, while objective tests of academic performance and student learning suggest lower levels of cognitive development (Pike, 2000). More research is needed in this area to better understand the impact of Greek life affiliation and participation on academic performance.

**Alcohol Use**

One of the most consistent findings cited in the Greek life literature relates to alcohol consumption by women and men participating in sororities and fraternities. Compared to non-Greek students, drinking higher quantities of alcohol and at higher frequencies appears to be more acceptable among sorority women and fraternity men (Eberhardt, Rice, & Smith, 2003). Similarly, Danielson, Taylor, and Hartford (2001) noted that the overall subculture of Greek life, the opportunity for social events, and living in Greek houses fostered drinking behavior and resulted in more negative consequences following alcohol consumption than for their non-Greek peers. Additional support for the relationship between membership in Greek-letter organizations and drinking behavior comes from studies conducted by Alva (1998) and Haworth-Hoeppner et al., (1999); in these studies, only 19.3% of Greek members reported abstaining for alcohol during a 30-day period, while 43.6% of non-Greek students reported abstinence. Similarly,
approximately 20% of Greek life students reported being “heavy” drinkers in comparison to 10% of their non-Greek counterparts.

In terms of gender differences, men in fraternities are more likely to consume alcohol than women. Similarly, they tend to experience more harmful effects (e.g., alcohol poisoning, long-term health problems, or even death) and negative consequences (e.g., receiving a DUI) than women in sororities (Eberhardt, et al., 2003). However, additional research is needed to determine if the increased consumption is based on a consequence of joining a Greek-letter organization or if these students tended to drink more during high school (Lo & Globetti, 1995). In other words, it should be considered whether students who engage in frequent and excessive drinking in high school are more likely to join a sorority or fraternity in college. Another topic frequently investigated in the Greek literature concerns unsafe sexual practices. This will be addressed in the next section.

**Risky Sexual Behavior**

Crush parties, social formals, and mountain/beach weekends provide opportunities for members of Greek-letter organizations to engage in dangerous sexual practices. While these students typically encounter more situations and events that test intimate boundaries, recent research suggests that the “stereotype” of unsafe sexual engagement may be exaggerated (Lynch, Mowrey, Nesbitt, & O’Neill, 2004). Furthermore, Lynch et al. (2004) found that of 7,000 respondents, Greek life members implemented safer sex practices than their non-Greek peers. For example, 82% of sorority women and fraternity men reported always using a condom or completely abstaining from sexual intercourse, while only 63% of students’ independent of Greek-letter organizations reported abstaining from sex or always using condom protection. However, when compared to non-Greek members, Greek life students reported increased sexual
activity when under the influence of alcohol and acknowledged a higher risk for HIV infection (Scott-Sheldon, Carey, & Carey, 2008).

One beneficial requirement of Greek-letter membership is attending risk management meetings and adhering to related policies (e.g., opposite sex students must leave fraternity/sorority houses by midnight). Exposure to and active involvement in such educational programs offers the potential to enhance awareness of the consequences of engaging in risky sexual practices. Finally, gender differences regarding unintended sexual practices are minimal to non-existent, but present studies have mainly relied on self-reported responses (Mathias & Turrentine, 2003). These negative findings, disturbing effects, and adverse perceptions of sororities and fraternities raise questions concerning the benefits of pledging to Greek-letter organizations and why some students continue to seek membership in such groups.

**Psychosocial Development**

Based on the continued popularity of sororities and fraternities across the United States, it is evident that there are some benefits to having Greek-letter organizations on-campus and allowing college students to join (Pike, 2000). The peer group is one of the strongest factors in fostering versus inhibiting affective and cognitive growth (Astin & Vogelgesang, 2006; Astin, 1996). Student organizations, such as on-campus chapters, provide ample opportunities for peer interaction. Similarly, involvement in clubs and organizations can positively impact several areas of psychosocial development. Research conducted by Foubert and Granger (2006) found that students in organizations receive higher scores in the domains of career planning, educational involvement, cultural participation, and having a sense of purpose. In addition to opportunities for volunteering, service, and leadership, sororities and fraternities provide members with
experiences that can facilitate the growth of interpersonal skills, teamwork, persistence, determination, and confidence (Astin, 1993a; Pascarella & Terenzini, 2005; Pike, 2000).

Abrahamson (1987) examined the influence of living in a sorority versus living in a residence hall environment and found that Greek life involvement was positively correlated with increased campus involvement and participation in other student organizations. A decade later, a study conducted at the University of Missouri using 1,000 seniors found that Greek life students reported higher levels of social and academic involvement than their non-Greek counterparts (Student Life Studies, 1997). Higher satisfaction rates, lower withdrawal rates, and a sense of belonging are also observed more frequently in students affiliated with sororities and fraternities than in non-Greek students (DeBard et al., 2006). These findings support Chickering and Reisser’s (1993) student development theory that the establishment of an identity and developing a sense of purpose are related to student interactions and being involved in extracurricular activities. It was further found that sorority women (84%) and fraternity men (83%) had higher retention rates than their non-Greek counterparts (74% and 71%, respectively). In 2010, Georgia Tech noted that the retention rate of Greek freshman was higher (95%) than the non-Greek freshman retention rate (92%). On the other hand, research found that Greek members need to be cautious not to focus so exclusively on interpersonal interaction and engagement in social activities that they fail to complete academic coursework, have insufficient time to study for tests, and neglect to engage in other co-curricular activities (Pike & Askew, 1990). Most recently, the impact of Greek life participation on the development of career-related skills has been examined. Specifically, Pascarella and Terenzini (2005) found that membership in a Greek-letter organization had a positive effect on skills related to civic engagement and career development.
Opportunities for Career Development

Individuals who accept bid invitations to join specific chapters have the choice to make commitments to these respective national organizations for the rest of their lives. In addition to the possibility of building friendships for a lifetime, Greek-letter organizations provide opportunities for leadership, scholarship, service, and campus involvement. For example, most fraternities and sororities have study halls, mentors, and academic skill workshops for promoting educational excellence (Kelley, 2008). Leadership skills can be obtained from serving on executive boards, acting as chairpersons for committees, or attending leadership conferences/retreats. In order for a college chapter to function and thrive, individual members must set goals and assume roles such as president, secretary, financial manager, public relations spokesperson, or social events planner. Likewise, each Greek-letter organization has a philanthropy that includes service projects and volunteer experiences. Another benefit of joining a sorority or fraternity relates to networking, living with peers, and interacting with a diverse group of students from different cultures, religions, and experiences (Bureau, 2010). It is also common for college career centers to give presentations to individual chapters on topics such as résumé writing and searching for internships—information that some college students never hear. Finally, membership can help a college student clarify and rediscover his/her sense of self while simultaneously fostering career or vocational competence.

Sororities and fraternities can also serve as catalysts for learning new skills and obtaining self-knowledge. For example, members can serve on committees and volunteer to help with other officers to learn more about particular interests, skills, and values. As Kuh (1995) noted, involvement in leadership activities and other membership roles can often facilitate career preparation. For instance, a student considering a degree in economics or finance may choose to
help the vice president of finance with his/her duties. Likewise, an individual interested in wedding or event planning may seek the position of social chair or philanthropy co-chair. These experiences can help members identify strengths and weaknesses while concurrently increasing confidence to engage in similar career activities. In addition to enhancing the experience of learning more about the self, Greek-letter affiliation provides opportunities and experiences to learn about the world-of-work.

Whether by participating in philanthropy events and learning about other national organizations (e.g., St. Jude Children’s Hospital) or scheduling meetings with alumni, students can learn about specific occupations and job openings. Alumni can assist with mock interviews, provide feedback on dress and business etiquette, and discuss interviewing tips. Similarly, alumni or friends of alumni may have internship and job openings to provide interested members (Kelley, 2008). Furthermore, it is common for Greek-letter organizations to post virtual seminars on various topics (e.g., how to deliver feedback effectively) that could benefit members and create tools that provide career or workplace advice for millennial students (e.g., JB Training Solutions). Finally, members often develop transferrable skills that are useful in workplace settings, such as communication, organization, conflict resolution, and time management.

To summarize, career theories suggest that individuals develop career interests and make vocational choices through gathering self and occupational knowledge. Additionally, self-efficacy beliefs and related outcome expectations may influence specific interests. Thus, personal goals, career decisions, and performance attainments are impacted. Additionally, contextual factors (e.g., Greek life environment) can affect specific goals or career actions. Participating in a sorority or fraternity may serve to increase identity exploration while also providing feedback on strengths and skills (Bureau, Ryan, Ahren, Shoup, & Torres, 2011). In
addition to research found in the college outcomes literature, the student engagement literature must also be examined to understand the full impact of Greek membership on student development. After providing a theoretical framework for understanding student engagement in higher education settings and defining its meaning, the next section describes research examining student engagement and outcomes specific to Greek members.

**Student Engagement**

**Definition**

Although the current literature does not provide a cohesive definition, most educators and researchers agree that engagement is multidimensional and includes the following two key components: 1) amount of effort and time students’ extend towards “educationally purposeful activities” available at the institution, and 2) the amount of encouragement among the institution for encouraging participation in these activities (Kuh et al., 2006). Additionally, student engagement includes behavioral (e.g., attendance and involvement), cognitive (e.g., critical thinking and problem-solving), and emotional components (e.g., enjoyment, sense of belonging) (Fredricks, Blumenfeld, & Paris, 2004). In the same manner, research suggests that there are critical educational practices that foster higher levels of student engagement (see Figure 2). For example, when examining effective educational practices, Chickering and Gamson (1987) identified seven main categories that impacted student learning and the overall quality of one’s college experiences. Categories related to student cooperation, faculty-student interaction, availability of prompt feedback, and engagement in active and diverse learning opportunities have direct relevance for the current study.
Academic environments that promote these forms of educational practices are more likely to have students who persist in, are satisfied with, and graduate from college (Hu & Kuh, 2001; Kuh et al., 2006). Additionally, research suggests that purposeful activities related to time spent interacting with peers and the utilization of institutional services represent the strongest predictors for ensuring positive student outcomes (Kuh et al., 2006). Astin (1993b) further suggested that peer interaction served as the strongest predictor of students’ personal and academic development (Astin & Vogelgesang, 2006). Based on this assertion, it seems that membership in Greek-letter organizations could promote higher levels of college student engagement. After providing a theoretical lens and discussing models of student engagement, specific Greek membership outcomes can be addressed.
Student Engagement Theories

Two college impact models are frequently used in the higher education literature to explain undergraduate learning and personal development. One is Astin’s (1993) Input-Environmental-Output (I-E-O) model and the other is Pascarella’s (1985) causal model. Astin’s I-E-O model focuses on interactions and environment, which encompasses student behavior and perceptions as well as resources available to institutions. Pascarella’s causal model classifies background characteristics as the inputs and instructional characteristics of size, affluence, and student-faculty ratios. A study by Kuh (2001) used a conceptual approach to separate the environmental components of the I-E-O model into two sets of variables to make it more consistent with Pascarella’s causal model. The variables in the model represent quality of effort and environmental influences to allow for better understanding of how learning is influenced by student actions, institution resources, and student perceptions.

Figure 3. The Learning Productivity Model
Figure 3 illustrates Kuh’s learning productivity model which suggests that institutions have the potential to affect student learning by designing policies to engage students in educational activities, increase learning efficiency by increasing student effort, and increase student attendance. This conceptual model illustrates the relationships among general institutional characteristics, structural diversity (e.g., number of students enrolled in an institution with ethnic variety), and campus environment. A student’s perception of the campus environment represents an essential element in this model. Students who believe that their institutions are committed to their success report that the social and working relationships among different groups on campus are more positive than students who do not feel this assurance. Similarly, having organizations on-campus, such as sororities and fraternities, can facilitate engagement and foster positive gains.

The College Student Experience Questionnaire (CSE-Q) was used to test Pascarella’s hypotheses, as well as to identify seven dependent measures: sum of effort, sum of gain, and five gain factors (intellectual skills, general education, personal/social development, science, and vocational preparation). The learning productivity model suggests that student gains are a product of a student’s total effort in college activities. Campus environments that emphasize scholarly activities positively affect general education, whereas colleges that promote personal relations also have a positive effect on the sum of efforts (Hu & Kuh, 2003). Another consistent finding that emerged was that engagement in purposeful activities remains an important outcome of student learning. Student affairs personnel can play a major role in creating the campus environment and for helping students engage in educational activities at all possible levels. High quality relations (e.g., other Greek life members) can significantly impact the amount of effort a student exerts towards a task (Hu & Kuh, 2003). Finally, learning efficiency is enhanced when
service programs and on-campus organizations are consistent with the missions of the institutions. As research continues to support the need for engagement in educational settings, other researchers have focused on motivation for student engagement.

Maslow (1954) proposed a hierarchical theory of human needs, indicating that individuals are often motivated by unsatisfied needs. Based on his theory and pyramid (Figure 4), students are first motivated to fill needs of deficiency. Until basic or lower order needs (e.g., safety, love) are satisfied, individuals will be unable to reach self-actualization, which is related to participation and higher levels of learning (Prescott & Simpson, 2004). In other words, students must achieve a sense of belonging and feel esteemed by their peer groups before having adequate motivation to learn (Elliott, Kratochwill, Littlefield, Cook, & Travers, 2000).

Therefore, college students who identify with school and feel a sense of belonging (e.g., Greek life membership) may be more motivated to learn and succeed in school. Similarly, participation in Greek life likely fosters esteem (e.g., attention, accomplishment, recognition), social (e.g., friendship, acceptance), safety (e.g., living in a safe area), and physiological (e.g., food) needs.
Measuring Engagement

One of the most widely recognized assessments for measuring student engagement is the National Survey of Student Engagement (NSSE), which draws on the theoretical perspectives of Astin (1993) and Pascarella (2001) and is conducted annually among 1,500 private and public higher education institutions across the United States and Canada (NSSE 2011 Overview, 2011). The main goal of this questionnaire is to examine how participation by freshman and senior students influences learning and overall personal development. The five benchmarks or domains examined are 1) active and collaborative learning, 2) participation in challenging academic activities, 3) interaction with peers/faculty, 4) involvement in enriching educational experiences, and 5) feeling supported by university learning and social communities (Coates, 2007). Specific questions within these domains assess how often students actively participate in their learning, as research shows that higher activity is associated with increased learning and overall student success.

In 2011, the Florida State University administered the NSSE to a sample of 3,271 respondents that included 1,102 freshman and 2,169 seniors (NSSE 2011 Overview, 2011). Results found that these students had significantly higher benchmark scores on the peer/faculty interaction, enriching educational experiences, and supportive campus environment domains than other students in the national norm group. These findings suggest that students at Florida State University are engaged and that opportunities exist for feeling supported in order to thrive academically, personally, and socially (Gonyea & Kuh, 2011). Handelsman, Briggs, Sullivan, and Towler (2005) developed a college student engagement questionnaire based on the following four dimensions: participation and interaction engagement, emotional engagement, skills engagement, and performance engagement.
“Being Greek” and participating in fraternities and sororities provides one college activity that can increase involvement and interaction among faculty and peers. For example, each chapter has (or should have) a faculty adviser providing support and mentoring while members interact with each other during weekly chapter meetings. Similarly, an engaging atmosphere is created as Greek-letter organizations promote enriched educational experiences (e.g., philanthropy events), active learning (e.g., leadership positions), and academic challenges (e.g., grade point average requirements and study halls). Likewise, there are multiple opportunities for skill and performance development in individual chapters. As a result, the current study is designed to examine the variable of student engagement and how it may moderate the role of Greek life membership on vocational identity, career decision-making self-efficacy, and levels of goal instability. Finally, the Greek Life Engagement Questionnaire, adapted by the current researcher, was based on similar facets represented on the NSSE and Revised Student Engagement Questionnaire (REEQ) (Handelsman et al., 2005). Additionally, the measure of Greek life engagement assesses cognitive, emotional, and behavioral engagement.

