The Transition from College to Employment: Relationships Among Career Preparation, Values, Career Identity, Career Decideness, Self-Esteem, and Subjective Well-Being

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THE TRANSITION FROM COLLEGE TO EMPLOYMENT: RELATIONSHIPS AMONG CAREER PREPARATION, VALUES, CAREER IDENTITY, CAREER DECIDEDNESS, SELF-ESTEEM, AND SUBJECTIVE WELL-BEING

A THESIS SUBMITTED TO
THE FACULTY OF THE GRADUATE SCHOOL
IN CANDIDACY FOR THE DEGREE OF
MASTER OF ARTS

DEPARTMENT OF PSYCHOLOGY

BY

BRADLEY R. FULTON

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ABSTRACT

Higher education is an important part of modern society. One reason for its importance is that it is believed to provide the tools to construct a satisfying life. An important factor in constructing a satisfying life is developing a satisfying career. People often assume higher education will prepare them for employment. Studying the transition from college to employment is important, then, in understanding the dynamics of constructing a satisfying life. Prior research and theory suggest that relationships among career preparation, values, career and academic identity, career decidedness, self-esteem, and subjective well-being are important in studying this transition. A convenience sample of 192 college students ranging from freshmen to seniors completed a questionnaire measuring these variables. A preliminary implication of the findings is that to develop a strong self-esteem and positive sense of subjective well-being students need to begin preparing for and deciding upon a career while focusing on their academics.
CHAPTER 1
INTRODUCTION

Higher education has received a great deal of attention from researchers with diverse concerns. Researchers have studied everything from changes in attitudes and self-perceptions during the first two years of college (Loeb & Magee, 1992), to student attrition while in college (Tinto, 1993), to variables affecting college seniors' expectations about returning home (Pats, 1987). This attention reveals the perceived importance of higher education in many modern societies. One aspect of this perceived importance is the ability of higher education to provide the tools to construct a more satisfying life. An important factor in constructing a more satisfying life is to develop a more satisfying career. The association of life satisfaction and career satisfaction is supported by a theory proposed by Super (as cited in McDaniels & Gysbers, 1992) which suggests that work satisfaction and life satisfaction depend on the degree to which outlets are found for abilities, needs, values, interests, personality traits, and self-concepts. This idea is also consistent with current definitions of career which will be discussed later.

During their stay in, and upon graduating from, institutions of higher education, many individuals engage in the process of searching for a personally satisfying career. Whether justified or not, one assumption that people often make is that higher education will prepare them for employment. Because of this, and because of the importance placed on education in many societies, students' expectations regarding their success in finding personally satisfying careers may be high. Due to their high expectations,
students might be quite vulnerable to actual or perceived failure when they venture into the job market. Thus, an area of research that could be valuable is the study of the transition from higher education to employment. The results of this type of research could be used to help students better understand this transition and become more successful at developing personally satisfying careers and thus more personally satisfying lives.

Wirth (1992)—a philosopher of education—suggests that there is currently a struggle between the scientific tradition in industry and schools, and the need to join values from the democratic tradition with technology to deal with the turbulence of the electronic era. He states that in the 1990's society is moving away from a factory type industrialism to a computer-driven post-industrialism, and that the scientific efficiency value tradition—marked by its bureaucracy and hierarchical control, and in which thinking and authority are reserved for the experts—is no longer functional for coping with the challenges of the electronic era. He suggests that a more democratic style of leadership, with more participative values, would be better during this transition into the computer era, and that this transition has many implications for the design of jobs and education. He later provides evidence that in America's industries and schools, democratic values are getting more attention due to the breakdown of centralized styles of control.

Although Wirth (1992) continues to explore these two value systems in terms of employment and education, the main point of interest for this paper is that as society changes, what was compatible with the state of society in the past in regards to the value traditions in employment and educational settings may not be compatible now. This means that individuals need to be aware of the state of society, and how the educational and employment settings with which they are affiliated, function within it. A greater awareness will allow individuals to make better career and lifestyle choices. It is,
therefore, essential to develop a system to help college students better understand the
current status of the value traditions in education and employment, and how these values
fit with their own personal values. If we develop a method for educating young people
about these value traditions, they will be better prepared for the transition from college to
employment. If they are better prepared for it, they will be more successful in their
career endeavors, and in general more satisfied with their lives.

Values

To educate people about the current status of the value traditions in education and
employment, and about their own values, those values must be studied. To do this, an
appropriate definition must be decided upon. One appropriate definition of values can be
borrowed from role theory. According to Shaw and Costanzo (1982), an evaluation is
declared as an "expression of approval or disapproval toward the role behavior of oneself
or another" (p. 301). Shaw and Costanzo later reviewed a distinction made by Biddle and
Thomas (1966) between overt and covert evaluations. Overt evaluations were referred to
as assessments. Covert evaluations, internalized assessments of others held to evaluate
one's own behavior, were referred to by Shaw and Costanzo as values. These values
carry behavioral prescriptions. That is, they make specific behaviors evident to the
person. This definition is particularly useful in understanding that others influence how
we evaluate our own behavior.

Rokeach (1968) defined values somewhat differently. He defined a value as "an
enduring belief that a specific mode of conduct or end-state of existence is personally and
socially preferable to alternative modes of conduct or end-states of existence" (p. 160).
This is useful in that it distinguishes between values as modes of conduct and values as
end-states of existence. Examples of values as modes of conduct include being
imaginative, independent, and ambitious. Examples of values as end-states of existence
include an exciting life, freedom, and social recognition. It is important to distinguish
between these two since when one chooses a career, one is really choosing a lifestyle. By choosing a career, one is not merely choosing a role that carries with it certain modes of conduct, but is also choosing a role that carries with it end-states of existence. This reflects the impact of choosing a career on the entire lifestyle. That is, when one chooses a career, although one can stop behaving according to that role--for instance while at home--one will regardless experience the long term outcomes of behaving according to that role. This definition also seems to imply what the role theory definition states definitively. That is, the term "socially preferable" implies that there is some social reason based on the evaluations of others that some value is preferable over alternative values.

The Career

To study the transition from education to employment, it is also important to construct an appropriate definition of career. This concept has been the focus of much debate. Arthur, Hall, and Lawrence (1989) defined career as the evolving sequence of a person's work experience over time.

McDaniels and Gysbers (1992) emphasize that the construct of career has moved beyond the narrow occupational definition, to include the whole lifestyle of the individual as reflected in the above definition. Choosing a career is choosing a lifestyle. Thus, career counseling should concentrate not only on the fit between the individual and the occupation, but on the entire lifestyle, and how career decisions influence the individual's entire life. Based on this theorizing then, it seems quite appropriate to study the values important to an individual, and to study how these values match the individual's perception of the values typically held at a potential employment setting. This will help to expose the individual's thoughts on the lifestyle--not just career--that is being chosen, and the individual's expectations on how one might need to change one's current value structure to accommodate a chosen lifestyle. Although it is also important
to study the actual match between the individual and the career being chosen, and not just the individual's perceptions of this match, that will not be the focus here. Understanding the values important to an individual, and how these values match the individual's perception of the values typically held at a potential employment setting will also be important to counseling centers. This will aid counselors in understanding how they can help the student successfully navigate through this transition from school to work.

Early in their book, McDaniels and Gysbers (1992) provide a framework for the process of counseling for career development which reflects the above ideas. What is missing, however, is a step in the framework that addresses individuals' thoughts about their careers before the counseling. Some may be unaware or may be denying that they will need to make a decision in regards to their career. It follows that they might not be considering career counseling at this time. When they do realize that they need to make a career choice, they may no longer have access to the services provided at their college or university. So, again, it seems of utmost importance to develop a system designed to make individuals aware of possible problems stemming from the transition between college and employment, and to make them aware of activities such as career counseling that can lessen the extent of the problems with this transition.

Prior Research

The change in self-construction during this transition was precisely the topic of a recent study. Fournier and Payne (1994) conceptualized self construction in terms of three components: self-image, core identity, and self-esteem. Self-image was also referred to as the self as an element, which refers to the idea that the self is "an element in the context of personal constructs . . . (e.g., at what point one is on the construct 'successful-unsucccessful')" (p. 300). Core identity refers to the self as a system of constructs. Some constructs are more important to the construction of the self than are
others. Those that are central are called core constructs. These core constructs form the core identity. Self-esteem is the evaluative component, the value-perceived goodness or badness of one's attributes—that we attach to ourselves.

One finding from Fournier and Payne's (1994) study suggested that change takes place in both self-image and core identity, and that this change stressed the importance of individual differences rather than a socialization process in the nature of change experienced. This finding suggests that help in regards to the transition between school and employment needs to be provided on a more individualized level.

Fournier and Payne (1994) also found that role-meaningfulness—the degree to which graduates' roles provide autonomy, challenge and responsibility—was positively associated with an increase in self-esteem. However, the initial level of self-esteem was not found to moderate the relationship between role-meaningfulness and the subsequent level of self-esteem. This suggests that regardless of self-esteem, individuals have high expectations regarding employment after college, and that if these expectations are not met, their self-esteem will suffer.

Also, changes in the nature of self construction revealed the first six months of employment as a period during which graduates adjust their self construction and orientation toward their career. This suggests that, before graduation, individuals might not be aware of the effects of the transition on the self, and thus might not be obtaining the career counseling that they need. And since in the first finding it was suggested that this career counseling is important due to the nature of the change experienced, it is vital to develop a method of creating an awareness of the need to be prepared for this transition and possibly to seek career counseling.

This last finding also has support from theorists of the career theory orientation. In a book reviewing much of the research involved with this theory, Nicholson and West
(1989) showed how the literature indicates that it is not the transition itself that is stressful, but that post-change disillusionment is a common experience.

It seems there are four possibilities in regards to the transition. First, it could be that individuals who are graduating are unaware that the transition from college to employment will have an impact on their lives. Second, it could be that they are denying the fact. Third, they could be aware of the situation, but not acting upon their awareness. Fourth, they could be aware and acting upon that awareness. It is important, then, to discover whether the students are unaware, in denial, aware but inactive, or aware and active so that students can be made aware or motivated to face the transition in a timely manner so that they are prepared when it occurs.

Dalton (1989) suggests that finding a job is a crucial step in the establishment of the self. It seems to follow then that failing at gaining good employment might be quite harmful to the development of the self. In attempting to avoid this possibility of failure and this post-change disillusionment there are, it seems, at least three routes that graduating students embark upon: (1) staying in college longer, (2) denying or avoiding thoughts about graduation, e.g. by over-exerting socially and/or academically, and (3) going to graduate or professional school. In regards to the latter, it does not necessarily hold true that everyone going to graduate or professional school is attempting to repress or avoid this transition, but some probably are; it is the easiest transition from school to employment. The value systems of the undergraduate and graduate or professional school environments are similar, and so few values need to be challenged during the transition. Thus the old self construction remains intact, yet students still gain access to profitable, successful employment. It should be noted that those considering graduate or professional school are a self-selected group of those who have been successful in their undergraduate careers. However, it is precisely for this reason that those people may be going to graduate school to avoid a major transition. Those people may have a very
strong academic identity which they wish to keep intact. By attending graduate school they can connect or even replace their career identity with their academic identity.

Bloor and Brook (1993) defined career maturity, in general, as the degree of planning a person is engaged in, and referred to career decidedness as the clarity of career direction or the level of clarity of an occupational choice. They attempted to assess (1) the extent to which career maturity is related to career decidedness, and (2) the extent to which career decidedness is related to subjective well-being and personality variables such as self-esteem. In general it was found that certain aspects of career maturity, career identity making the biggest contribution, was related to the clarity of career direction, and that this clarity was related to certain aspects of personal adjustment.

The Fournier and Payne (1994) study suggests a number of ideas. First, it suggests that change does take place in the self as a consequence of the transition from college to employment. Second, people will experience the change differently. This suggests that it would be beneficial for people to explore their own unique situation. It also suggests that expectations in regards to employment are high, and if these expectations are not met, people will suffer in regards to self-esteem. Bloor and Brook (1993) suggest that it is important to have a sense of identity in terms of one's career and to be clear about one's career direction, and that career direction has an impact on personal adjustment. In sum, this means that it is important to develop a system to make individuals aware of possible problems stemming from the transition between college and employment, and to make them aware of what can be done to lessen the extent of these problems. This will reduce or at least make individuals prepared for post-change disillusionment, reduce the amount of avoidance of career preparation that occurs, and increase students' successfulness at meeting their own expectations.
Conceptual Framework

Bloor and Brook (1993) set much of the groundwork for the proposed research. Many of the same constructs will be used; however, some new ones will be introduced.

![Conceptual Framework Diagram]

Fig. 1. Conceptual Framework.

In the center of the above flowchart are the values that are important to individuals, as well as individuals' perceptions of how important each value would be if they were ideal...
candidates for their first-choice career (or for post-college employment in general, if undecided) and if they were ideal students. These values are at the center to reflect their importance to this study, and they are connected to show that they belong to a single individual and are connected in that individual's mind.