**Research on Engagement and Student Outcomes**

As colleges and universities continue to promote service and student engagement to increase civic responsibility, it is important to determine the benefits gained from such experiences. While prior research consistently shows that engagement leads to better understanding, higher academic performance, and greater satisfaction, few studies have addressed the link between student engagement, mental health outcomes, psychosocial development, and career variables. Although gender differences have not been investigated in engagement studies of Greek life students, the existing literature suggests that male students interact less frequently with faculty and do not participate in service learning as frequently as
female students (Sax, Bryant, & Harper, 2005). On the other hand, men are typically over-represented in campus leadership positions and intercollegiate athletics. It should also be noted that other studies have either found no gender effect or yielded results that were inconclusive (Howard, James, & Taylor, 2002). Finally, minimal gender differences have been found in areas related to vocational training (e.g., training for a very specific set of job skills, such as a plumber), openness to diversity, and academic confidence (Pascarella & Terenzini, 2005). The following sub-section discusses how engagement influences the mental health, civic, academic, and career development of college students.

**Mental Health and Engagement**

College students are diagnosed with depression at levels slightly above the general population, and of that group, up to 53% report having experienced depression since the beginning of college (Green & Ritter, 2000). Depression is also linked to a variety of other consequences and mental health disorders. It is significantly related to higher levels of anxiety, stress, suicide attempts, physical illnesses, risky sexual behavior, and academic problems (Burke & Stephens, 2006). Females are approximately twice as likely as males to develop depression, and young people who experience loneliness are more likely to become depressed in college (Green & Ritter, 2000). The onset of depression typically occurs in adolescence or early adulthood, the time when many individuals enroll in a college or university. Therefore, services provided by these institutions play a key role in intervening and helping to prevent depression among college students.

Higher stress levels, which can lead to depression, likely result from the transitional nature of college as students must assume responsibility for other factors such as finances, time, and health-related matters. Student engagement is important and may serve as a prevention strategy for depression, anxiety, and stress. School connectedness and community involvement
have been linked to lower risk for emotional distress and loneliness, particularly among college students (Kardash, 2000). Students who are engaged in activities report better relations among peers and faculty, develop a sense of control, and accept their schools’ missions and values more quickly than students who are disengaged (Kardash, 2000). Engagement may be the learning tool needed to help students develop bonds among peers and facilitate service to their communities, thus reducing the risk of developing depression or anxiety disorders. Similarly, engagement promotes feelings of empowerment among learners and helps them develop control over their actions. The gain in control, engagement in civic actions (e.g., philanthropies), and overall commitment to a chapter of a Greek-letter organization may reduce anxiety, increase self-efficacy, and provide a better sense of self.

Harward (2007) used quantitative and qualitative measurements, as well as campus-level and cross-site levels, to assess student outcomes (academic, social, personal, civic, health) of service-learning participation. After the project’s first year, findings supported that service learning promotes greater satisfaction and better academic performance. More importantly, cross-site results of student engagement indicated that higher levels of engagement and civic development were associated with lower depression levels. Another study conducted by Anagnopoulos (2006) examined the relationship between undergraduate research and student satisfaction. The results suggested that utilizing research can promote stronger connections with peers and faculty while simultaneously providing a sense of purpose for Native American students. These findings show that engagement can promote positive attitudes about student experiences while concurrently decreasing feelings of alienation and anxiety.
**Civic Responsibility and Personal Development**

Civic responsibility and positive personal and social skills develop as students participate in their communities and link course content to their daily lives. Engaged learning and student engagement promote greater understanding of community problems, knowledge of different cultural and racial backgrounds, and experience interacting with others. The ability to work cooperatively, think critically, and resolve conflicts are also strengthened. Service participants exhibit increases in self-confidence and leadership compared to nonparticipants (Kuh, 2003b). Engagement can foster deeper social connections with and feelings of responsibility toward school faculty and peers as well as community leaders and external organizations.

Astin and Sax (1998) found support for the relationship between engaged learning and enhanced student personal and social outcomes. In their study, service participants reported greater personal and social growth as well as increasing feelings of self-confidence about abilities. Service participants were more strongly committed to helping others, working cooperatively with others, and promoting racial understanding. These results suggest that service learning is a valuable tool educators can use to enhance student experiences while also allowing students to become more socially aware, which is a major goal of many academic institutions.

Frederick (2007) assessed social, civic, and academic engagement levels with retention rates at Millersville University. Specifically, he randomly assigned first-year students to one of five learning community topics, and students were required to complete mid-semester and end-of-year evaluations. Responses from the pre- and post-semester civic responsibility questions indicated that students in the service-learning group discussed ways to become better citizens, help others in need, and adhere to and uphold laws or standards of the community. In contrast,
answers of non-service participants focused on the self and personal standards, demonstrating a lack of clear understanding of civic responsibility.

**Academic Performance and Career Development**

Engaging students is one method educators can utilize to enhance academic performance, faculty relationships, and overall development among students. Research consistently shows that college students learn more when purposeful activities are available to direct their efforts (Strage, 2000). The more opportunities students have to practice and get feedback on analyzing, writing, and problem solving, the more likely it is that students will become adept in those areas. Astin and Sax (1998) found that the effects of participating and actively engaging resulted in greater academic development, higher grade point averages, increases in knowledge, improvements in academic self-concepts, and aspirations for advanced education degrees.

Due to the lack of empirical research on the relationships between service-learning, engagement, and academic achievement, Strage (2000) conducted an experiment on 477 students in an introductory child development course to assess how service-learning and engagement contributed to learning outcomes. She found that the student-learning group performed significantly higher on exams and wrote more critical narratives than did non-service group participants. Her results were consistent with previous research findings that suggested engaging students in authentic settings can promote higher-order thinking and enhanced academic curiosity. In addition to greater academic learning and performance, student engagement can foster improved understanding of one’s interests, abilities, skills, limitations, and personality preferences, ultimately raising self-awareness and providing a sense of purpose (Pascarella & Terenzini, 2005).
Students who engage in “educationally purposeful activities” outside the classroom are also more adept to succeed and be prepared in the workplace (Kuh, 2003). By integrating learning across the curriculum, reflecting on course discussions, and applying what they have experienced inside and outside the classroom, students often analyze, synthesize, make judgments, and find meaning. In summary, engagement in meaningful activities can act as an emotional buffer and potentially decrease the risk of developing depression and emotional distress. Engaged learning provides students the means to become connected with faculty and other students while concurrently increasing feelings of responsibility and a sense of purpose. Authentic forms of instruction and engagement further foster civic responsibility while simultaneously impacting students’ moral, social, and personal development. A greater sense of personal efficacy and overall empathy for the people they work with is also associated with engagement in purposeful practices. Finally, student engagement can foster overall career development. Specifically, research shows that student engagement is associated with higher levels of career planning, increased productivity, better work performance, and enhanced leadership skills (Lapan, 2004). Likewise, it is common practice for university career center practitioners to collaborate with staff responsible for civic education, leadership, and engagement (e.g., Florida State University; St. Mary’s University).

Greek Member Engagement and Educational Practices

Research consistently shows that students who devote more time, energy, and effort to educational activities beyond the classroom setting by talking with faculty members, interacting with peers, or participating in service activities attain greater benefits than those students who do not (Kuh, 2001). Specifically, engagement in these educational and purposefully based activities appears to promote problem-solving and decision-making behaviors. Members of sororities and
fraternities have increased opportunities to engage in these effective educational practices by immersing themselves in different on-campus environments (Hayek, Carini, O’Day, & Kuh, 2002). Similarly, it is typical for members to develop relationships with individuals from diverse backgrounds (e.g., religious perspectives, occupational aspirations, locations within urban or urban areas) and to participate in activities that have potentially global impacts (e.g., philanthropies). Finally, participating in chapter meetings or serving as chapter officers can require critical thinking, problem-solving, and judgment making skills as well as skills related to analysis, synthesis, and decision making. As a result, these students are likely to develop advanced knowledge, key skills, and positive attitudes for solving problems as well as higher levels of psychosocial adjustment and career development.

While comparing measures of student engagement between Greek-members and non-Greek students, Hayek et al. (2002) found that individuals participating in sororities and fraternities were slightly more engaged in the domains of service, personal learning, student-faculty learning, and academic performance. Similarly, Pike (2003) showed that seniors of Greek-letter organizations experienced higher gains in personal development, academic growth, and active learning than seniors who had not joined sororities or fraternities. Because only a few studies have examined the relationship between career development and engagement in Greek-letter organizations, and because no study has examined the variables of vocational identity, career decision-making self-efficacy, and levels of goal instability with respect to student engagement, the current study focused on engagement to serve as a moderator variable. Cumulative grade point average was an additional moderator. It should also be noted that all undergraduate students at Florida State University not affiliated with a Greek-letter organization had a cumulative grade point average (GPA) of 3.070 while all members of sororities and
fraternities had a mean cumulative GPA of 3.092 during the spring 2012 semester. Across both groups, females (Greek = 3.198, non-Greek = 3.160) reported a higher GPA than their male counterparts (Greek = 2.944, non-Greek = 2.960; Florida State University Greek Report, 2012). Focusing exclusively on senior students attending the Florida State University, the Office of Institutional Research reported to the Florida Board of Governors that of the 11,082 registered seniors, the cumulative grade point average of seniors during the fall 2012 semester was 3.11 (personal communication, April 1, 2013).

**Critical Analysis of the Literature**

Based on a review of the literature, the constructs of vocational identity, career decision-making self-efficacy, and goal instability have received investigation and research attention. Several correlates have also been identified through the literature; vocational identity is positively associated with life satisfaction, occupational commitment, personal well-being, and self-efficacy. Likewise, as vocational identity increases, dysfunctional thoughts typically decrease. Similarly, career decision-making self-efficacy beliefs and goal directedness are linked to motivation, persistence, well-being, and career planning. Finally, higher levels of goal instability are related to lower levels of identity development. While these findings are important, additional questions need to be addressed, and more diverse populations need to be tested.

Significant research has examined how college students establish a sense of identity and related personality characteristics. Additionally, psychological (e.g., Erikson) and cognitive development theories (e.g., Bandura) have been proposed to better understand student development, well-being, and overall success. Previous findings also demonstrate that higher levels of career decision-making self-efficacy contribute to greater levels of motivation and
exploration. However, environmental factors that enhance personal development and vocational identity, as well as out-of-class experiences that promote self-growth, self-efficacy, goal directedness, and understanding, are rarely examined (Pascarella & Terenzini, 2005). For example, how might participation in social activities provide information sources (e.g., performance accomplishment, vicarious learning) to increase one’s level of self-efficacy? Greek life students, especially female, are one sub-group specifically overlooked in current literature related to student development outcomes (Tripp, 1997). Additionally, there continues to be a paucity of empirical research examining the Greek life community. For example, Molasso (2005) found that very few articles have been published on fraternity or sorority members in college student development journals, such as the Journal of College Student Development (JOCSD) (2%) and the National Association of Student Personnel Administrators (NASPA) (3%). To better understand and serve this population, additional research is needed.

As discussed above, research examining the constructs of vocational identity, career decision-making self-efficacy, and goal instability are found in the career counseling literature. However, several limitations exist, and no studies have directly investigated the impact of all three variables among members of the college student population who are concurrently active members in a sorority or fraternity. Additionally, minimal research has focused on the influence of student engagement and how this moderates goal instability, career decision-making self-efficacy, or vocational identity. As a result, a logical next step is conducting research using a measure of student engagement for Greek life students—especially because engagement is a superior predictor of future student learning, civic responsibility, and moral development (Kuh, 2003). Therefore, a final aim of the current study was to provide more insight regarding the
effects of student engagement in Greek-letter organizations on career development outcomes by creating and validating a questionnaire assessing engagement in sororities and fraternities.

In summary, and due to experience, exposure, feedback, and social support, individuals affiliated with Greek-letter organizations may develop an enhanced vocational identity. Similarly, as members gain confidence, acquire networking connections, and use social resources, career decision-making self-efficacy could be strengthened (Vieno et al., 2007). Although previous research has rarely investigated the construct of goal instability in relation to career development and never among a sample of sorority or fraternity members, it was predicted that students participating in Greek life would be more committed to goals, experience lower goal instability, and have a better sense of direction when compared to their non-Greek counterparts. The present study sought to examine how membership in sororities and fraternities impacted these three variables. Several studies have also indicated that student engagement leads to higher gains in academic, personal, social, and vocational development (Morgan, 2001). Therefore, amount of engagement served as a moderator variable to assess whether there were group (Greek versus non-Greek) or gender (male versus female) differences among vocational identity, career decision-making self-efficacy, or levels of goal instability.

Gaps in the Research

After analyzing and reviewing relevant literature, several content and methodological gaps were found. For example, the majority of research has focused on negative or adverse effects of Greek membership, while few studies have devoted attention to assessing potential benefits of Greek-letter organizations for the individual (e.g., better career decision-making self-efficacy beliefs), institution (e.g., higher graduation and college satisfaction rates), or society (e.g., increased employment rates). Similarly, research has not explored how engagement within
social environments, such as the Greek life community, functions to influence personal development and identity formation.

In terms of other content gaps, minimal research has examined strength of vocational identity and extent of goal directedness, or goal instability, when making career decisions. While previous researchers have found a relationship between higher levels of goal instability and lower levels of self-efficacy, as well as a relationship between lower vocational identity and greater goal instability, no data exists on relationships among all three variables—especially as they impact different cultures, student sub-populations, or campus groups (e.g., active members in Greek life). Similarly, little attention has been directed towards the impact of Greek life membership and engagement on the career development and planning of college students (DeBard, Lake, & Biner, 2006). Therefore, a key aim for the present study was to extend previous research by investigating vocational identity, career decision-making self-efficacy, goal instability, and student engagement levels in a sample of Greek life college students.

The current study also addressed methodological issues noted within the literature. For example, the majority of previous research lacks comparison groups, has insufficient sample sizes, and has focused mainly on freshman students (Mathiasen, 2005). As a result, a sample with adequate power, a control group (e.g., students not participating in Greek-letter organizations), college seniors, and an overall representative sample were targeted. Employing psychometrically sound instruments and conducting multivariate analyses of variance and covariance were performed to resolve the gap of invalid instruments and to move beyond simple correlational analyses (Pau & Bai, 2007). Finally, the following research questions were posed:

1) What is the impact of Greek-letter membership on college students’ vocational identity, career decision-making self-efficacy, and goal instability?
2) Do college students differ on average levels of vocational identity, career decision making self-efficacy, and goal instability according to gender and whether they participate in Greek life?