The chart shows that there are likely to be discrepancies between individuals' ideal value perceptions and those actually important to them. These reflect the differences that individuals see between their actual selves, and themselves as ideal students or ideal employees. For the remainder of the paper, discrepancies between the values currently important to the student and the importance of those values if the student were an ideal candidate of the student's first choice career, or for post-college employment in general if undecided, will be referred to as career discrepancies. Also, discrepancies between the values currently important to the student and the importance of those values if the student were an ideal student will be referred to as academic discrepancies. There are also discrepancies between the ideal value perceptions important to an ideal career candidate and an ideal student. All of these discrepancies are influenced by the student's engagement in educational career and graduate school preparation activities. An activity is educational if it has the ability to teach the student about values and roles of people in the student's first choice career or in graduate school.

For example, if students were working as interns, they would learn about values important to people working in that field. This learning is reflected in a reduction in the discrepancies between actual values important to an ideal candidate of that career and their perception of them. Thus, their perceptions become more accurate. Since it is their perceptions that will shift in this learning process, their career discrepancies will also change. As these students engage in more and more educational activities, their career discrepancies should lessen. That is, they will learn how to be closer to their perceptions of the ideal. This is a reflection of a change in (1) their perception of the importance of
each value if the students were ideal candidates, (2) the values important to them, or (3) what the students consider their first choice career. Since these students are getting closer to their ideal, their certainty regarding their career choice will strengthen, and they will begin to identify with that career. If these students did not engage in these activities, their career discrepancies would remain, and they would not be as sure of themselves in terms of their career. Thus, the students' career discrepancies will influence their career identity. Also note that there is a similar process occurring in regards to their academic identity. That is, if the above students engaged in educational activities related to preparing for graduate school, their values would move closer to the perceived values of the ideal student.

If individuals are uncertain about the career with which they wish to identify, they will not be as certain about their first choice career or any of their career choices. This lack of career identity should influence their career decidedness. If they are not decided on a career, their self-esteem and subjective well-being will suffer. The last two statements reflect the findings of Bloor and Brook (1993) that career identity, the most influential part of career maturity, influences career decidedness, and that career decidedness influences both self-esteem and subjective well-being. This lack of decidedness on a career also means that students probably will not engage in as many constructive career preparation activities. They are constructive if they allow the individual to develop or formally establish themselves within their career. That is, constructive activities are the hoops that one needs to jump through to establish oneself within a career. It should be noted that an activity can be both educational and constructive. For example an internship is necessary in that it gives one the experience which is a prerequisite for many jobs, yet it also teaches one about the roles one will play in that career. Interestingly, the entire process outlined in the conceptual framework relies on engagement in educational career preparation activities.
Individuals who have not begun this process of learning about which career, or lifestyle, would be best for them by engaging in these activities may only have a vague notion of the ideal candidate they should be to obtain a post-college job. Any career choice they make at that point is likely to be premature. If they would have begun the process of learning about which career would best fit them they could have eliminated much of the post-change disillusionment that follows. Although the study of post-change disillusionment is beyond the scope of the present project, current levels of self-esteem and well-being will be examined as correlates of career preparation and decidedness.

It should be noted that individuals' academic identities also have an influence on their career decidedness. This reflects the prior discussion about graduate school. If individuals have very strong academic identities, they may choose to go to graduate school. By doing this they may in essence be choosing a career. So by choosing to continue on in some field in graduate school, they are choosing that as a career rather than other possibilities. Thus their academic identities are influencing their career decidedness. In a sense their academic identities can become connected with or can even replace their career identities. That is, their academics become their careers. And so career decidedness in these circumstances should also influence their engagement in constructive graduate school preparation activities. Note that this applies to people planning to go to graduate/professional school but not to those with other plans.

Finally, the reader should note that the connections in this flowchart are only a subgroup of the total possible. For instance, it is possible that career value discrepancies will influence career decidedness directly and not just via career identity. The connections shown, however, are of primary interest in this study.
Hypotheses

The hypotheses examined are:

- Individuals with higher levels of career decidedness will exhibit higher levels of self-esteem, subjective well-being, engagement in constructive career and graduate school preparation activities, career identity, and academic identity than those with lower levels of career decidedness.

- Individuals with smaller discrepancies between the values important to them and the importance of those values if the student were an ideal candidate for his/her first choice career (or for post-college employment in general, if undecided) will display higher levels of career identity than those with larger discrepancies.

- Individuals with smaller discrepancies between the values important to them and the importance of those values if the student were an ideal student will display higher levels of both academic identity and career identity than those with larger discrepancies.

- Individuals who have engaged in higher levels of educational career preparation activities will have smaller discrepancies between the values important to them and the importance of those values if the student were an ideal candidate for his/her first choice career (or for post-college employment in general, if undecided) than those who have engaged in lesser levels of these activities.

- Individuals who have engaged in higher levels of educational graduate school preparation activities will have smaller discrepancies between the values important to them and the importance of those values if the student were an ideal student than those who have engaged in lesser levels of these activities.
CHAPTER 2
METHODOLOGY

Participants

The participants consisted of undergraduate students at Loyola University in Chicago. It was determined prior to data collection that approximately 200 participants were needed to provide enough power for the various statistical procedures. This was determined based on procedures described in Stevens (1992).

Measures

Self-esteem. The Rosenberg Self-Esteem scale (RSE; Rosenberg, 1965) was used to measure self-esteem (see Wylie, 1989 for discussion of this scale). It consists of ten questions all rated on a four-point scale ranging from strongly agree to strongly disagree.

Subjective well-being was measured using three scales: the Satisfaction With Life Scale (SWLS; Pavot & Diener, 1993) and both the Positive Affect scale (PAS) and Negative Affect scale (NAS; Watson, Clark, & Tellegen, 1988). Pavot and Diener identified two aspects of subjective well-being: affect (broken down into positive and negative affect) and cognition. They stated that the SWLS, which measures the cognitive aspect, should be used as a complement to scales that focus on emotional well-being. The PAS and NAS are measures of positive and negative affect, and so are good complements to the SWLS.

It is important to note that Watson et al. stated that positive and negative affect should not be seen as opposites, but that they are distinctive dimensions, meaningfully represented in factor analytic studies. It is also important to note that self-reports are not likely to give a complete picture of an individual's emotional life (Diener, 1994).
However, the measures being used cover a broad portion of subjective well-being and should be adequate for this study's purposes. The SWLS contains five items all scored on a seven-point scale. The PAS and NAS each contain 10 items and are scored on a five-point scale.

**Career decidedness.** The questionnaire used by Bloor and Brook (1993) as it was adapted from the Occupational Alternatives Question (Zener and Schunelle, 1972) was used to measure career decidedness. It was altered from the original to make certain that individuals who are relatively clear about their career plans could be distinguished from those who (a) lack a clear preference, or (b) are uncommitted. These three groups--decided, undecided, and avoider--were used by Bloor and Brook and will be used in this study.