3) After controlling for amount of engagement in Greek-letter organizations, is there a statistically significant difference among the dependent variables (vocational identity, career decision-making self-efficacy, and goal instability) by group (Greek and non-Greek) and gender (female versus male)?
CHAPTER 3

METHODOLOGY

While Chapter 1 and Chapter 2 provided a theoretical background and rationale for examining the impact of Greek life membership on vocational identity, career decision-making self-efficacy, and goal instability among college students, the present chapter focuses on specific hypotheses developed from research questions, discusses variables of interest, and describes instruments that were used in the current study. Additionally, the population of interest, research design, and statistical analyses needed for interpreting data are addressed. Finally, it should be noted that the Human Subjects Committee of the Institutional Review Board at The Florida State University granted permission to conduct the current research study. (See Appendix A).

Research Questions and Hypotheses

Based on previous empirical findings and the current research gap, three research questions and four alternative hypotheses were examined. Additionally, one null hypothesis (number 4) was examined due to mixed and inconsistent findings in the literature with respect to gender. These hypotheses are represented as follows:

Research Question 1

What is the impact of Greek-letter membership on college students' vocational identity, career decision-making self-efficacy, and goal instability?

H1: Members of Greek-letter organizations will report higher vocational identity than non-Greek members as measured by total score on the Vocational Identity (VI) Scale.

H2: Members of Greek-letter organizations will report higher career decision-making self-efficacy than non-Greek members as measured by total score on the Career Decision-Making Self-Efficacy Scale—Short Form (CDMSE—SF).
**H3:** Members of Greek-letter organizations will report lower levels of goal instability than non-Greek members as measured by the total score on the Goal Instability Scale (GIS).

**Research Question 2**

Do college students differ on average levels of vocational identity, career decision-making self-efficacy, and goal instability according to gender and participation or non-participation in Greek life?

**H4:** No significant differences will be found between genders on mean scores on the Vocational Identity (VI) Scale, Career Decision-Making Self-Efficacy—Short Form (CDMSE—SF) Scale, or the Goal Instability Scale (GIS) of Greek life and non-Greek students.

**Research Question 3**

After controlling for amount of engagement in Greek-letter organizations, is there a statistically significant difference among the dependent variables (vocational identity, career decision-making self-efficacy, and goal instability) by group (female versus male)?

**H5:** After controlling for amount of engagement, there will be a statistically significant difference among the variables of vocational identity, career decision-making self-efficacy, and goal instability by gender. In other words, after adjusting by the covariate of engagement, the two means will not be equal.

**Instrumentation**

The Vocational Identity Scale, Career Decision-Making Self-Efficacy Scale, Goal Instability Scale, and Greek Life Engagement Questionnaire represent the primary measures for the current study. Additionally, the Occupational Alternatives Questionnaire (OAQ; Zener & Schnelle, 1972; modified by Slaney, 1980) and demographic form provided descriptive data. The
following section gives an overview of each measure—specifically addressing the purpose, content, reliability, and validity. Finally, selected assessments were utilized because they coincide with the theoretical foundations described above.

**Demographic Form**

This form (see Appendix B) was used to collect demographic information and related characteristics on participants’ gender, ethnicity, age, cumulative grade point average, and academic major. Information was also collected on Greek membership status (i.e., yes, no).

**Occupational Alternatives Questionnaire**

The Occupational Alternatives Questionnaire (OAQ) (Zener & Schnuelle, 1972; modified by Slaney, 1980) was embedded within the demographic questionnaire as a measure of vocational certainty and career decidedness. This measure consists of the following two items: 1) “List all of the occupations you are considering right now,” and 2) “Which occupation is your first choice? (If undecided write “undecided”).” Based on a scoring method developed by Slaney (1980), the OAQ is calculated on a scale using one to four points. Specifically, one point is given for a first choice listed without alternatives, and two points are given for a first choice listed with alternatives. With only alternatives and no first choice listed, three points are given, while four points are given when neither a primary choice nor an alternative is listed. Slaney (1980) also used his scoring system to indicate level of decidedness, with 1 being most decided and 4 representing least decided.

In terms of psychometric properties for the OAQ, Redmond (1972) found a test-retest reliability of 0.93, while Slaney (1978) found satisfactory test-retest reliabilities over a six-week period. Similarly, Slaney, Palko-Nonemaker, and Alexander (1981) found evidence for the validity of the OAQ, and Slaney, Stafford, and Russell (1981) showed supporting evidence of
convergent validity with measures related to the Career Decision Scale and Vocational Decision Making Difficulties Scale.

**My Vocational Situation**

My Vocational Situation (MVS) (Holland et al., 1980) is derived from Holland’s person-environment fit theory, assesses three factors of career decision-making, and consists of the following three subscales: vocational identity (VI), occupational information (OI), and barriers (B). The MVS is often completed in ten minutes, and the norm group for each scale was based on a sample of 496 high school sophomores (Westbrook, 1985). For the purposes of the present study, only the VI scale was utilized.

Holland, Gottfredson, and Power (1980) defined vocational identity as the “possession of a clear and stable picture of one’s goals, interests, and talents” (p. 1191). The Vocational Identity (VI) scale assesses vocational development and is appropriate to use with college students. This scale consists of 18 true/false statements with possible scores ranging from 0 to 18, with a higher number of “false” responses indicating clearer vocational identity (Orkini, 2010). Sample statements include “No single occupation appeals to me strongly” and “I am not sure of myself in many areas of life.”

Instrument norms are based on a sample of 1,072 individuals, including 295 college students, 496 high school students, and 281 full-time employees (Holland et al., 1980). Reardon, Lenz, & Strausberger (1996) conducted a study using the MVS with college students, and results indicated further evidence for the validity of this assessment when working with this demographic, which is the population examined in the current study.

The Vocational Identity Scale shows evidence for acceptable psychometric properties. For example, Holland et al. (1980) assessed the internal consistency of this measure for male and
female college students. The reliability for male vocational identity was 0.89 while the reliability for female vocational identity was 0.88 (Holland et al., 1980). Similarly, Nicholas and Pretorious (1994) examined the internal consistency of the VI scale using a sample of African American college students. Reliability results were 0.78 for women and 0.80 for men, which were satisfactory. In terms of test-retest reliability, Lucas, Gysbers, Buescher, and Heppner (1988) found an \( r \) value of 0.64 over a three- to five-month period for the VI scale. Finally, this scale is self-administered and is quickly and objectively scored.

Validity for the MVS and VI scale is well established. More than 50 studies have been published supporting the validity of the VI scale, and evidence also exists for adequate factorial, convergent, discriminant, construct, and content validity (Holland et al., 1993; Lucas et al., 1988; Westbrook, 1985). For example, Leong and Morris (1989) found negative correlations between low vocational identity, social anxiety, and intolerance for ambiguity, but positive correlations between high vocational identity and rational decision-making behaviors, career maturity, and self-confidence. Similarly, Holland, Gottfredson, and Power (1980) found a positive correlation between vocational identity and age. In other words, as age increases, the stability and clarity of one’s vocational identity also increases.

**Career Decision-Making Self-Efficacy Scale—Short Form**

To measure participants’ beliefs and confidence in completing certain career decision-making tasks, Taylor and Betz (1983) constructed the Career Decision Making Self-Efficacy (CDMSE) Scale. The original questionnaire consisted of 50 items that were based on a 10-point Likert scale and included the following five subscales: 1) self-appraisal, 2) goal section, 3) making future plans, 4) problem-solving, and 5) gathering occupational information. Sample items included “Choose a career that will fit your preferred life style” and “Make a plan of your
goals for the next five years.” Additionally, total scores ranged from 90 to 450. While the original scale showed evidence for high reliability (0.97), the Career Decision-Making Self-Efficacy Scale—Short Form (CDMSE-SF) (Betz et al., 1996) was developed to serve as a briefer assessment (half the length) that could be easily administered for research purposes or during the assessment process. Previous empirical findings suggest that the short form has comparable psychometric properties to the original, longer questionnaire (Betz, Klein, & Taylor, 1996). The original and short forms are based on the theoretical framework of social cognitive career theory (SCCT; Lent, Brown, & Hackett, 2002).

The Career Decision-Making Self-Efficacy Scale—Short Form (CDMSE—SF) (Betz, Klein, & Taylor, 1996) was created by removing five of the ten items from each of the original five CDMSE scales (e.g., goal selection) and includes 25 items based on a 5-point Likert scale. Sample items include “How much confidence do you have that you could persistently work at your major or career goal even when you get frustrated?” and “How much confidence do you have that you could select one occupation from a list of potential occupations?” The total score is calculated by summing across the five-scale scores, with higher scores indicating greater career-decision making self-efficacy.

The normative sample for the CDMSE-SF was based on 346 college students and showed evidence for acceptable reliability and validity; for the total score, the internal consistency coefficient for the five subscales ranged from 0.73 (self-appraisal) to 0.83 (goal selection), and the coefficient alpha for the total score was 0.97 (Betz, Klein, & Taylor, 1996). Similarly, research examining the college student population has supported the internal consistency of each scale (Nilsson, Schmidt, & Meek, 2002). Likewise, Luzzo (1993) reported adequate test-retest reliability (0.83) over a six-month period. Finally, the CDMSE-SF has evidence of concurrent,
convergent, divergent, and criterion validity (Blustein, 1989). For example, Betz and Kelin (1996) showed that this measure correlates ($r = 0.59$ for males and $r = 0.50$ for females) with other measures of self-efficacy, while Osipow (1987) also established concurrent validity with the Career Decision Scale. Finally, total scores on the CDMSE-SF have positively correlated with career decidedness and vocational identity, both of which are positive career constructs and provide support for the construct validity of this measure (Betz, Klein, & Taylor, 1996; Holland, Daiger, & Power, 1980).

**Goal Instability Scale**

The Goal Instability Scale (GIS) (Robbins & Patton, 1985), which was designed using Kohut’s (1984) self-psychology theory, is a ten-item self-report measure used to assess the participant’s goal directedness or absence of orienting goals. Research also suggests that this instrument provides information on students’ general motivation toward personal career development (Casillas et al., 2006). Items are based on a six-point Likert scale, with one representing “strongly agree” and six indicting “strongly disagree.” Sample statements include “I have more ideas than energy” and “I wonder where my life is headed.” The GIS is scored by summing all responses across the ten items, with higher total scores indicating better goal directedness and lower goal instability. On the other hand, lower scores suggest higher goal instability.

In terms of reliability, Cronbach’s alpha has ranged from $\alpha = 0.81$ to $0.87$ while the test-retest reliability over a two-week period was $r = 0.76$. These values suggest that the Goal Instability Scale demonstrates high internal consistency and acceptable stability (Blustein & Palladino, 1991; Robbins & Patton, 1985). In terms of validity, confirmatory factor analysis has supported a one-factor model and therefore the current study will only examine total scores on
the GIS (Robbins, Payne, & Chartrand, 1990). Previous research has also supported a relationship between GIS and variables related to career, personal adjustment, and academic performance (Multon, Heppner, & Lapan, 1995). Similarly, Robbins and Patton (1985) found negative correlations (-.22) between higher scores on the GIS (lower goal-directedness) and career indecision. Finally, the Goal Instability Scale has correlated with scales (e.g., social withdrawal) on the Millon Clinical Multiaxial Inventory and on measures related to career planning confidence (McAuliffe, Jurgens, Pickering, Calliotte, Macera, & Zerwas, 2006).

**Greek Life Engagement Questionnaire**

Handelsman, Briggs, Sullivan, and Towler’s (2005) Revised Student Engagement Questionnaire is a 24-item instrument that was adapted by the current researcher to assess Greek life engagement levels. Specifically, instructions regarding the extent to which items were descriptive or characteristic of the responder were changed from “in this course” to “while being a member in a Greek-letter organization,” and a five-point Likert scale was used for all items. Items were modified to reflect Greek life experiences. The measure consists of a total engagement score and includes the following two subscales: 1) behavioral engagement and 2) attitudinal engagement. Sample items include how frequently a member “held an officer position” and “attended chapter meetings” throughout the duration of his/her Greek life membership. This engagement measure is based on Astin’s (1993) involvement theory as it focuses on how experiences relate to behaviors, cognitions, and emotions.

Prior to actual use in this study, and based on the population of interest, a pilot survey was conducted in which recent graduates (n = 31) of Greek-letter organizations indicated which items to omit or revise. Additionally, each pilot participant was given an opportunity to add items or share what he or she thought was missing from the questionnaire. After receiving
constructive responses from each alumnus who participated in the pilot study, the wording of three questions was revised and one question was replaced. Similarly, student affairs personnel working in the Office of Greek Life were asked to provide feedback on items prior to conducting the present research study. As a result, content validity was established by linking items to the current literature and by obtaining feedback from alumni and related experts in the field. An exploratory factor analysis was also conducted following data collection to confirm that the items were based on a single construct. Results described in the next chapter also provide an alpha coefficient for this measure.

**Sampling**

**Power Analysis and Sample Size**

A priori power analyses using a one-way between-group design were performed using G*Power 3.1.2 software to determine the highest number of participants needed to conduct analysis of variance analyses consistent with the research hypotheses. Based on an alpha level set to 0.05, a moderate effect size (0.35), a power level set to 0.80, and the use of four predictors, the ideal sample size \(N\) required for the current study and to maximize power was 292 college students (146 participants per group). Due to the risk of a low response rate and to increase the probability that results would be statistically significant with a moderate effect size, an additional 708 students (for a total of 500 participants per group) were sent questionnaires.

**Population**

Research findings obtained from the current study can be generalized to other college seniors attending a large public research university within the southeast and who also actively participate in Greek life. Additionally, and because of the variety of Greek-letter councils represented, results and clinical implications can be generalized to the Interfraternity Council
(IFC), the National Panhellenic Council (NPHC), the Latino Greek Council (LGC), and the National Panhellenic Conference (NPC). Finally, participants in this population represented a wide range of academic majors and showed varied levels of vocational identity, career decision-making self-efficacy, goal instability, and Greek life engagement.

Sample Participant Characteristics

Approximately 500 Greek and non-Greek students, who were classified as college seniors from a single, large public research university located in the southeastern United States, were recruited for the current study during Fall 2012. Seniors were intentionally selected because the effects of membership in a sorority or fraternity are likely more pronounced than for first-year students due to more time having been spent interacting with peers (e.g., living in the house longer) and with faculty members, as well as opportunities for gaining a sense of vocational identity (e.g., holding officer positions), career decision-making self-efficacy (e.g., serving on committees), and goal directedness (e.g., committing to philanthropies).

All participants received an online survey link through their university email address inviting them to participate in the current study. This yielded a response rate of 49% and 50%, respectively for Greek and non-Greek students. A total of 61 surveys (42 Greek and 19 non-Greek) were not included in the data analysis because the questionnaires were not fully answered and therefore may have resulted in erroneous scoring. As a result, the adjusted response rate was 41% (N = 205) and 46% (N = 231).
Table 3.1 \textit{Sample Characteristics with Frequencies and Percentages}

<table>
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<th>Variable</th>
<th>Frequency = N</th>
<th>Percent %</th>
</tr>
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<tbody>
<tr>
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<tr>
<td>Male</td>
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<tr>
<td>Female</td>
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<tr>
<td>GPA</td>
<td>Mean = 3.41</td>
<td>Standard Deviation = 0.4</td>
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</tbody>
</table>

Table 3.1 presents demographic data for the present sample. The mean age was 21.2 years (range = 19 - 25, SD = 1.79) and 77% were female. Race/ethnic identity was reported as Caucasian (72.7%), Hispanic (12.8%), African American (7.3%), mixed (3.2%), Asian (2.8%), Indian (0.7%), and Hawaiian (0.4%). The average grade point average (GPA) for the total sample was 3.41 (SD = 0.401). A wide range of majors were represented, such as creative writing, biological science, marketing, French, dietetics, education, retail merchandising, criminology, psychology, nursing, accounting, religion, and dance. Similarly, the majority of participants indicated being employed (e.g., Subway) and participating in an on-campus organization (e.g., the Navigators).

All participants completed the Occupational Alternatives Questionnaire (OAQ), Vocational Identity (VI) Scale, Career-Decision Making Self-Efficacy Scale—Short Version.
(CDMSE—SF), and Goal Instability Scale (GIS). Additionally, students affiliated with Greek-letter organizations completed the Greek Life Engagement Questionnaire (described earlier in this chapter). It should also be noted that the non-Greek students served as the control group, and students who had previously dropped out of a sorority or fraternity during their college experience were excluded from participation in the present study. The sample was also restricted to sororities and fraternities that have membership houses on-campus. Data were collected during August 2012 and October 2012. Finally, participation was voluntary and based on a sample of convenience due to the accessibility and proximity of active participants.

**Procedures**

Prior to actual data collection, approval to implement the current study was obtained through the University’s Institutional Review Board (IRB). After receiving permission from the IRB, Robyn Brock from the Office of Greek Life played a significant role in selecting senior participants affiliated with sororities and fraternities by using a random number generator and also providing their respective student email addresses. Survey links were initially distributed on August 21, 2012 and again on September 15, 2012 to remind selected students to participate. Assistance from Mike Spear, a staff member in the Registrar’s Office at the Florida State University, was also used to randomly select senior (and only senior) control participants. Control participants were first invited to complete the survey on September 12, 2012, and the survey link was re-distributed on October 3 (three weeks later) to increase this group’s sample size. These individuals were also emailed a survey link directing them to the current study.

Data collection was implemented through an online survey system known as “Qualtrics.” After receiving an email inviting participants to complete the questionnaires of the current study, all students read the online consent form (Appendix C) and had the opportunity to voluntarily
participate. In addition, students were made aware that they could withdraw at any point during the study. The following questionnaires were administered to all participants in the same order: demographic form, Vocational Identity Scale (Appendix D), Career-Decision Making-Self-Efficacy Scale (Appendix E), and Goal Instability Scale (Appendix F). Members of Greek-letter organizations also completed the Revised Student Engagement Questionnaire (Appendix G). Following completion of the survey, students were shown an electronic debriefing form (Appendix H). The survey link remained active through November 2012. Finally, participants were not asked to give their names, and any related identifying information (e.g., email address) was destroyed at the end of the data collection process to ensure confidentiality. The following section provides information on how data was analyzed and interpreted upon data collection.

**Research Design and Variables**

The present study used a quasi-experimental, causal-comparative design that included group (Greek versus non-Greek) and gender (male versus female) as the two categorical independent variables (IVs). The continuous dependent variables (DVs) were vocational identity, career decision-making self-efficacy, and goal instability. Vocational identity was operationalized using the total score on the Vocational Identity (VI) Scale from the My Vocational Situation (MVS; Holland, Daiger, & Power, 1980) assessment. The Career Decision Self-Efficacy Scale-Short Form (CDSE-SF; Betz et al., 1996) was utilized to operationalize career decision-making self-efficacy while goal instability was operationalized using the Goal Instability Scale (GIS; Robbins & Patton, 1985). Amount of engagement served as the moderating variable and was assessed using a 24-item instrument adapted from the Revised Student Engagement Questionnaire (Handelsman et al., 2005).
Data Analyses

Data were analyzed using SPSS (Statistical Package for the Social Sciences; IBM Corp., 2010) version 19.0. After computing descriptive statistics based on demographic information, inferential statistics were conducted. To explore the first research question, scores obtained from participants’ various inventories were compared using a one-way multivariate analysis of variance (MANOVA). For the second research question, a two-way MANOVA was conducted. Specifically, group (Greek and non-Greek) and gender (male and female) served as the categorical independent variables, while vocational identity, career decision-making self-efficacy, and goal instability served as the continuous dependent variables. To examine the final question and to assess for a potential moderating effect, a multivariate analysis of covariance (MANCOVA) was utilized to determine if group differences existed after controlling for level of student engagement in Greek-letter organizations (e.g., high, medium, or low).

Based on previous research suggestions, and due to the categorical nature of the independent variables and continuous nature of the dependent variables, these analyses appeared appropriate for the current study (Frazier et al., 2004). To control for multiple comparisons and type 1 error, or rejecting the null hypothesis when it is actually true, a Bonferroni correction was also utilized. Finally, for the purposes of the present study significance was set to $p < 0.05$. 
CHAPTER 4

RESULTS

The main focus of this chapter is to present the findings of the current study. After stating the means and standard deviations for each questionnaire utilized, results in relation to each proposed research question and hypothesis are provided. Findings from additional analyses are also explored. In order to examine differences between members of Greek-letter organizations and non-Greek members on constructs related to vocational identity, career decision-making self-efficacy, and goal instability, multivariate analyses of variance (MANOVA) were performed. This chapter concludes with a summary of findings.

Reliability of Measures

Scale reliability analyses were conducted for the Vocational Identity (VI) Scale and Goal Instability Scale (GIS), while scale and subscale reliability analyses were conducted for the Career Decision-Making Self-Efficacy—Short Form (CDMSE—SF) Scale. Due to the single-item structure of the Occupational Alternatives Questionnaire (OAQ), a reliability index could not be calculated. Cronbach’s alpha served as a measure for internal consistency and was calculated to be $\alpha_{\text{sample}} = 0.88$ for the VI scale and $\alpha_{\text{sample}} = 0.90$ for the GIS. The Vocational Identity Scale coefficient was comparable to the normative data (e.g., 0.86 to 0.89) and also to coefficients reported in previous studies (Holland et al., 1980; Orkibi, 2010). Similarly, the estimate of internal consistency of the Goal Instability Scale for the present study was consistent with prior empirical findings ($\alpha = 0.89$; Multon, Heppner, Lapan, 1995; Multon, Heppner, Gysbers, Zook, & Ellis-Kalton, 2001). The participant alpha coefficients for the CDMSE—SF total score and subscales were calculated as follows: Total ($\alpha_{\text{sample}} = 0.94$), Self-Appraisal ($\alpha_{\text{sample}} = 0.81$), Occupational Information ($\alpha_{\text{sample}} = 0.85$), Goal Selection ($\alpha_{\text{sample}} = 0.82$), Planning ($\alpha$
sample = 0.80), and Problem Solving (α sample = 0.79). These findings are consistent with reported coefficients from previous studies as well as normative data, specifically indicating internal consistency reliability estimates of the subscales as ranging from 0.79 to 0.87 and total estimates ranging from 0.94 to 0.95 (Betz et al., 2005; Luzzo, 1993; Nilsson, Schmidt, & Meek, 2002). Finally, the engagement questionnaire was pilot tested (n = 31) before being implemented with the experimental group on students who were members in Greek-letter organizations, to ensure the reliability of this measure. Cornbach’s alpha was found to be α sample = 0.75 with the pilot group and α sample = 0.77 for the actual sample of Greek member participants in the present study. Therefore, the internal consistency coefficients were considered adequate to test the hypotheses. Further analyses and evaluation of the proposed research hypotheses of the current study were examined based on the finding that all coefficient alphas were greater than α = 0.70 (Nunnaly, 1978).

**Descriptive Statistics of Measures**

Before testing the hypotheses of the current study, descriptive statistics were computed for the Occupational Alternatives Questionnaire (OAQ), Vocational Identity (VI) Scale, Career Decision-Making Self-Efficacy—Short Form (CDMSE—SF) Scale, and the Goal Instability Scale (GIS). The internal consistency was also examined for the subscales of the CDMSE—SF and the adapted engagement questionnaire prior to hypothesis testing. These findings are presented in Table 4.2. Overall, participants’ averaged T-scores and corresponding standard deviations were consistent with the normative data for college students (Betz, Klein, & Taylor, 1996; Blustein & Palladino, 1991; Nicholas & Pretorius, 1994; Nilsson, Schmidt, & Meek, 2002). The distributions also met criteria for normality.
Table 4.2 Descriptive Statistics of Primary Variables of Interest by Population

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Range</th>
<th>Mean</th>
<th>SD</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vocational Identity</td>
<td>436</td>
<td>0-18</td>
<td>12.58</td>
<td>4.71</td>
<td>-.763</td>
<td>-.394</td>
</tr>
<tr>
<td>Career Decision-Making S.E.</td>
<td>436</td>
<td>36-125</td>
<td>100.01</td>
<td>15.96</td>
<td>-.516</td>
<td>.084</td>
</tr>
<tr>
<td>Goal Instability</td>
<td>436</td>
<td>10-60</td>
<td>46.26</td>
<td>10.41</td>
<td>-.888</td>
<td>.452</td>
</tr>
<tr>
<td>OAQ</td>
<td>434</td>
<td>1-4</td>
<td>1.81</td>
<td>.938</td>
<td>1.01</td>
<td>.121</td>
</tr>
<tr>
<td>Engagement</td>
<td>205</td>
<td>1-3</td>
<td>1.58</td>
<td>.641</td>
<td>.652</td>
<td>-.558</td>
</tr>
<tr>
<td>GPA</td>
<td>435</td>
<td>2-4</td>
<td>3.40</td>
<td>.401</td>
<td>-.610</td>
<td>-.056</td>
</tr>
</tbody>
</table>

Research Questions and Hypotheses

The following section presents the five hypotheses and associated findings related to the three research questions examined in the current study. The presentation of the results is organized by each research question and will follow in chronological order. It should also be noted that correlations between key variables of interest did not reach a threshold of $r = 0.75$, and therefore multicolinearity was not a concern (Maxwell, 2001; Yoder, 2002). Specifically, bivariate correlations ranged from $r = 0.60$ to $r = 0.69$. Test results further indicated that the distribution was fairly normal and consistent with the demographic pattern of the population of interest, and there were no extreme outliers. Based on Levene’s test of equality of error variances, most of the dependent variables had equal variances ($p > 0.05$), further suggesting that a MANOVA could be conducted. Criteria and preliminary assumptions for having more participants than the number of dependent variables and a non-significant Box’s M value were also met.

**Research Question 1.** What is the impact of Greek-letter membership on college students' vocational identity, career decision-making self-efficacy, and goal instability?

*H1:* Members of Greek-letter organizations will report higher vocational identity than non-Greek members as measured by total score on the Vocational Identity (VI) Scale.

*H2:* Members of Greek-letter organizations will report higher career decision-making self-efficacy than non-Greek members as measured by total score on the Career
Decision-Making Self-Efficacy Scale—Short Form (CDMSE—SF).

**H3:** Members of Greek-letter organizations will report lower levels of goal instability than non-Greek members as measured by the total score on the Goal Instability Scale (GIS).

In order to examine the effect of group membership on vocational identity, career decision-making self-efficacy, and goal instability, a multivariate analysis of variance (MANOVA) was performed. A non-significant Box’s M test ($p = 0.35$) indicated homogeneity of covariance matrices for the three dependent variables across the tested groups. The MANOVA yielded an overall significant multivariate effect of group on all of the tested dependent variables, Wilk’s Lambda = 0.95, [$F (3, 432) = 6.16$, $p<0.001$, $\eta^2 = 0.041$]. Follow-up univariate ANOVA tests also yielded significant effects across the groups for vocational identity [$F (1, 434) = 11.379$, $p<0.001$, $\eta^2 = 0.026$], career decision-making self-efficacy [$F (1, 434) = 4.498$, $p<0.05$, $\eta^2 = 0.010$], and goal instability [$F (1, 434) = 16.18$, $p<0.001$, $\eta^2 = 0.036$]. The strength of association, or eta-squared value that provided information on the proportion of variance explained by being a member in a Greek-letter organization, was small to moderate (Chappell & Ham, 2011). As can be seen in Table 4.3, scores of participants who were Greek members were significantly higher than participants who were not members of Greek-letter organizations on all three measures.

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>Group</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Greek</td>
<td>Non-Greek</td>
<td>All</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
<td>F</td>
<td>p</td>
<td>$\eta^2$</td>
</tr>
<tr>
<td>Vocational Identity</td>
<td>13.38</td>
<td>4.45</td>
<td>11.87</td>
<td>4.82</td>
<td>11.37</td>
<td>.001</td>
<td>.026</td>
</tr>
<tr>
<td>CDMSE—SF</td>
<td>101.72</td>
<td>15.98</td>
<td>98.48</td>
<td>15.82</td>
<td>4.498</td>
<td>.034</td>
<td>.010</td>
</tr>
<tr>
<td>Goal Instability</td>
<td>48.35</td>
<td>9.49</td>
<td>44.40</td>
<td>10.85</td>
<td>16.188</td>
<td>.000</td>
<td>.036</td>
</tr>
</tbody>
</table>

In order to control the family wise error rate, a Bonferroni correction was performed by
dividing the significance level (0.05) by the number of tests (3) used in this analysis. It should also be noted that MANOVAs further helped to control for family wise error. Group membership explained 4% of the variance among these three variables, and vocational identity accounted for 2.6% of the variation while goal instability accounted for 3.6%. Career decision-making self-efficacy accounted for less than 1% of the variation, and may have been attributed purely to chance. These results support the predicted direction of the first, second, and third hypotheses: members of Greek-letter organizations reported higher levels of vocational identity, career decision-making self-efficacy, and goal directedness than non-Greek members.

**Research Question 2.** Do college students differ on average levels of vocational identity, career decision-making self-efficacy, and goal instability according to gender and participation or non-participation in Greek life?

**H4:** No significant differences will be found between genders on mean scores on the Vocational Identity (VI) Scale, Career Decision-Making Self-Efficacy—Short Form (CDMSE—SF) Scale, or the Goal Instability Scale (GIS) for Greek life and non-Greek life students.

A two-way multivariate analyses of variance (MANOVA) was performed to examine the joint effects of gender and group on the three outcome variables simultaneously. The main effect of group remained significant, Pillai’s Trace = 0.034, \( F(3, 430) = 5.09, p < 0.002, \eta_p^2 = 0.034 \). This represents a small-to-moderate effect size of association. No significant main effect of gender was found, Pillai’s Trace = 0.002, \( F(3, 430) = 0.234, p = 0.87, \eta_p^2 = 0.002 \). The two-way interaction of group by gender was also not found significant, Pillai’s Trace = 0.006, \( F(3, 430) = 0.837, p = 0.474, \eta_p^2 = 0.006 \). In other words, the effect of gender and the impact of group on each dependent variable were consistent across all levels of the independent variables.
(see Table 4.4). Therefore, the overall hypothesis for this research question was supported—males and females do not significantly differ on scales measuring vocational identity, career decision-making self-efficacy, or goal instability. This finding appears to be consistent across members of Greek-letter organizations and non-Greek students.