**Career identity.** The My Vocational Situation instrument (MVS; Holland, Daiger, & Power, 1980) contains three scales. The first, used by Bloor and Brook (1993), is the Vocational Identity scale. This scale identifies whether or not an individual has a clear/stable picture of his/her goals, interests, personality, and talents. The scale contains 18, dichotomously scored, true-false questions. The second is a four item Occupational Information scale, with dichotomously scored true-false questions. This scale measures the need for occupational information. The third is a four item Barriers scale, with dichotomously scored true-false questions. This scale is a measure of personal limits or environmental problems in regards to an individual's career. Selected items from the Vocational Identity scale, along with the items from the other two scales and three items constructed by the author were combined to form the measure of career identity.

**Academic identity** was measured using the General-School scale of the Self Description Questionnaire III (SDQIII; Marsh & O'Neill, 1984). For validity and reliability information see Wylie (1989). This scale contains 11 true-false questions that are not scored dichotomously but rather along an eight-point scale.
Values. To measure values, two different altered versions of Rokeach's Value Survey were used (Rokeach, 1967). Of the 36 values in Rokeach's Value survey, 30 were used in both of the altered versions. For version I, the participants rated how similar they believe themselves to be to the ideal student in regards to the importance of each of the values using a five-point scale. This same five-point scale was used in version II, where the participants rated how similar they believe themselves to be to the ideal candidate for their first choice career (or post-college employment in general, if undecided) in regards to the importance of each of the values. The sum of the items in version I comprised the measure of academic values discrepancies while the sum of the items in version II comprised the measure of career values discrepancies. A high score means less discrepancy or more similarity.

Engagement in career and graduate school preparation activities were measured via self-report. The questions were structured to maximize recall. As suggested by Ajzen and Fishbein (1980), self-reports of behavior are inadequate if there are strong reasons to suspect their accuracy. In the current study, the information sought should be easily recalled due to the importance of the topic to the participants and the structuring of the questions, and so there is not a strong reason to suspect their accuracy. Also, there may be a temptation to produce socially desirable responses to these questions. In the current study, appearing socially desirable would require the individual to lie on many of the questions and/or answer questions that would otherwise be skipped. That is, it would require some effort to appear socially desirable but would be much easier to simply not answer some or all of the questions. For this reason, this problem should be minimal.

Demographics. Information was collected in regards to the students' date of birth, ethnic background, attendance at Loyola, attendance at other colleges or universities besides Loyola, and their academic major.
Procedure

The questionnaire (see Appendix A) and a cover letter/consent form (see Appendix B) were distributed in two ways to obtain a set of respondents with a wide range of college experience. First, as many participants as possible were obtained through the Introduction to Psychology subject pool, which contains mainly first year students. The remaining participants were obtained through an additional method. These additional participants, likely to have more college experience, were recruited either through upper-division courses, or simply through personal contact. Participants were obtained either during the second semester of one year or during the first part of the first semester of the following year. Participants at all levels of college experience, first year students to fourth year students and beyond, were surveyed at both time periods. This helped balance effects due to time of year.

Two versions of the questionnaire were constructed. The first version began with questions pertaining to self-esteem and subjective well-being and followed with questions pertaining to academic and career identity. The second version began with questions pertaining to academic and career identity and followed with questions pertaining to self-esteem and subjective well-being. Both finished with questions pertaining to preparation activities, values and demographics. These two versions were used to determine the effects of answering questions pertaining to the more global constructs of self-esteem and subjective well-being prior to answering those pertaining to the more narrow constructs of academic and career identity, and vice versa.

A number of sessions were required to obtain all of the data. The sessions ranged in size from small groups of two or three students to classes of 40 to 50 students. The two versions of the questionnaire were randomly distributed to the students, half receiving one version and half the other. The questionnaire was self-administered, after a brief introduction and distribution of the cover letter/consent form, and required 15 to 20
minutes to complete. After all of the participants completed the questionnaire, each received a debriefing form (see Appendix C). Each session required approximately 30 minutes.
CHAPTER 3

RESULTS

Before presenting the results, a brief outline will be provided. This section focuses first on the demographics of the participants, including differences in career decidedness due to academic major and year in school, and then turns to the reliability of the scales, differences in the scales due to version of the questionnaire, and differences in the scale scores due to academic major, ethnicity, and year in school. Correlations between the major constructs are presented next.

Prior to discussing analyses regarding career and graduate school preparation activities, this section focuses on problems with the analyses of these activities, the factor analysis of these activities, and differences in these activities by academic major, ethnicity, and year in school. The remainder of the chapter, in general, follows the flow of the conceptual framework in Figure 1.

The prediction of career and academic values discrepancies by career and graduate school preparation activities is next, followed by the prediction of career and academic identity by these activities. The focus then turns to the prediction of career and academic identity by career and academic values discrepancies, and in turn, the prediction of satisfaction with life, self-esteem, positive affect, and negative affect by career and academic identity. Last is a discussion of the categorization of participants by career decidedness, and of the differences among those categories of students in selected career and graduate school preparation activities, academic identity, career identity, self-esteem, negative affect, positive affect, and satisfaction with life.
Demographics

Data were collected from 192 participants. Of these, 120 (62.5%) were White, 7 (3.6%) were African-American, 15 (7.8%) were Hispanic, 42 (21.9%) were Asian-American (including Indian-American--ancestry from the subcontinent of India), 7 (3.6%) reported other ethnic backgrounds, and 1 (.5%) was missing. The Indian-American and Asian-American participants were combined given that some Indian-American participants reported being Asian-American. Implications of this distribution will be discussed later.

The largest category of academic major was psychology with 84 participants (43.8%), and an additional 20 (10.4%) psychology double majors. Nursing was the next largest category with 31 participants (16.1%). There were 31 different majors reported in total, and 24 (12.5%) of the participants reported a second major. A chi-square was calculated to determine differences between psychology majors (n=83; not including psychology double majors), nursing majors (n=30) and other majors (n=76) in terms of levels of career decidedness. This was done to determine any impact it might have on other analyses. No significant differences were detected, $\chi^2(8, N = 189) = 3.745, p = .879$.

Last, 27 (14.1%) of the participants were in their first year, 64 (33.3%) were in their second year, 47 (24.5%) were in their third year, 34 (17.7%) were in their fourth year, 13 (6.8%) were in their fifth year, and 5 (2.6%) were beyond their fifth year. A number of participants, 56 (29.2%), had attended another college for at least one semester. A chi-square was calculated to determine differences in career decidedness between first (n=27), second (n=62), third (n=46) and fourth year students (n=34), and students beyond their fourth year (n=18). This was done to determine any impact it might have on other analyses. Significant differences were detected, $\chi^2(16, N = 187) = 38.243, p = .001$. Table 13 in Appendix D shows the observed and expected counts of
the crosstab of these variables. Percentages of students in some career decidedness categories varied with year in school. Implications of this will be discussed later.