Table 4.4 Comparisons of Greek and non-Greeks on Outcome Measures Using a 2X2 MANOVA

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>Greek</th>
<th>Non-Greek</th>
<th>Greek</th>
<th>Non-Greek</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>Vocational Identity</td>
<td>13.93</td>
<td>3.8</td>
<td>13.14</td>
<td>4.6</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>11.69</td>
<td>4.9</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>11.90</td>
<td>4.8</td>
</tr>
<tr>
<td>CDMSE—SF</td>
<td>100.4</td>
<td>12.9</td>
<td>100.6</td>
<td>17.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>96.47</td>
<td>14.25</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>98.85</td>
<td>16.1</td>
</tr>
<tr>
<td>GIS</td>
<td>48.98</td>
<td>9.23</td>
<td>48.09</td>
<td>9.62</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>43.27</td>
<td>10.08</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>44.61</td>
<td>11.00</td>
</tr>
</tbody>
</table>

It is also interesting to note that as the research model became more complex, the variable of career decision-making self-efficacy accounted for or explained more variation (1.5%) among the dependent variables than in the model only examining group (1.0%). In other words, overall error decreased and group continued to account for 3.4% of the total variation.

**Research Question 3.** After controlling for amount of engagement in Greek-letter organizations, is there a statistically significant difference among the dependent variables (vocational identity, career decision-making self-efficacy, and goal instability) by group (female versus male)?

**H5:** After controlling for amount of engagement, there will be a statistically significant
difference among the variables of vocational identity, career decision-making self-efficacy, and goal instability by gender. In other words, after adjusting by the covariate of engagement, the two means will not be equal.

The final research question used multivariate analysis of covariance (MANCOVA) to assess the relationship between the covariate (engagement) and the three dependent variables. A main effect of engagement was found, Wilk’s Lambda = 0.91, $F(3, 200) = 6.05$, $p < 0.001$, $\eta^2 = 0.084$. The effect size was moderate to large; members of Greek-letter organizations continued to report higher career decision-making self-efficacy and goal directedness after controlling for the covariate of engagement (low, medium, or high). No main effect for gender was found, Wilk’s Lambda = 0.98, $F(3, 200) = 1.23$, $p < 0.299$, $\eta^2 = 0.018$. Univariate analyses further showed that the effects of group membership on career decision-making self-efficacy and goal instability were still significant after controlling for the effects of engagement on these outcome variables. However, vocational identity was not significant in this model, $F(1, 202) = 3.13$, $p < 0.078$, $\eta^2 = 0.015$.

A series of Tukey’s LSD were conducted at the 0.05 level. Post-hoc analyses showed that career decision-making self-efficacy and goal instability differed significantly among the three levels of engagement $F(2, 202) = 5.46$, $p < 0.005$ and, $F(2, 202) = 5.92$, $p < 0.003$ respectively. No significant difference was found for vocational identity, $F(2, 202) = 1.67$, $p < 0.190$. Students who reported a high level of engagement in their sororities or fraternities also demonstrated higher levels of career decision-making self-efficacy ($M = 103.2$, $SE = 0.367$) and lower levels of goal instability ($M = 50.4$, $SE = 0.781$) compared to students who had moderate ($M = 99.7$, $SE = 1.7$; $M = 46.8$, $SE = 1.11$) or small ($M = 92.8$, $SE = 4.3$; $M = 43.6$, $SE = 2.76$) levels of engagement directed towards their respective Greek-letter organization. Additionally, a series of
Tukey’s LSD found that gender did not significantly differ among the three levels of engagement, $F(2, 202) = 1.80, p < 0.167$.

These results partially supported the fifth hypothesis of the present study. While career decision-making self-efficacy and goal instability were significant in the model that controlled for level of engagement among Greek-life members, vocational identity was not found to be significant. Also, amount of engagement reported by participants in Greek-letter organizations did not significantly differ by gender.

**Additional Data Analyses**

The Occupational Alternatives Questionnaire (OAQ) was utilized as a measure of vocational certainty and career decidedness. The majority of participants in the present sample indicated that they had a first choice and were not considering any other options (N = 200, 45.9%) while only 8.7% (N = 38) indicated being undecided about their career choice. Approximately one third of participants (N = 152, 34.9%) reported having a first career choice and being satisfied with their options, and only 10.1% (N = 44) indicated having potential career options but no first choice.

Results from an analyses of variance (ANOVA) further found a significant main effect of group, $F(1, 430) = 3.73, p < 0.052, \eta^2 = 0.009$, but not for gender, $F(1, 430) = 0.189, p < 0.664, \eta^2 = 0.000$. These findings suggest that members of Greek-letter organizations ($M = 1.92, SD = 1.03$) are slightly more decided and certain of their career choices than non-Greek members ($M = 1.72, SD = 0.834$).

While not originally specified in the research questions or hypotheses, it was of interest to examine how scores on the five subscales of the Career Decision-Making Self-Efficacy—Short Form (CDMSE—SF) Scale differed between groups. Results from the multivariate
analyses of variance (MANOVA) showed a significant main effect for group, Wilk’s Lambda = 0.96, $F(5, 430) = 3.12, p<0.01, \eta^2 = 0.035$. Table 4.5 shows that the effect size was small to moderate. No significant main effect of gender or group X gender interaction was found.

Members of Greek-letter organizations were significantly more likely to report higher career decision-making self-efficacy in the areas of occupational information ($\eta^2 = 0.012$), goal selection ($\eta^2 = 0.013$), and career planning ($\eta^2 = 0.013$) when compared to their non-Greek counterparts. Self-appraisal and problem solving did not significantly differ between the two groups at the $p = 0.05$ level.

Table 4.5 Univariate Test Effects of Hypotheses by Group on Self-Efficacy Subscales

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>Greek Mean</th>
<th>Greek SD</th>
<th>Non-Greek Mean</th>
<th>Non-Greek SD</th>
<th>F</th>
<th>p</th>
<th>$\eta^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Appraisal</td>
<td>20.45</td>
<td>3.34</td>
<td>19.84</td>
<td>3.45</td>
<td>3.41</td>
<td>.065</td>
<td>.008</td>
</tr>
<tr>
<td>Occupational Info</td>
<td>20.68</td>
<td>3.53</td>
<td>19.91</td>
<td>3.52</td>
<td>5.102</td>
<td>.024</td>
<td>.012</td>
</tr>
<tr>
<td>Goal Selection</td>
<td>20.28</td>
<td>3.55</td>
<td>19.39</td>
<td>4.06</td>
<td>5.831</td>
<td>.016</td>
<td>.013</td>
</tr>
<tr>
<td>Planning</td>
<td>20.97</td>
<td>3.55</td>
<td>20.09</td>
<td>3.43</td>
<td>5.520</td>
<td>.019</td>
<td>.013</td>
</tr>
<tr>
<td>Problem Solving</td>
<td>19.41</td>
<td>3.78</td>
<td>19.22</td>
<td>3.7</td>
<td>0.266</td>
<td>.607</td>
<td>.001</td>
</tr>
</tbody>
</table>

The inclusion of GPA was also worthy of further attention because previous studies have suggested that members of Greek-letter organizations perform more poorly on measures of academic performance when compared to their non-Greek peers. Consistent with findings from previous studies, results (Table 4.6) from the one-way analyses of variance (ANOVA) showed that non-Greek members had a slightly higher grade point average ($M = 3.43, SD = 0.415$) in comparison to Greek members ($M = 3.38, SD = 0.384$). However, no statistically significant difference was found for GPA when comparing Greek participants to non-Greek participants, $F(1, 433) = 1.51, p<0.219, \eta^2 = 0.003$. In terms of gender, females ($M = 3.41, SE = 0.406$) scored higher than males ($M = 3.37, SE = 0.383$) across the sample.
Table 4.6 Comparisons of Greek and non-Greek on GPA

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Greek</th>
<th>Non-Greek</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
</tr>
<tr>
<td>GPA</td>
<td>3.38</td>
<td>.384</td>
<td>3.43</td>
</tr>
</tbody>
</table>

Multivariate analyses of covariance (MANCOVA) were also performed to explore whether cumulative grade point average moderated scores on the three outcome variables. A main effect of GPA was found, Wilk’s Lambda = 0.97, $F(3, 428) = 3.29$, $p<0.020$, $η^2 = 0.023$. This effect size was small, and members of Greek-letter organizations continued to report higher career decision-making self-efficacy and greater goal directedness after controlling for the covariate of GPA. No main effect for gender was found, Wilk’s Lambda = 0.99, $F(3, 428) = 0.142$, $p<0.935$, $η^2 = 0.001$. Univariate analyses further showed that the effects of group membership on career decision-making self-efficacy $F(1, 430) = 3.95$, $p<0.041$, $η^2 = 0.009$ and goal instability $F(1, 430) = 9.91$, $p<0.002$, $η^2 = 0.023$ were still significant after controlling for the effects of GPA on these outcome variables. Career decidedness and vocational certainty were also higher among students affiliated with Greek-letter organizations than in the non-Greek control group. However, vocational identity was not significant in this model, $F(1, 430) = 3.24$, $p<0.073$, $η^2 = 0.016$.

The final analysis focused on involvement in other on-campus organizations and employment experiences. Simple frequency calculations were performed and results found that 58% ($n = 134$) of non-Greek participants endorsed being current members of other school activities and clubs while 42% ($n = 97$) of non-Greek participants denied participation in other school organizations. Of members affiliated with Greek-letter organizations, only 10% ($n = 20$) indicated being solely involved in their respective chapters while the other 90% ($n = 185$) reported membership in one or more on-campus organizations in addition to their sorority or
fraternity. In terms of employment history, 93% of non-Greek participants and 94% of Greek participants endorsed working while completing their undergraduate degree.
CHAPTER 5
DISCUSSION

The present study examined how active membership in a Greek-letter organization influenced career development and related outcome variables among college seniors. More specifically, the purposes of this study were to identify how participating in a sorority or fraternity influenced students’ scores on vocational identity, career decision-making self-efficacy, and goal instability measures and how these scores compared to those of their non-Greek counterparts. Another goal was investigating the relationship between gender and the above outcome variables, as well as how level of engagement moderated their potential impact.

A quasi-experimental design was implemented in which the Vocational Identity (VI) Scale, Career Decision-Making Self-Efficacy—Short Form (CDMSE—SF), and Goal Instability Scale (GIS) were administered to all 436 participants in order to assess for level of vocational identity, confidence in making career decisions, and goal directedness, respectively. Additionally, the Revised Student Engagement Questionnaire was used with participants (N = 205) in Greek-letter organizations to determine whether level of engagement moderated any of the above relationships. To explore the three main research questions, multivariate analyses of variance (MANOVA) were conducted.

After providing a summary of findings in relation to each research question and relevant literature, the limitations of the study, its practical applications, and directions for future research are addressed. A general conclusion will also be presented.
Discussion of Findings

Research Question 1.

To answer the first research question of how membership in a Greek-letter organization impacted college students’ vocational identity level, career decision-making self-efficacy, and goal instability, a one-way MANOVA was conducted. Multiple hypotheses were postulated, and it was expected that members of Greek-letter organizations would report higher vocational identity, career-decision-making self-efficacy, and goal directedness relative to their non-Greek counterparts.

The first hypothesis for this research question were that members of Greek-letter organizations would report higher vocational identity levels than non-Greek members as measured by the total score on the Vocational Identity (VI) Scale. The current findings, in general, indicate that group membership impacted participants’ scores on the Vocational Identity (VI) Scale. Specifically, fraternity and sorority members ($M = 13.38$) showed significantly higher vocational identities when compared to the control group ($M = 11.87$). Results further showed that vocational identity explained 2.6% of the variance associated with being a Greek life member.

Chickering and Reisser’s (1993) theory of identity development fits well with this observation, as they noted that the establishment of an identity is related to involvement with student communities and other educational environment factors, such as college friendships and relationships with faculty members. Using Holland’s (1997) theoretical framework, it also seems that members of sororities and fraternities may clarify which environmental types (e.g., social) fit best with their personality type while participating on committees or actively contributing ideas during chapter meetings. Consistent with Astin’s (1985) theory of involvement, it is possible that
members of Greek-letter organizations experience greater gains in personal development and overall learning because of increased opportunities to interact and thus learn from others.

Previous research has consistently shown that internal and external information are used in the process of identity formation and that the sense of “self” cannot be separated from interactions in society and within the environment (Berzonsky, 2003; Keupp et al., 2006). Researchers further agree that individuals possessing a higher sense of vocational identity typically make more mature career decisions, have healthier coping strategies, and experience a clearer sense of personal goals and values (Holland, 1997; Holland, Daiger, & Power, 1980).

From a theoretical and empirical perspective, one potential explanation for the present findings relates to the fact that members of Greek-letter organizations have numerous opportunities for identifying interests, discovering personality preferences, and developing a sense of self through serving as officers, communicating with alumni, and performing philanthropic acts. The environment offered by Greek life communities also provides enhanced learning opportunities for experimenting with new behaviors, selected goals, and life roles (Bureau, Ryan, Ahren, Shoup, & Torres, 2010). For example, members must mediate disputes, plan charity fundraisers, compete in intramural Greek sports, volunteer at service events, and engage in decision-making processes when voting on new chapter policies and slating new positions. While conducting chapter meetings, sororities and fraternities teach business skills, such as negotiation and collaboration within an organizational hierarchy. Each of these experiences can allow members to clarify which types of environments (e.g., enterprising, social) fit best with their personality when making career choices (Holland, 1997). For example, one member serving as secretary may identity that his/her skills and interests align with the job description of an accountant while another member assigned to planning social functions may
confirm his/her goal to become a professional event coordinator. On the other hand, a member
serving on a committee or holding a leadership position may identify which occupational
aspirations (e.g., lawyer) are not congruent with personal interests and skills. It is possible that
students who participate in social organizations, such as sororities and fraternities, have
enhanced opportunities to explore their three-letter Holland code (which can be generated by the
Self-Directed Search) and could therefore develop a deeper understanding and awareness about
specific values, preferences, and employment options.

The second hypothesis of the first research question explored career decision-making
self-efficacy, as it plays a significant role in motivating an individual to execute a goal and
persist in completing tasks (Bandura, 2001). Additionally, self-efficacy in general is enhanced
through performance accomplishments, emotional arousal, social persuasion, and vicarious
learning (Bandura, 1982). Based on this information, it was hypothesized that members of
Greek-letter organizations would report higher career decision-making self-efficacy than non-
Greek members as measured by total score on the Career Decision-Making Self-Efficacy
Scale—Short Form (CDMSE—SF). According to the findings of the current study, members of
Greek-letter organizations ($M = 101.72$) had higher levels of career decision-making self-
efficacy in comparison to their non-Greek counterparts ($M = 98.48$). However, the strength of
association and the amount of variation explained by career decision-making self-efficacy was
small.

Social-cognitive career theories suggest that social environments and personal
characteristics interact to produce overt behavior (Lent, Brown, & Hackett, 1994). Performance
accomplishments, emotional arousal, social persuasion, and vicarious learning are the four
sources of information that can increase levels of self-efficacy (Bandura, 1982). Previous
researchers have also demonstrated a relationship between vocational identity and self-efficacy; Morgan and Ness (2003) found that a higher stage of identity development was associated with higher self-efficacy scores, and Gushue, Clarke, Pantzer, and Scanlan (2006) found that lower career decision-making self-efficacy scores was related to poor vocational identity development.

These results are consistent with results from previous research and include theoretical underpinnings; being a member of a Greek-letter organization likely provided experiential learning opportunities as well as avenues for making and attaining goals (e.g., becoming an officer, such as the chapter secretary). This can ultimately lead to higher self-efficacy levels for future career goals. It is also possible that the amount of social support received by individual members in the form of encouragement and persuasion contributed to career decision-making self-efficacy gains reported in the present study. Observing the behavior of other members before engaging in the task themselves provides another explanation for the current results; freshman pledges and underclassmen members attend meetings and watch the other officers and university delegates before trying to hold officer positions. Through systematic observation and vicarious learning, leadership is modeled and skills related to managing a budget, conducting meetings, speaking in public, and motivating others can develop. Performance accomplishments, such as winning Greek Week, building homecoming floats, and raising money for a philanthropy, as well as positive social persuasion given during recruitment and rush week, likely also enhance the career decision-making self-efficacy of its members. The combination of influences likely contributes to more thorough self and career exploration among its members. Receiving emotional support, consistent encouragement, and positive feedback from a “big brother” or “big sister,” or an upperclassman serving as a peer tutor, can also promote higher levels of self-efficacy among chapter members.
The third hypothesis and final sub-component of the third research question focused on goal instability, or the lack of mature values and life goals (Dennis, Phinney, & Chauteco, 2005). Specifically, it was hypothesized that members of Greek-letter organizations would report lower levels of goal instability than non-Greek members as measured by the total score on the Goal Instability Scale (GIS). Findings of the current study reveal that members of Greek-letter organizations (\(M = 48.35\)) had lower levels of goal instability and endorsed more goal directedness in comparison to their non-Greek counterparts (\(M = 44.40\)). Furthermore, goal instability accounted for the most variance among the three dependent variables.

Theories of motivation, and specifically Kohut’s (1984) personality model, support the notion that goal attainment provides a sense of self as well as increased motivation to achieve again in the future (Oishi, 2000). Actions directed towards accomplishing goals often provide a sense of self-knowledge and typically lead to higher levels of self-efficacy (Robbins & Patton, 1995).

Researchers have consistently found that goal instability is associated with more difficult college adjustment, disorientation, and confusion about the self (Castillas et al., 2006). The value of planning and goal setting is also important for fostering readiness and motivating overall career development behavior. Previous empirical findings indicate that accomplishing goals can provide a deeper sense of self-knowledge while those that lack a sense of self experience difficulty in setting ideals and personal goals (Oishi, 2000). A lack of direction and high goal instability often reflect lower levels of self-efficacy (Lese & Robbins, 1994). On the other hand, individuals who report higher self-efficacy often experience greater goal persistence and better academic performance when compared to their counterparts (Lent, Brown, & Larkin, 2004).
Active members of Greek-letter organizations have numerous opportunities to demonstrate goal commitment and to experience a greater sense of belonging and social connectedness, which is often associated with lower goal instability (Robbins et al., 1993). Based on the above theoretical framework and previous empirical findings, it seems that involvement in Greek life may foster goal stability and consequently better overall college adjustment. Due to numerous service activities, social functions, and chapter obligations (e.g., financial dues, curfew, attendance), sororities and fraternities often push members to learn better time management skills, encourage the development of scholastic achievement (e.g., peer tutoring, study hours, upperclassman academic counseling), and demonstrate how to create a realistic schedule. Additionally, goal commitment and motivation are necessary when voting on chapter policies, procedures, and new officers as well as when determining themes for future social events and functions.

Overall, findings for the three hypotheses of the first research question are consistent with results of the current literature; career variables and personality factors appear to jointly impact the influence of outcome variables (Savickas, Briddick, & Watkins, 2002). Similarly, this study supports the finding that social environments and engagement in non-academic activities plays a positive role in fostering a sense of identity coherence, as well as facilitating higher career decision-making self-efficacy and goal-setting behavior (Lent, 2005). Another explanation is that participants of this study had three years to vicariously learn through others and the opportunity to develop a sense of self through performing a variety of chapter tasks.

**Research Question 2**

The second research question of this study focused on gender differences among the three dependent variables. It was hypothesized that there would not be any significant differences on
the mean outcome scores of vocational identity, career decision-making self-efficacy, and goal instability by gender. A two-way MANOVA was used to better understand the relationship between the two independent variables (gender and group) and the three dependent variables (VI, CDMSE, and GIS).

An earlier review of the literature suggested that there were no significant differences in identity development status by gender (Hirschi, 2001; Isik, 2010; Streitmatter, 1993). Similarly, Holland’s (1997) RIASEC theory is consistent across gender, age, and culture. In terms of career decision-making self-efficacy, scores do not appear to be significantly influenced by gender among college students (Isik, 2010; Taylor & Popma, 1990; Luzzo, 1993). On the other hand, a review of the literature on goal instability indicated mixed findings for that variable. Research conducted by Santos (2003) showed no significant differences for gender when examining relationships between goal instability, self-esteem, and vocational identity, yet Bertoch (2010) found that females had lower levels of goal instability.

The multivariate analyses revealed insignificant differences between males and females in the current study. Results further indicated that across all three dependent variables, gender differences were relatively consistent. Collectively, males and females scored similarly in terms of vocational identity level, degree of career decision-making self-efficacy, and level of goal instability.

Generally, these findings are consistent with previous research examining gender differences. This suggests that participating in Greek-letter organizations can be beneficial for both males and females. This is likely because sororities and fraternities share similar characteristics, and by nature, provide their members with learning opportunities to facilitate self-efficacy and a clearer vocational identity. Leadership and social development also play
important roles in the missions of most Greek chapters, and thus it is no surprise that both genders reported more planning, self-direction, and energy directed towards executing goals.

**Research Question 3**

The final question considered in the current study was whether there would be statistically significant differences on the scores of vocational identity, career decision-making self-efficacy, and goal instability after controlling for amount of engagement level in Greek life participants. It was hypothesized that after adjusting for the covariate of engagement, the mean scores of each group would be significantly different from one another.

Analyses of the current study showed that while level of engagement moderated the tested relationships, members of Greek-letter organizations continued to report higher career decision-making self-efficacy and goal directedness. On the other hand, vocational identity was not significantly different after including the covariate of engagement. Consistent with previous research findings, higher levels of engagement are related to better adjustment and more positive outcomes. In this study, engagement related to more confidence, motivation, and overall goal orientation.

Astin (1999) suggested that student involvement includes the psychological and physical energy a student directs towards his or her academic experience. Participating in a Greek-letter organization is one way for students to invest their time during college. A review of the engagement literature further indicated that student engagement includes behavioral, cognitive, and emotional components and also demonstrates a link between time interacting with peers and positive student outcomes (Fredricks, Blumenfeld, & Paris, 2004; Kuh et al., 2006). Similarly, research on engagement and student outcomes suggested that engagement leads to higher academic performance, greater satisfaction, and better understanding. Hayek, Carini, O’Day, and
Kuh (2002) found that members of sororities and fraternities often show higher levels of engagement inside and outside of the classroom. In terms of career development, Lapan (2004) noted that student engagement is associated with increased productivity, better work performance, and higher levels of career planning behavior.

These results suggest that for students to receive the greatest benefits from participating in sororities or fraternities, they should strive to be actively engaged in their respective chapters and philanthropic partnerships. Additionally, time and effort extended towards interacting with their fellow fraternity brothers, sorority sisters, and/or alumni members may foster greater gains in overall career development behaviors. It also seems that a link between engagement, career variables, psychosocial development, and mental health exist. Taking into account theory and related empirical findings, the essence of Greek life leads to higher levels of vocational identity, greater career decision-making self-efficacy, and less goal instability when members are engaged within their chapters.

**Additional Results**

In terms of vocational certainty and career decidedness, members of Greek-letter organizations reported being slightly more certain \( (M = 1.92) \) about their options than non-Greek participants \( (M = 1.72) \). One explanation could be that members of sororities and fraternities have greater access to alumni and related career resources. For example, the alumni relations officer can connect current members who are choosing a major, searching for internships, or seeking employment with alumni who can discuss options, personal experiences, and career opportunities—ultimately fostering higher career certainty. Similarly, through leadership roles, these individuals may develop a better understanding of what environments match their personality types, thus making them more certain about future career options and paths.
While not included in the original research questions, multivariate analyses were also performed to assess how membership in Greek-letter organizations impacted the five subscales of the Career Decision-Making Self-Efficacy—Short Form (CDMSE—SF). Sorority and fraternity members scored significantly higher on three of the five subscales (i.e., occupational information, goal selection, and career planning) when compared to the non-Greek sample. However, no significant differences were observed for self-appraisal or problem-solving.

Bandura’s (1986) theory hypothesized that a reciprocal relationship existed between environmental influences, overt behavior, and personal characteristics. Based on this premise, the Career Decision-Making Self-Efficacy Scale (CDMSE) (Taylor & Betz, 1983) was developed to assess the level of confidence one has in his/her ability to perform career decision-making tasks associated with making vocational choices. Using this measure, Nasta (2007) found that the strongest predictor of career self-efficacy and confidence in attaining goals identified by college students was previous performance accomplishments. Additionally, previous research has not found gender differences among college students in this respect (Isik, 2010; Taylor & Popma, 1990; Luzzo, 1993).

The findings of the present study are not surprising given that members of Greek-letter organizations also scored higher on the career decision-making self-efficacy total score. For reasons similar to those noted above, participation in a fraternity or sorority provides opportunities for engagement in career planning behavior (e.g., attending career workshops, networking with alumni, discussing how to make decisions with other members), goal setting (e.g., fundraising for a philanthropic event), and occupational information acquisition (e.g., serving as an officer, attending special speaker meetings to understand what is involved in specific occupations). As a younger member, one can shadow students in leadership positions.
and receive consistent encouragement and support by other members. This process reinforces the belief that each person is valuable and that his/her opinions are equally important—ultimately allowing for a greater sense of career decision-making self-efficacy. Results may not have reached significance for self-appraisal and problem solving because all college students likely engage in consistent problem solving and self-appraisal behavior. Although there were no gender differences reported in this respect, it could be that the current sample size was limited and did not have enough male representation for an effect to reach statistical significance.

It was also of interest to explore the potential role of GPA in moderating the relationship between groups on the three main dependent variables examined. Results of the one-way ANOVA found that non-Greek members reported a slightly higher grade point average ($M = 3.43$) than members of Greek-letter organizations ($M = 3.38$). These findings indicate that non-Greek students performed slightly better on their academic coursework, and as previous research suggested, the differences became minimized over time. However, results did not reach statistical or practical significance. Additionally, career decision-making self-efficacy and goal instability remained significant after controlling for the covariate of GPA. Overall, sorority and fraternity members scored slightly below their non-Greek counterparts, yet from a holistic perspective, performed better on all other personal and career development outcome variables examined in this study (e.g., goal directedness).

Previous research has been mixed in terms of the impact of Greek life membership on academic performance; Whipple (1988) found that involvement in a sorority or fraternity during the first year of college negatively impacted cognitive development, and DeBard et al., (2006) showed that affiliation with a Greek-letter organization resulted in lower cumulative grade point averages. Other researchers have found that the adverse effects primarily occur during the first
semester of pledging with a Greek-letter organization and were minimized over time (Pascarella, Flowers, & Whitt, 2001). Likewise, DeBard et al. (2006) noted that members who join during their second semesters of college over-perform. One explanation for the present findings is that chapters provide sorority and fraternity members with academic support, whether in the form of peer tutoring, copies of old test files for practice, required study sign-in sheets, or probation from social functions when grade point averages are below a pre-determined cut-off score.

It is also important to note that the majority of Greek and non-Greek participants endorsed having some form of work experience while pursuing their academic degree. Likewise, slightly more than half of the control participants indicated being involved in an activity or organization on-campus. Therefore, it is possible that these experiences contributed to participants’ scores on measures of vocational identity, career decision-making self-efficacy, and goal instability used in the present study. For example, work experiences also provide an environmental context to identify values, interests, and skills. It was also difficult to control for and separate the influences of involvement in other on-campus organizations by control group participants. Overall, it seems that non-Greek and Greek students in the present sample were highly engaged and involved in activities that could foster positive career development outcomes.

Limitations of the Study

Several factors in the present study may limit the ability to generalize findings to the population as a whole and should be addressed. The following sub-sections describe key limitations that may impact the external and internal validity of the current study. It should also be noted that the current study did not provide a comprehensive focus or examination of all
criticisms noted in the literature concerning the Greek life system (e.g., higher drug use, risky sexual practices).

**Limitations in Sampling**

The first weakness is that results are specific to a single, large research university located in the southeast and may not extend or hold true for other institutions. Second, only college seniors (ages 19-25) were invited to complete the survey, and the participants in this study were predominantly Caucasian and female. As a result, the findings can only be applied to similar populations and attempts to generalize the results to underclassmen and beyond female students could be considered problematic (Pike, 2000). Conclusions may apply more strongly to members of sororities rather than fraternities, but it is important to note that because gender was included in the study as an independent variable, the issue was minimized. Participants of the present study also endorsed higher levels of engagement on the NSSE (2011) compared to the normative sample. Similarly, frequency, duration, and overall involvement in other activities and organizations on-campus as well as employment experiences were not controlled for and may have influenced the present findings. Based on Florida State University’s Greek Report (2012) published for the academic year of 2011-2012, the present sample had a higher cumulative grade point average (GPA; \( M = 3.41 \)) than the campus undergraduate average (\( M = 3.070 \)) and also the spring 2012 average for all Greek members (\( M = 3.092 \)). Similarly, participants in both groups reported a higher mean cumulative GPA (\( M = 3.41 \)) compared to senior students attending Florida State University (\( M = 3.11 \); personal communication, April 1, 2013). Consequently, the higher levels of vocational identity, career decision-making self-efficacy, and goal directedness observed in the present study could be attributed to higher intellectual and academic functioning in general rather than participation in a Greek-letter organization. Finally, socio-economic status
was not controlled for, and it is possible that non-Greek college students performed lower on the three dependent variables due to lower family incomes and not having adequate financial resources to participate in social organizations.

**Limitations in the Measures**

The outcome measures were based on self-reported data, and therefore, participants may have used different baselines depending on their prior history when answering questionnaire items (Pascarella, 2001). Additionally, the questionnaires were not counterbalanced and therefore it is possible that sequencing, fatigue, or practice effects confounded or created bias in the present results. The psychometric properties of the outcome measures implemented in the current study ranged from satisfactory to good (Nunnaly, 1978). While the coefficient alpha for the Revised Student Engagement Questionnaire was also above the 0.70 threshold for research purposes, it was not as strong as the other measures used in the present study, and it has never been used with Greek life populations. Until future researchers can replicate findings, it is recommended to interpret the current results of this measure with caution.