**Internal-Consistency Reliability**

Before being used in the analyses each of the scales was tested for internal-consistency using Cronbach’s alpha, except the MVS scales for which Kuder-Richardson 20 (KR20) was computed. The need for information scale of the MVS was adequately reliable (.76), however the barriers scale of the MVS did not prove to be reliable (.35). After eliminating four items (8, 9, 11, and 13), the Vocational identity scale of the MVS was adequate (.82). A reliability was also calculated for the Vocational identity scale items not eliminated in the previous analysis, together with the need for information scale and barriers scale items. After eliminating three of the four barriers scale items, this produced a reliability score of .85, higher than any of the scales alone. This final scale, called Career Identity, was used in the analyses. Note that the statements on this scale refer mostly to certainty about readiness to select a career. It is not parallel to the academic identity scale which consists of statements about how good people are in school and how much they like school.

A reliability was also computed for the academic values discrepancies scale and the career values discrepancies scale. In both scales, all items remained in the scales except for salvation and social recognition. After dropping these two items the reliabilities were .94 for both scales.

Finally, reliabilities were computed for the general-school scale of the SDQIII—measuring academic identity, the RSE, the NAS, the PAS, and the SWLS. All of these scales remained intact. The reliabilities were, respectively: .87, .88, .88, .90, and .89.
Scale Score Differences by Version of the Questionnaire, Academic Major, Ethnicity, and Year in School.

A multivariate analysis of variance (MANOVA) was conducted to determine differences between the two versions of the questionnaire (version 1, n = 87; version 2, n = 90) in regards to the general-school scale of the SDQIII (measuring academic identity), the RSE, the NAS, the PAS, the SWLS, the newly created career identity scale, the academic discrepancies scale and the career discrepancies scale. This analysis was conducted to determine the effects of answering questions pertaining to the more global constructs of self-esteem and subjective well-being prior to answering those pertaining to the more narrow constructs of academic and career identity, and vice versa. No significance was detected, Wilks' Lambda $F(8, 168) = .946$, $p = .481$.

The following analyses were conducted to reveal differences in the respondents in terms of the scale scores that might affect or help to explain the results of further analyses. A MANOVA was conducted to examine differences between psychology majors (n = 96; includes those having a second major) and other majors (n = 80) in regards to the general-school scale of the SDQIII (measuring academic identity), the RSE, the NAS, the PAS, the SWLS, the newly created career identity scale, the academic discrepancies scale and the career discrepancies scale. No significance was detected, Wilks' Lambda $F(8, 167) = .760$, $p = .639$.

A MANOVA was conducted to determine differences between white participants (n = 112) and minorities (n = 64) in regards to the same variables. No significance was detected, Wilks' Lambda $F(8, 167) = 1.032$, $p = .414$.

A MANOVA was conducted to determine differences between first (n = 27), second (n = 61), third (n = 43), and fourth year students (n = 28), and students beyond their fourth year (n = 17) in regards to the same variables. Significance was detected, Wilks' Lambda $F(32, 606.40) = 1.770$, $p = .006$. Univariate significance was found on the
PAS $F(4, 171) = 4.042, p = .004$; the academic identity scale $F(4, 171) = 3.401, p = .010$; and the career identity scale $F(4, 171) = 3.600, p = .008$. Post Hoc analyses using Tukey's HSD identified which means were significantly different (see Table 1). This shows that first year students have weaker academic identities than fourth year students. The means of second, 65.70 (SD = 10.41), third 66.26 (SD = 11.89) and fifth year students 71.17 (SD = 9.37) clearly show that academic identity grows stronger as years in school increase. Although the mean of fifth year students was greater than that of fourth year students, suggesting a significant difference with first year students, the low number fifth year students masked this significance. Note that Tukey's HSD was unable to detect differences in means in regards to PAS and the career identity scale, even though univariate significance was detected. However, inspection of the means suggests the same trend as academic identity. The means and standard deviations of these two variables by year in school can be found in Table 14 in Appendix D.

Table 1
Post Hoc Analyses for Differences in PAS, Academic Identity and Career Identity by Year in School

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Year A</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Year B</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>g**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Identity</td>
<td>1</td>
<td>62.41</td>
<td>9.69</td>
<td>4</td>
<td>70.44</td>
<td>11.77</td>
<td>&lt;.05</td>
</tr>
</tbody>
</table>

**Exact g's were not obtained for this analyses due to the nature of the statistical package.
Correlations Among the Constructs

In Figure 2, correlations marked by a dotted line are not significant, those followed by an asterisk are significant at $p < .05$, and the remaining are significant at $p < .01$. These correlations will provide a general understanding of the relationship of these variables prior to more in depth analysis. The high correlation between career and academic values discrepancies should be noted. This suggests there is much overlap in what they are measuring. Also note that these constructs have only moderate correlations with self-esteem, satisfaction with life, negative affect and positive affect as compared to the correlations between career and academic identity and the same variables.

Fig. 2. Correlations between career and academic values discrepancies, career and academic identity, self-esteem, satisfaction with life, negative affect, and positive affect.
Problems with the Analyses of Career and Graduate School Preparation Activities

Many problems were found in regards to the preparation activities. In terms of the MANOVAs: the distributions of the activities were non-normal—all of the activities were highly skewed and highly kurtic; and the covariance matrices were found to lack equality. This was due to the scarcity of engagement in these activities, an important finding itself. These are major violations of assumptions of the MANOVA. In terms of the multiple regressions: there was a lack of homoscedasticity of the error variances (non-constant error variances); and there were low correlations between the predictors and the dependent variable, and for the most part relatively high correlations among the activities—indicating multicolinearity problems. Due to the many problems, and the intensity of these problems, transformations of the data would be futile. For these reasons, all findings in regards to these activities should be considered preliminary.

Factor Analysis of Career and Graduate School Preparation Activities

A confirmatory factor analysis was conducted on the career preparation and graduate school preparation activities to confirm the existence of underlying constructive and educational career and graduate school preparation activities constructs. This analysis failed to confirm the existence of any of these constructs. For this reason, the activities were used in the analyses individually.

Differences in Career and Graduate School Preparation Activities by Academic Major, Ethnicity and Year in School

The following analyses were conducted to reveal differences in the respondents in terms of career and graduate school preparation activities that might affect or help to explain the results of further analyses. A MANOVA was conducted to determine differences between psychology majors (n = 92; includes those having a second major) and other majors (n = 81) in regards to career preparation activities. No significance was detected, Wilks' Lambda $F(12, 160) = 1.023, \ p = .430$. A second MANOVA was
conducted to determine differences between psychology majors (n = 100; includes those having a second major) and other majors (n = 87) in regards to graduate school preparation activities. No significance was detected, Wilks' Lambda $F(9, 177) = 1.780$, $p = .075$.