**Implications of the Study**

Despite its limitations, the present research has important implications for students interested in participating in the Greek life system, as well as for college administrators, faculty, and related staff working in higher education. For example, findings suggest that members involved in Greek-letter organizations have a firmer sense of self, show greater self-efficacy in making career decisions, and report greater goal-setting and planning behavior—ultimately facilitating positive adjustment and overall success. The following sub-sections discuss potential implications for theory, practice, and future research.
Implications for Theory

Advancing theory and revising current theoretical frameworks will become even more important as graduation rates and retention rates continue to decrease. As noted by Astin (1993), Pascarella (1985), and Kuh and his colleagues (2007), student engagement is a powerful driving force for overall student learning and positive cognitive, social, and personal development gains. Findings from the present study support the importance of the peer group and related social interactions as well as how learning extends beyond the academic classroom. On the other hand, illuminating career development behaviors and related outcomes in these engagement models may be helpful. Similarly, more information on goal setting and the construct of self-efficacy could be included to better explain student learning, academic performance, personal development, and overall mental health status.

Implications for Practice

The results from the current study support the value of Greek life communities in promoting the career development of their members. Findings suggest that there are significant benefits of membership in a Greek-letter organization. For example, individuals participating in sororities and fraternities scored higher on measures of vocational identity and career decision-making self-efficacy while simultaneously scoring lower on measures of goal instability. Given these results, presidents of Greek-letter organizations may consider devoting 10-15 minutes of monthly chapter meetings to discussing the importance of goal-setting, career exploration, and job planning. Likewise, chapter meetings could focus on identifying transferrable skills (e.g., negotiating, teamwork, time-management) and employability (e.g., secretary, philanthropy chair) skills. It becomes fruitful to engage in self-reflection and also to address the successful outcomes of events in order to enhance the self-efficacy of its members.
Career networking represents another benefit of Greek life membership and can be an excellent investment for the future, especially when members stay connected with alumni or talk about their leadership experiences when interviewing for potential jobs. Hosting a Greek networking night and a fashion show of what to wear for job interviews could further allow members to gain firsthand knowledge of respective fields while also gaining potential internship or job leads and related tips on how to succeed. Such an event may also provide members an opportunity to explore and examine whether their interests, values, skills, and employment preferences fit well within a potential career field.

Another key benefit of membership is the ability to interact in a social environment that further includes opportunities for socio-cultural discussions, participation in community service, and mentor connections. The Greek life community consists of students from a variety of backgrounds, with similar as well as diverse interests. In addition to feeling a sense of sisterhood or brotherhood, members have access to peer tutoring and frequently must complete chapter study hours—with the ultimate goal of promoting academic success. Alternatively, having a “big sister” or “big brother” major mentor could also be powerful in promoting the vocational identity and career decision-making self-efficacy of chapter members. In terms of other interventions, officers of Greek-letter organizations can assist members in transferring interests and chapter experiences to career goals and action plans. For example, chapters could have a “match to major” or “strategies for employment” night in which members connect leadership positions and acquired skills to specific occupations and employment settings.

Career counselors and academic advisors could consider encouraging students to become involved in student organizations on-campus, such as sororities and fraternities, because of enhanced opportunities for acquiring self-knowledge, self-efficacy, self-motivation, and other
career development skills that have the potential to foster a higher level of vocational identity. For example, participating in Greek life events, such as recruitment or rush, provide students an opportunity to talk about themselves, identify strengths, and interact with a diverse group of individuals. Similarly, counselors may explore how non-academic and socio-cultural contexts serve to promote activities for discovering new career roles (e.g., networking with alumni) and competencies (e.g., leadership through being an officer). Outreach and programming services could be directed to this population to support members’ vocational development and to ensure that other career needs are met. Other career service interventions may include the discussion of transferrable skills and the encouragement of using a portfolio (Garis & Dalton, 2007) as a tool for documenting experiences and skills learned that can further be applied following graduation. Hosting networking opportunities with Greek alumni or inviting these individuals to serve on mock and/or interview panels may facilitate internship opportunities or provide insight on how skills developed through membership in a Greek-letter organization can be transferred and applied to job positions following graduation. Career programs on topics related to civic engagement, leadership transition, and job interviewing may be provided to members of Greek-letter organizations for them to receive the greatest benefits.

Administrators, faculty members, and other educators could consider implementing policies to nurture the overall Greek life community or possibly show more understanding and acceptance of members participating in Greek-letter organizations. For example, one policy may require all Greek-letter organizations to have an advisor that works closely with the chapter and university as a whole, and also actively participates in chapter affairs. Advisors could further serve as consultants and resource individuals for helping each chapter achieve specified goals and purposes while also ensuring compliance with overall university policies. Universities and
colleges can reinforce the fraternal ideals by showing an appreciation of the traditions, beliefs, and underlying principles of Greek-letter organizations through hosting Greek recognition and award ceremonies. Policies could also be created to limit the number of academic exams given during recruitment and rush week.

Astin’s (1993) theory and related empirical findings suggest that out-of-class experiences, especially when integrated with other learning events, generate gains in general cognitive abilities and promote positive career development outcomes. Similarly, it is important for student affairs personnel to work collaboratively to promote awareness on-campus, and in the community, about the potential benefits of being in a sorority or fraternity. Staff and administrators working directly in the Office of Greek Life may also want to regularly communicate the missions, values, and overall purposes of these social organizations to their members so that such members are more connected to their fellow members and develop a higher sense of organizational identity. It may also be beneficial to encourage Greek delegate retreats that can provide training on skills related to self-knowledge, occupational knowledge, generic information processing, goal stability, listening, motivation, and public speaking. Subsequently, officers can relay this information to their respective chapter members. Establishing a national and local Greek leadership training program would further help members understand and apply skills and experiences to vocational aspirations. Professionals working within student affairs also have the responsibility of supporting, demonstrating, assessing, evaluating, and reporting gains in student learning achieved through participation in certain organizations, such as sororities and fraternities (Dungy, 2009).
Implications for Future Research

Based on the review of the literature and the current findings, this research study represents only the beginning of what could be explored and examined in future studies. For example, conducting a similar study using Greek graduate students or alumni who are working professionals, or implementing a longitudinal study to see if/how scores on vocational identity, career decision-making self-efficacy, or goal instability measures change over time, is worthy of further examination. Although the current study demonstrated a positive link between being a member of a Greek-letter organization and one’s overall career development, future researchers should consider extending the present findings of how these three variables contribute to the ultimate goals of higher education (e.g., promoting effective leaders, responsible citizens, and critical thinking) later on in participants’ lives.

Future research may also explore similarities and differences among other college student organizations that provide leadership experience, opportunities for engagement, and/or close relationships to better understand the mechanism for producing such positive outcomes and to identify which factors contribute to overall student gains. Likewise, it would be beneficial to explore how implementing a bi-annual Greek retreat on topics related to career development, planning, and decision-making might further influence vocational identity level, degree of career decision-making self-efficacy, and level of goal instability among members.

To improve the design and methodology, future studies may consider including an additional control group based on college students who participate in Greek life but do not live in a fraternity or sorority house. For example, do members of Greek-letter organizations continue to score higher on career development outcomes even when proximity decreases? Alternatively, it would be interesting to explore the impact of involvement in honor Greek societies (e.g., Phi
Beta Kappa) and how such involvement influences vocational identity, career decision-making self-efficacy, and goal instability. Using counterbalancing procedures and matching parent education or socio-economic status levels would also be beneficial. Similarly, it is critical that work experience and engagement or involvement in other on-campus organizations (e.g., frequency, duration) is controlled for in order to reduce potential confounds and experimental bias. It could also be important to replicate findings using qualitative data collection procedures to gain a deeper or richer understanding of how participation in Greek life has impacted the sense of self, confidence in making decisions, and ability to execute goals.

Future researchers could validate the Revised Student Engagement Questionnaire on other Greek life populations. Similarly, performing exploratory factor analyses could investigate theoretical constructs, assess the quality of items, and better determine the overall factor structure of this measure (Preacher & MacCallum, 2003). Other researchers may consider analyzing item #16 on the Vocational Identity Scale because of its screening and diagnostic value for identifying mental health and treatment concerns (e.g., depression; Lenz, Peterson, Reardon, & Saunders, 2010). Another gap to explore is how current findings compare to individuals involved in Greek-letter organizations at smaller and/or private institutions.

Other gaps in the literature and variables to examine include withdrawing from a Greek-letter organization; it would be interesting to interview participants who became inactive or terminated from their respective sororities or fraternities in order to obtain a more comprehensive perspective. This information could also be used to enhance overall membership experience—ultimately fostering better personal, social, academic, and career development as well as overall student success. Addressing the gender gap is another area worthy of further attention; having an equal gender representation would increase the validity of the results and also provide
information on which career interventions would be most valuable to the governing bodies of Greek-letter organizations, such as the National Interfraternity Council and National Panhellenic Conference. Controlling for parent employment, degree attainment, and socio-economic status would enable future findings to be viewed from a social class, privilege, and power lens. Research using these variables could further explore how inequities in access to social organizations and related programs or services impact academic progress, psychological health, and the overall career development of college students. (Langhout, Drake, & Rosselli, 2009).

**Conclusions**

Greek life students represent a unique yet underrepresented population examined in research across college campuses. The value of the Greek-life system is still being discovered, yet findings from this study suggest that it can be a powerful vehicle for enhancing the career development of college students (Pike, 2000), particularly in the areas of vocational identity, career decision-making self-efficacy, and goal instability. Greek life also provides opportunities for interacting with peers, obtaining leadership positions, and understanding more about the self. Additionally, results support Astin’s (1993) assertion that student involvement extends beyond the classroom, affects learning, and enhances overall development.

Values of sororities and fraternities appear to match more closely the values and goals supported by higher education institutions, such as providing enriched learning opportunities, positive social interactions, and overall diverse experiences. It also seems that more thoughtful integration between members and administrators, faculty, and staff on-campus may enhance the overall development of the institution’s students. From a theoretical and empirical perspective, it is clear that Greek-letter organizations have a purpose for remaining on college campuses and that they matter when it comes to contributing to career and related student development.
outcomes. The more important question to ask is how current members, alumni, educators, and administrators can work together to enhance the delivery of Greek life programs and assist in transferring student learning and related skills developed through these communities to professional and related vocational settings.
APPENDIX A

INSTITUTIONAL REVIEW BOARD APPROVAL

Human Subjects Application - For Full IRB and Expedited Exempt Review

PI Name: Mary-Catherine Elizabeth McClain
Project Title: The Impact of Greek Life Membership on Vocational Identity, Career Self-Efficacy, and Goal Instability of College Students
Date: 5-24-2012

HSC Number: 2012.8310

Your application has been reviewed by office staff and will be transmitted to Committee members for review.

RENEWAL NOTIFICATION

Date of Notice: 3/16/2013

To: Mary-Catherine McClain

From: Human Subjects Committee

Re: Renewal of Project Entitled: The Impact of Greek Life Membership on Vocational Identity, Career Self-Efficacy, and Goal Instability of College Students

This is to advise you that your approval for use of human subjects in the above-referenced research project will expire on 06/14/2013. No research involving human subjects may be conducted after that date unless re-approval is granted by the Human Subjects Committee.

In order to be re-approved to continue your research, you must complete and submit the Request for Renewal Form online (http://humansubjects.research.fsu.edu). See http://www.research.fsu.edu/humansubjects/meetings/index.html for meeting dates and deadlines. If you do not wish to continue your project, or if your study has been completed and continuation is not necessary, please indicate on the renewal form.

If no response is received to this notice by 06/14/2013 a formal termination will be issued to you, your major professor and/or department chair (whichever is applicable).

If you have any questions, please do not hesitate to contact Julie Haltiwanger, Secretary to Human Subjects Committee at jth5898@fsu.edu
APPENDIX B

DEMOGRAPHIC QUESTIONNAIRE

Instructions: Please fill out the following information about yourself. For Questions 3-9, place the NUMBER in the space in the right margin where indicated.

1. Major (print major or “undecided”):
   ________________________________________________________________________________

2. Age (in years) ............................................................................................................................ 2. __________

3. Academic Status (write in number) ........................................................................................... 3. __________
   1. Full-time
   2. Part-time (enrolled in less than 12 hours)

4. Cumulative Grade Point Average…………………………………………………………   4. __________

5. Sex (write in number) ................................................................................................................ 5. __________
   1. Male
   2. Female

6. Ethnicity (write in number) ....................................................................................................... 6. _________
   1. American Indian or Alaska Native  5. Hispanic/Latino
   4. Hawaiian Native or Other Pacific Islander  8. Prefer Not to Respond
   9. Other

7. Are you a member of a social sorority of fraternity? ……………………………………… 7. _________
   1. Yes
   2. No

8. Does your social sorority or fraternity have a house on-campus? ……………………..8. __________
   1. Yes
   2. No

9. Have you ever been a member of a social sorority or fraternity, but dropped out? 9. __________
   1. Yes
   2. No

10. List up to 3 on-campus organizations (e.g., Student Ambassador; Accounting Society) you’re a member of:
    ________________________________________________________________________________

11. List current and/or previous employment or work experience.______________________________
    ________________________________________________________________________________

12. List all the occupations you are considering right now.
    ____________________     ____________________     ____________________
    ____________________     ____________________     ____________________

13. Which occupation is your first choice? (If undecided, write “undecided.”) ____________________
APPENDIX C

INFORMED CONSENT

This is a copy of the cover letter that accompanied the online, electronic survey to non-Greek students.

Dear Student:

My name is Mary-Catherine McClain and I am a current doctoral candidate majoring in Counseling Psychology and School Psychology at Florida State University. As part of my dissertation, I need your help! Specifically, I am conducting a research study to examine the influence of attending college on senior students' vocational identity, career decision-making self-efficacy, and goal instability.

You were randomly selected through the Office of the University Registrar because you are a college senior attending Florida State University. While your participation is completely voluntary, I am inviting you to complete my online survey. The online survey includes a demographic questionnaire and 4 different electronic-based assessments about personal and career characteristics. Completion of these forms should take 20-30 minutes. I would greatly appreciate your participation in this survey. If you agree to participate, please carefully read this entire form and visit the link below.

Information obtained from the study will remain confidential, to the extent allowed by law. Your responses to the consent, demographic, and questionnaires will not be disclosed to the public and will only be seen by the principal investigator/faculty advisers. Data collected for this study will be retained in a secure manner until August 1, 2019, after which time it will be destroyed. The results of the research study may be published, but your name will not be used and will only be presented in a group format. No identifying information will be asked, and you will not be offered individual feedback regarding the assessment you choose to take today.

Your participation in this study is voluntary. You will not be paid for your participation. Also, you have the opportunity to refuse to participate or withdraw at any time while completing survey items, with no penalty. The discomfort and risk reasonably expected by your participation in this project is that you may become more aware of personal characteristics that relate to career decision making self-efficacy. This awareness may cause mild anxiety. If you experience such a reaction after participating in this study, please contact FSU’s Career Center (850-644-6431) or the University Counseling Center (850-644-2003) to discuss your situation.