A MANOVA was conducted to determine differences between White participants (n = 114) and other groups (n = 59) in regards to career preparation activities. No significance was detected, Wilks' Lambda $F(12, 160) = .828$, $p = .622$. A second MANOVA was conducted to determine differences between White participants (n = 120) and others (n = 67) in regards to graduate school preparation activities. No significance was detected, Wilks' Lambda $F(9, 177) = .809$, $p = .608$.

A MANOVA was conducted to determine differences among first (n = 22), second (n = 58), third (n = 42), and fourth year students (n = 34), and students beyond their fourth year (n = 17) in regards to career preparation activities. Significance was detected, Wilks' Lambda $F(48, 606.82) = 1.592$, $p = .008$. Univariate significance was detected for 5 of the 12 activities including: browsing the internet, $F(4, 168) = 5.669$, $p < .0005$; engaging in extra-curricular reading/research, $F(4, 168) = 3.293$, $p = .013$; talking to faculty/staff, $F(4, 168) = 5.420$, $p < .0005$; talking to potential employers $F(4, 168) = 3.415$, $p = .010$; and mailing letters to potential employees $F(4, 168) = 2.493$, $p = .045$. Table 2 presents a summary of the post hoc analyses using Tukey's HSD. This shows, in general, an increase in the engagement of the indicated activities as the number of years in school increases.
Table 2

Post Hoc Analyses for Differences in Career Preparation Activities by Year in School*

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Year A Mean</th>
<th>Standard Deviation</th>
<th>Year B Mean</th>
<th>Standard Deviation</th>
<th>p**</th>
</tr>
</thead>
<tbody>
<tr>
<td>browsing the internet</td>
<td>1</td>
<td>-.17</td>
<td>4</td>
<td>.62</td>
<td>1.83</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>-.26</td>
<td>4</td>
<td>.62</td>
<td>1.83</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>-.14</td>
<td>4</td>
<td>.62</td>
<td>1.83</td>
</tr>
<tr>
<td>engaging in extra-curricular reading/research</td>
<td>2</td>
<td>-.34</td>
<td>5</td>
<td>.46</td>
<td>1.18</td>
</tr>
<tr>
<td>talking to faculty/staff</td>
<td>1</td>
<td>-.08</td>
<td>5</td>
<td>.73</td>
<td>1.86</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>-.36</td>
<td>5</td>
<td>.73</td>
<td>1.86</td>
</tr>
<tr>
<td>talking to potential employers</td>
<td>1</td>
<td>-.17</td>
<td>5</td>
<td>.75</td>
<td>2.85</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>-.19</td>
<td>5</td>
<td>.75</td>
<td>2.85</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>-.04</td>
<td>5</td>
<td>.75</td>
<td>2.85</td>
</tr>
<tr>
<td>mailing letters to potential employers</td>
<td>2</td>
<td>-.14</td>
<td>5</td>
<td>.60</td>
<td>2.76</td>
</tr>
</tbody>
</table>

Notes: *When interpreting the means and standard deviations, it is important to keep in mind that the data were standardized for ease of comparison between the activities.
**Exact p's were not obtained for this analyses due to the nature of the statistical package.

A MANOVA was conducted to determine differences between first (n = 26), second (n = 63), third (n = 46), and fourth year students (n = 34), and students beyond their fourth year (n = 18) in regards to graduate school preparation activities. Significance was detected, Wilks' Lambda $F(36, 653.80) = 1.892, p = .001$. Univariate significance was detected for 6 of the 9 activities including: graduate school applications, $F(4, 182) = 5.258, p < .0005$; talking to graduate school officials, $F(4, 182) = 4.589, p = .001$; browsing the internet, $F(4, 182) = 5.564, p < .0005$; talking to other
important people, $F(4, 182) = 3.549, p = .008$; engaging in extra-curricular
reading/research, $F(4, 182) = 6.086, p < .0005$; and talking to faculty/staff, $F(4, 182) = 6.049, p < .0005$. Table 3 presents a summary of the post hoc analyses using Tukey's HSD. This shows that fourth year students are engaging in the indicated activities much more than other, primarily first and second year, students.

Table 3

Post Hoc Analyses for Differences in Graduate School Preparation Activities by Year in School*

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Year A</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Year B</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>$p^{**}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graduate school applications</td>
<td>1</td>
<td>-.19</td>
<td>&lt;.00</td>
<td>4</td>
<td>.56</td>
<td>1.97</td>
<td>&lt;.05</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>-.19</td>
<td>&lt;.00</td>
<td>4</td>
<td>.56</td>
<td>1.97</td>
<td>&lt;.05</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>-.18</td>
<td>.10</td>
<td>4</td>
<td>.56</td>
<td>1.97</td>
<td>&lt;.05</td>
</tr>
<tr>
<td>Talking to graduate school officials</td>
<td>1</td>
<td>-.29</td>
<td>&lt;.00</td>
<td>4</td>
<td>.59</td>
<td>1.86</td>
<td>&lt;.05</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>-.24</td>
<td>.21</td>
<td>4</td>
<td>.59</td>
<td>1.86</td>
<td>&lt;.05</td>
</tr>
<tr>
<td>Browsing the internet</td>
<td>1</td>
<td>-.28</td>
<td>.07</td>
<td>4</td>
<td>.63</td>
<td>1.94</td>
<td>&lt;.05</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>-.25</td>
<td>.20</td>
<td>4</td>
<td>.63</td>
<td>1.94</td>
<td>&lt;.05</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>-.08</td>
<td>.44</td>
<td>4</td>
<td>.63</td>
<td>1.94</td>
<td>&lt;.05</td>
</tr>
<tr>
<td>Talking to other important people</td>
<td>1</td>
<td>-.21</td>
<td>.72</td>
<td>4</td>
<td>.55</td>
<td>1.77</td>
<td>&lt;.05</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>-.19</td>
<td>.59</td>
<td>4</td>
<td>.55</td>
<td>1.77</td>
<td>&lt;.05</td>
</tr>
<tr>
<td>Engaging in extra-curricular reading/research</td>
<td>1</td>
<td>-.31</td>
<td>.27</td>
<td>4</td>
<td>.52</td>
<td>1.42</td>
<td>&lt;.05</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>-.34</td>
<td>.16</td>
<td>4</td>
<td>.52</td>
<td>1.42</td>
<td>&lt;.05</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>-.34</td>
<td>.16</td>
<td>5</td>
<td>.39</td>
<td>1.27</td>
<td>&lt;.05</td>
</tr>
<tr>
<td>Talking to faculty/staff</td>
<td>2</td>
<td>-.41</td>
<td>.42</td>
<td>3</td>
<td>.16</td>
<td>1.07</td>
<td>&lt;.05</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>-.41</td>
<td>.42</td>
<td>4</td>
<td>.49</td>
<td>1.15</td>
<td>&lt;.05</td>
</tr>
</tbody>
</table>