Although there may be no direct benefit to you, a possible benefit is having the opportunity to explore how your experience as a student at Florida State has impacted your vocational identity and self-efficacy. Furthermore, information can be used to help other students and for developing effective interventions. This information also has the potential to improve the ability of
counselors and advisors to address issues that may interfere with career problem solving and decision making.

If you have any questions concerning this research study, please contact Mary-Catherine McClain or Jim Sampson, Ph.D., at (850) 644-6885. If you have any questions about your rights as a participant in this research, or if you feel you have been placed at risk, please contact the Chair of the Human Subjects Committee, Institutional Review Board, or the Vice President for the Office of Research at (850) 644-8633.

Finally, if you decide to participate, click on the link below and you will be directed to the three online questionnaires. However, if you choose not to participate, please discard this email and don’t open the link. Also, if you choose or feel the need to discontinue working on the survey at any point, please stop working on the questionnaires and exit out of the survey system. You may also leave questions blank if you do not feel comfortable responding to their content.

ONLINE PARTICIPATION LINK: ______________________________________

These questionnaires will be available from 8-15-2012 to 11-15-2012. Completion of this survey will be considered your consent to participate and indication that you fully understood the information presented. Thank you for considering this opportunity, as your feedback will be highly valuable, and I hope that you will participate!

Sincerely,
Mary-Catherine McClain, Ed.S., M.S.
Principal Investigator and Doctoral Candidate

This is a copy of the cover letter that will accompany the online, electronic survey to Greek life students.

Dear Student:

My name is Mary-Catherine McClain, and I am a current doctoral candidate majoring in Counseling Psychology and School Psychology at Florida State University. As part of my dissertation, I need your help! Specifically, I am conducting a research study to examine the influence of attending college on senior students’ vocational identity, career decision-making self-efficacy, and goal instability.

You were randomly selected through the Office of Greek Life because you are an active member of a Greek-letter organization and also because you are a senior student at Florida State University. While your participation is completely voluntary, I am inviting you to complete my online survey. The online survey includes a demographic questionnaire and 3 different electronic-based assessments about personal and career characteristics. Completion of these forms should take 20-30 minutes. I would greatly appreciate your participation in this survey. If you agree to participate, please carefully read this entire form and visit the link below.
Information obtained from the study will remain confidential, to the extent allowed by law. Your responses to the consent, demographic, and questionnaires will not be disclosed to the public and will only be seen by the principal investigator/faculty advisers. Data collected for this study will be retained in a secure manner until August 1, 2019, after which time it will be destroyed. The results of the research study may be published, but your name will not be used and will only be presented in a group format. No identifying information will be asked and you will not be offered individual feedback regarding the assessment you choose to take today.

Your participation in this study is voluntary. You will not be paid for your participation. Also, you have the opportunity to refuse to participate or withdraw at any time while completing survey items, with no penalty. The discomfort and risk reasonably expected by your participation in this project is that you may become more aware of personal characteristics that relate to career decision making self-efficacy. This awareness may cause mild anxiety. If you experience such a reaction after participating in this study, please contact FSU’s Career Center (850-644-6431) or the University Counseling Center (850-644-2003) to discuss your situation.

Although there may be no direct benefit to you, a possible benefit is having the opportunity to explore how your experience as a student at Florida State has impacted your vocational identity and self-efficacy. Furthermore, information can be used to help other students and for developing effective interventions. This information also has the potential to improve the ability of counselors and advisors to address issues that may interfere with career problem solving and decision making.

If you have any questions concerning this research study, please contact Mary-Catherine McClain or Jim Sampson, Ph.D., at (850) 644-6885. If you have any questions about your rights as a participant in this research, or if you feel you have been placed at risk, please contact the Chair of the Human Subjects Committee, Institutional Review Board, or the Vice President for the Office of Research at (850) 644-8633.

Finally, if you decide to participate, click on the link below and you will be directed to the three online questionnaires. However, if you choose not to participate, please discard this email and don’t open the link. Also, if you choose or feel the need to discontinue working on the survey at any point, please stop working on the questionnaires and exit out of the survey system. You may also leave questions blank if you do not feel comfortable responding to their content.  

**ONLINE PARTICIPATION LINK: ______________________________________**

These questionnaires will be available from 8-15-2012 to 11-15-2012. Completion of this survey will be considered your consent to participate and indication that you fully understood the information presented. Thank you for considering this opportunity, as your feedback will be highly valuable, and I hope that you will participate!

Sincerely,

Mary-Catherine McClain, Ed.S., M.S.
Principal Investigator and Doctoral Candidate
APPENDIX D

MY VOCATIONAL SITUATIONS (MVS) SCALE

Directions: Try to answer all the following statements as mostly TRUE or mostly FALSE. Circle the answer that best represents your present opinion.

In thinking about your present job or in planning for an occupation or a career:

1. I need reassurance that I have made the right choice of occupation.   T F
2. I am confused about the whole problem of deciding on a career.    T F
3. I am uncertain about the occupations I could perform well.     T F
4. I don't know what my major strengths and weaknesses are.      T F
5. The jobs I can do may not pay enough to live the kind of life I want.  T F
6. If I had to make an occupational choice right now, I am afraid I would make a bad choice. T F
7. I need to find out what kind of career I should follow.          T F
8. Making up my mind about a career has been a long and difficult problem for me. T F
9. I am confused about the whole problem of deciding on a career.   T F
10. I am not sure that my present occupational choice or job is right for me.  T F
11. I don't know enough about what workers do in various occupations. T F
12. No single occupation appeals strongly to me.                    T F
13. I am uncertain about what occupations I would enjoy.           T F
14. I would like to increase the number of occupations I could consider. T F
15. My estimates of my abilities and talents vary a lot from year to year. T F
16. I am not sure of myself in many areas of life.                  T F
17. I have known what occupation I want to follow for less than one year. T F
18. I can't understand how some people can be so set about what they want to do. T F
APPENDIX E

CAREER DECISION-MAKING SELF-EFFICACY SCALE (CDMSE—SHORT FORM)

For each statement below, please read carefully and indicate how much confidence you have that you could accomplish each of these tasks by marking your answer according to the key.

The confidence levels are valued in the following manner:

1 – No Confidence at all
2 – Very Little Confidence
3 – Moderate Confidence
4 – Much Confidence
5 – Complete Confidence

HOW MUCH CONFIDENCE DO YOU HAVE THAT YOU COULD:

1. Find information in the library or on the Internet about occupations you are interested in.
2. Select one major from a list of potential majors that you are considering.
3. Make a list of your goals for the next five years.
4. Determine the steps to take if you are having academic difficulties in your chosen major.
5. Accurately assess your strengths and weaknesses.
6. Select one occupation from a list of potential occupations that you are considering.
7. Determine the steps you need to take to successfully complete your chosen major.
8. Persistently work at your major or career goal even when you get frustrated.
9. Determine what your ideal job would be.
10. Find out employment trends for an occupation over the next ten years.
11. Choose a career that will fit your preferred lifestyle.
12. Prepare a good resume.
13. Change majors if you did not like your first choice.

HOW MUCH CONFIDENCE DO YOU HAVE THAT YOU COULD:

15. Find out the average yearly earnings of people working in a specific occupation of your interest.
16. Make a career decision and then not worry whether it was right or wrong.
17. Change occupations if you are not satisfied with the one you enter.
18. Figure out what you want to sacrifice to achieve your career goals.
19. Talk with a person already employed in the field you are interested in.
20. Choose a major or career that will fit your interests.
21. Identify employers, firms, and institutions relevant to your career possibilities.
22. Define the type of lifestyle you would like to live.
23. Find information about graduate or professional schools.
24. Successfully manage the job interview process.
25. Identify some reasonable major or career alternatives if you are unable to get your first choice.
APPENDIX F

GOAL INSTABILITY SCALE

Directions: Following are a number of statements that reflect various ways in which we can describe ourselves. After reading each statement, one at a time, circle a number along the scale which ranges from 1, Strongly Agree, to 6, Strongly Disagree. There are no right or wrong answers, so please just make your best judgment. Simply try to rate the extent to which you agree with each statement. Do not spend too much time with any one statement. Circle the number which best fits for each statement and do not leave any unanswered.

Please Circle A Number For Each Statement, Along:

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Moderately Agree</th>
<th>Slightly Agree</th>
<th>Slightly Disagree</th>
<th>Moderately Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

1. It’s hard to find a reason for working. 
   Agree: 1 2 3 4 
   Disagree: 5 6

2. I don’t seem to make decisions by myself. 
   Agree: 1 2 3 4 
   Disagree: 5 6

3. I have confusion about who I am. 
   Agree: 1 2 3 4 
   Disagree: 5 6

4. I have more ideas than energy. 
   Agree: 1 2 3 4 
   Disagree: 5 6

5. I lose my sense of direction. 
   Agree: 1 2 3 4 
   Disagree: 5 6

6. It’s easier for me to start than to finish projects. 
   Agree: 1 2 3 4 
   Disagree: 5 6

7. I don’t seem to get going on anything important. 
   Agree: 1 2 3 4 
   Disagree: 5 6

8. I wonder where my life is headed. 
   Agree: 1 2 3 4 
   Disagree: 5 6

9. I don’t seem to have the drive to get my work done. 
   Agree: 1 2 3 4 
   Disagree: 5 6

10. After a while I lose sight of my goals. 
    Agree: 1 2 3 4 
    Disagree: 5 6
APPENDIX G

GREEK LIFE ENGAGEMENT QUESTIONNAIRE*

For each statement below, please indicate how much the following behaviors, feelings, and thoughts describe you while you have been a member of a Greek-letter organization during college:

5—Very Frequently  4—Frequently  3—Occasionally  2—Rarely  1—Never

1. _____ How frequently did you serve on a committee?
2. _____ How frequently did you hold an officer position?
3. _____ How frequently did you attend chapter meetings?
4. _____ How frequently did you participate in Greek week events?
5. _____ How frequently did you eat at your sorority/fraternity house?
6. _____ How frequently did you buy Greek clothing?
7. _____ How frequently did you attend social functions?
8. _____ How frequently did you wear member badges?
9. _____ How frequently did you miss chapter meetings?
10. ____ How frequently did you participate during recruitment/rush week?
11. ____ How frequently did you visit the campus career center?
12. ____ How frequently did you interact with Greek alumni?

5—Strongly Agree  4—Agree  3—Undecided  2—Disagree  1—Strongly Disagree

1. _____ Listened carefully to chapter announcements
2. _____ Thought about chapter discussions in between meetings
3. _____ Became bored easily during Greek functions
4. _____ Established a sense of pride
5. _____ Felt a sense of belonging
6. _____ Became more mature
7. _____ Experienced loneliness when living in the house
8. _____ Developed deeper self-knowledge
9. _____ Made close friends
10. ____ Considered your experiences a waste of time
11. ____ Considered your experiences a waste of money
12. ____ Developed a desire to stay involved in Greek life after graduation

APPENDIX H

DEBRIEFING FORM

The Impact of Greek Life Membership on Vocational Identity, Career Self-Efficacy, and Goal Instability of College Students Enrolled in a University

Greek-letter organizations have the potential to promote academic performance, social interaction, and positive career behaviors through leadership opportunities, alumni connections, risk management meetings, and philanthropy events. For example, social interaction often influences identity development (Erikson, 1974; Chickering & Reisser, 1993). Similarly, the relationship between an individual's interests and personality characteristics and a corresponding career choice is congruent with principles related to vocational theory and practice (Super, 1957; Holland & Lutz, 1968). Living in a house with other fraternity men or sorority women also provides individuals with the opportunity to develop professional and “soft” skills that may not be taught or discussed in classroom settings. However, little research exists regarding the experience of Greek life membership on students' career development.

Since minimal importance has been placed on the career development and vocational identity development of students affiliated with Greek-letter organizations, the specific purpose of the present study was to examine how active membership in a sorority or fraternity impacts students' vocational identity, career self-efficacy, and levels of goal instability. Therefore, groups of students actively involved in sororities and fraternities were included as well as groups who do not have an affiliation with a Greek-letter organization. The questionnaires you answered included items to measure strength of vocational identity, career decision-making self-efficacy, and levels of goal instability. Consequently, scores between groups (Greek life students versus non-Greek life students) on each administered assessment were also compared.

It is difficult to answer these types of research questions, and your generosity and willingness to participate in the present study are truly appreciated. Furthermore, your input will significantly contribute to advancing the student affairs and professional counseling fields regarding the career development of college students. Findings may further inform staff about how experiences in Greek life, one important component of many college environments, can enhance self-knowledge, expand occupational knowledge, and foster constructive learning experiences.

Finally, I ask that you maintain confidentiality about the purpose of the current study since other senior students are still completing the survey and because pre-knowledge or awareness of the study could result in biased data or invalid results. If you have any questions, concerns, or complaints about the present research, please feel free to contact Ms. Mary-Catherine McClain, a doctoral candidate at Florida State University, by phone or email. Alternatively, you may contact Dr. James Sampson, Ph.D.

Thank you again for participating and completing the questionnaires of the current study!

Best of luck this semester, Mary-Catherine McClain
REFERENCES


Yoder, E. P. (2002). *Basic multivariate analysis of variance*, The Pennsylvania State University at State College, USA.

BIOGRAPHICAL SKETCH

Mary-Catherine McClain was born and raised in Anderson, South Carolina. She has a twin brother who graduated from the Medical University of South Carolina in 2012. Upon graduation from T.L. Hanna High School in 2004, she attended Wofford College and obtained a Bachelor of Science in Psychology with a minor in Sociology. While at Wofford College, Mary-Catherine became a member of the Delta Delta Delta sorority and held several leadership positions. Similarly, she served as a resident assistant and played an active role in the student government. In May 2010, Mary-Catherine earned her Master’s and Specialist’s degrees in Mental Health Counseling at the Florida State University in Tallahassee, Florida.

Mary-Catherine is currently a doctoral candidate in the combined doctoral program in Counseling Psychology and School Psychology at The Florida State University. This program is American Psychological Association (APA) accredited. During her graduate study, Mary-Catherine has gained breadth of experience across diverse clinical populations; whether from working at the FSU Counseling Center, Employee Assistance Program, Adult Learning Evaluation Center, Student Disability Resource Center, Swift Creek Middle School, Behavioral Health Center at Tallahassee Memorial Hospital, or FSU Career Center, she has gained experience serving college students, providing crisis intervention, administering assessments, and writing comprehensive psychological reports. Similarly, she has had the opportunity to be a lead instructor, supervise other graduate trainees, participate in research projects, and conduct numerous outreach workshop programs.

Most recently, Mary-Catherine will complete a pre-doctoral internship at Johns Hopkins University during the 2013-2014 academic year. After completing a post-doctoral position, Mary-Catherine’s long-term goal is to become a licensed psychologist providing counseling
services, teaching students, and conducting research within a college counselor center. Mary-Catherine is most passionate about the college student population, and although she has had the opportunity to work with different populations across a variety of settings, she is most interested in providing services to individuals presenting with anxiety, ADHD, addictions, and career difficulties. Other clinical interests include group therapy, motivational interviewing, and supervision of others in professional training.