Notes: *When interpreting the means and standard deviations, it is important to keep in mind that the data were standardized for ease of comparison between the activities. **Exact $p$'s were not obtained for this analyses due to the nature of the statistical package.
Prediction of Career and Academic Values Discrepancies by Career and Graduate School Preparation Activities

It was hypothesized that individuals who have engaged in higher levels of educational career preparation activities will have smaller career values discrepancies than those who have engaged in fewer of these activities. Because the factor analysis was unable to identify an underlying educational career preparation activities construct involving a subset of these activities, all of the activities were used in this analysis. A multiple regression using stepwise selection was conducted to determine whether career values discrepancies could be predicted from career preparation activities. No activity was able to significantly predict career discrepancies. This same analysis was repeated with students in their third year or beyond. Again, no activity was able to significantly predict career discrepancies. Another multiple regression using stepwise selection was conducted to determine whether career discrepancies could be predicted from graduate school preparation activities. A hypothesis was not made in regards to the relationship between these variables. However, the results may be useful in understanding the lack of significant results of the previous analysis. Only graduate school interviews was able to significantly predict career discrepancies, $F(1, 179) = 5.914, p = .016$. Obviously this finding has little meaning, since it would be rare for a first or second year student to engage in this activity. For this reason, this same analysis was repeated with students in their third year or beyond. This time both graduate school interviews and talking to faculty and staff significantly predicted career discrepancies, $F(2, 90) = 5.547, p = .005$. The negative correlation of these activities with career value discrepancies, -.261 and -.181 respectively, indicates that more engagement in these activities predicts more career value discrepancies. This supports the idea that attending graduate school is a way to avoid deciding on a career. However, the low correlations and the large number of
predictors suggest that this might be a spurious effect. See Table 4 for the details of this analysis.

Table 4

Career Values Discrepancies Regressed onto Graduate School Preparation Activities

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>df</th>
<th>change in significance of F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.26</td>
<td>.07</td>
<td>.06</td>
<td>1, 91</td>
<td>.011</td>
</tr>
<tr>
<td>2</td>
<td>.33</td>
<td>.11</td>
<td>.09</td>
<td>2, 90</td>
<td>.043</td>
</tr>
</tbody>
</table>

Model 1: (constant), interviews.
Model 2: (constant), interviews, talking.

It was hypothesized that individuals who have engaged in higher levels of educational graduate school preparation activities will have smaller academic values discrepancies than those who have engaged in lesser levels of these activities. Because a factor analysis was unable to identify an underlying educational graduate school preparation activities construct involving a subset of these activities, all of the activities were used in this analysis. A multiple regression using stepwise selection was conducted to determine whether academic discrepancies could be predicted from graduate school preparation activities. No activity was able to significantly predict academic discrepancies. This same analysis was repeated with students in their third year or beyond. Again, no activity was able to significantly predict career discrepancies. Another multiple regression using stepwise selection was conducted to determine whether academic discrepancies could be predicted from career preparation activities. A hypothesis was not made in regards to the relationship between these variables. However, the results may be useful in understanding the lack of significant results of the
previous analysis. No activity was able to significantly predict academic discrepancies. This same analysis was repeated with students in their third year or beyond. Again, no activity was able to significantly predict career discrepancies.

**Prediction of Career and Academic Identity by Career and Graduate School Preparation Activities**

Although there were no hypotheses regarding the relationships among these variables, the analyses in the previous section did not provide much help in understanding the relationships among career and graduate school preparation activities and career and academic values discrepancies. It is possible that these activities influence academic and career identity directly. To help better understand the influence of these activities, the relationships among career and academic identity and career and graduate school preparation activities was explored. A multiple regression using stepwise selection was conducted to determine whether career identity could be predicted from career preparation activities. Only one activity out of twelve, talking with faculty and staff, significantly predicted career identity, $F(1, 171) = 9.544, p = .002$. This analysis was repeated with students in their third year or beyond. A different activity, engaging in extra-curricular reading/research, significantly predicted career identity, $F(1, 90) = 6.652, p = .012$. The positive correlation of these two activities with career identity, .230 and .262 respectively, indicates that more engagement in these activities for the respective samples predicts a stronger career identity. See Table 5 for details of these analyses.
Another multiple regression using stepwise selection was conducted to determine whether career identity could be predicted from graduate school preparation activities. Only one activity out of nine, engaging in extra-curricular reading/research, significantly predicted career identity, $F(1, 185) = 10.141$, $p = .002$. Again, this analysis was repeated with students in their third year or beyond. The same activity as in the whole sample, engaging in extra-curricular reading/research, significantly predicted career identity, $F(1, 95) = 5.888$, $p = .017$. The positive correlation of this activity with career identity for both samples, .228 and .242 respectively, indicates that more engagement in this activity predicts a stronger career identity. See Table 6 for details of these analyses.
A multiple regression using stepwise selection was conducted to determine whether academic identity could be predicted from career preparation activities. Only one activity out of twelve, engaging in extra-curricular reading/research, significantly predicted academic identity $F(1, 172) = 5.823, p = .017$. This analysis was repeated with students in their third year or beyond. The same activity as in the whole sample, engaging in extra-curricular reading/research, significantly predicted academic identity, $F(1, 91) = 5.625, p = .020$. The positive correlation between this activity and academic identity for both samples, .181 and .241 respectively, indicates that more engagement in this activity predicts a stronger academic identity. See Table 7 for details of these analyses.

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>df</th>
<th>change in significance of F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.23</td>
<td>.05</td>
<td>.05</td>
<td>1, 185</td>
<td>.002</td>
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<tr>
<td>2</td>
<td>.24</td>
<td>.06</td>
<td>.05</td>
<td>1, 95</td>
<td>.017</td>
</tr>
</tbody>
</table>

Model 1: (constant), reading--analysis conducted on entire sample.
Model 2: (constant), reading--analysis conducted on students in their third year or beyond.
Another multiple regression using stepwise selection was conducted to determine whether academic identity could be predicted from graduate school preparation activities. Two activities out of twelve, engaging in extra-curricular reading/research and talking to faculty/staff, significantly predicted academic identity $F(2, 185) = 14.508, p < .0005$. Again, this analysis was repeated with students in their third year or beyond.

Only engaging in extra-curricular reading/research significantly predicted academic identity, $F(1, 96) = 15.683, p < .0005$. The positive correlations of these activities with academic identity—.332, .296 respectively for the whole sample, and .375 for the third and fourth year student sample—indicate that more engagement in these activities, for the respective samples, predicts higher academic identity. See Table 8 for details of these analyses.

Table 7
Academic Identity Regressed onto Career Preparation Activities

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>df</th>
<th>change in significance of F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.18</td>
<td>.03</td>
<td>.03</td>
<td>1, 172</td>
<td>.017</td>
</tr>
<tr>
<td>2</td>
<td>.24</td>
<td>.06</td>
<td>.05</td>
<td>1, 91</td>
<td>.020</td>
</tr>
</tbody>
</table>

Model 1: (constant), reading—analysis conducted on entire sample.
Model 2: (constant), reading—analysis conducted on students in their third year or beyond.
Table 8

Academic Identity Regressed onto Graduate School Preparation Activities

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>df</th>
<th>change in significance of F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.33</td>
<td>.11</td>
<td>.11</td>
<td>1, 186</td>
<td>&lt;.0005</td>
</tr>
<tr>
<td>2</td>
<td>.37</td>
<td>.14</td>
<td>.13</td>
<td>2, 185</td>
<td>.020</td>
</tr>
<tr>
<td>3</td>
<td>.38</td>
<td>.14</td>
<td>.13</td>
<td>1, 96</td>
<td>&lt;.0005</td>
</tr>
</tbody>
</table>

Model 1: (constant), reading--analysis conducted on entire sample.
Model 2: (constant), reading, talking--analysis conducted on entire sample.
Model 3: (constant), reading--analysis conducted on students in their third year or beyond.

Prediction of Career and Academic Identity by Career and Academic Values

Discrepancies

The means and standard deviations for each value of the career and academic values discrepancies is reported in Table 15 of Appendix D. This shows that the pattern of the career values discrepancies is similar to the pattern of the academic values discrepancies. It should be noted, however, that the direction of the discrepancies are not indicated in these means. For example, one person could find wisdom to be quite valuable, while another does not find it to be valuable at all. If the first person thinks that the ideal student does not find wisdom valuable, while the second person thinks the ideal student does find it valuable, both could be equally discrepant from their visions of the ideal student. So these means and standard deviations reflect the simple fact that they are discrepant to some degree. This should be kept in mind while reviewing these statistics and the results to follow.
It was hypothesized that individuals with smaller career values discrepancies will display higher levels of career identity, and that individuals with smaller academic values discrepancies will display higher levels of academic identity and career identity, than those with larger discrepancies. A multiple regression using stepwise selection was conducted to determine whether career identity could be predicted from career and academic discrepancies. Neither could significantly predict career identity. This same analysis was repeated with students in their third year or beyond. Again neither could significantly predict career identity. However, note from Figure 2 the small but significant correlation, .13, between career identity and career discrepancies. Another multiple regression using stepwise selection was conducted to determine whether academic identity could be predicted from career and academic discrepancies. Only career discrepancies significantly predicted academic identity, $F(1, 178) = 15.649, p < .0005$. This same analysis was repeated with students in their third year or beyond. Again, only career discrepancies significantly predicted academic identity, $F(1, 88) = 10.237, p = .002$. However, note from Figure 2 that academic discrepancies was just as correlated with academic identity, .29, as career discrepancies. The ability of academic discrepancies to predict academic identity was masked by the strong correlation between academic and career discrepancies. The positive correlations between career values discrepancies and academic identity, .284 for the whole sample and .323 for the junior and senior sample, indicates that less discrepancies predicts a stronger academic identity. See Table 9 for details of this analysis.
Table 9

Academic Identity Regressed onto Career and Academic Discrepancies

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>df</th>
<th>change in significance of F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.28</td>
<td>.08</td>
<td>.08</td>
<td>1,178</td>
<td>&lt; .0005</td>
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<td>2</td>
<td>.32</td>
<td>.10</td>
<td>.09</td>
<td>1,88</td>
<td>.002</td>
</tr>
</tbody>
</table>

Model 1: (constant), career discrepancies—analysis conducted on entire sample.
Model 2: (constant), career discrepancies—analysis conducted on students in their third year or beyond.

Prediction of SWLS, RSE, PAS and NAS by Career and Academic Identity

Although no hypothesis was made regarding the prediction of SWLS, RSE, PAS, and NAS by career and academic identity, high correlations between the latter two variables and the former four suggested this might provide useful information. A multiple regression using stepwise selection was conducted to determine whether SWLS could be predicted from career identity and academic identity. Both significantly predicted SWLS, \( F(2, 187) = 23.398, p < .0005 \). This analysis was repeated with students in their third year or beyond, and again, both significantly predicted SWLS, \( F(2, 95) = 13.519, p < .0005 \). The positive correlation between SWLS and career and academic identity (.433 and .339 respectively for the upper-class sample, see Figure 2 for the whole sample) indicates that the stronger the career and academic identity, the higher the SWLS. See Table 10 for details of this analysis.

A multiple regression using stepwise selection was conducted to determine whether RSE could be predicted from career identity and academic identity. Both significantly predicted RSE, \( F(2, 187) = 47.378, p < .0005 \). This analysis was repeated with students in their third year or beyond, and again, both significantly predicted RSE,
$E(2, 95) = 19.945, p < .0005$. The positive correlation between RSE and career and academic identity (.453 and .455 respectively for the upper-class sample, see Figure 2 for the whole sample) indicates that the stronger the career and academic identity, the higher the RSE. See Table 10 for details of this analysis.

A multiple regression using stepwise selection was conducted to determine whether PAS could be predicted from career identity and academic identity. Both significantly predicted PAS, $E(2, 187) = 43.862, p < .0005$. This analysis was repeated with students in their third year or beyond. In this analysis, only academic identity significantly predicted PAS, $E(1, 96) = 31.729, p < .0005$. The positive correlation between PAS and career and academic identity for the whole sample (see Figure 2) and between PAS and academic identity for the upper-class, .498, indicates that the stronger the academic identity for the upper-class, and the stronger the career and academic identity for the whole sample, the higher the PAS. See Table 10 for details of this analysis.

A multiple regression using stepwise selection was conducted to determine whether NAS could be predicted from career identity and academic identity. Both significantly predicted NAS, $E(2, 186) = 14.658, p < .0005$. This analysis was repeated with students in their third year or beyond, and again, both significantly predicted NAS, $E(2, 94) = 11.047, p < .0005$. The negative correlation between NAS and career and academic identity (-.391 and -.332 respectively for the upper-class sample, see Figure 2 for the whole sample) indicates that the stronger the career and academic identity, the lower the negative affect measured by NAS. See Table 10 for details of this analysis.
### Table 10

**SWLS, RSE, PAS and NAS Regressed onto Career Identity (CI) and Academic Identity (AI)**

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Sample</th>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>df</th>
<th>change in significance of F</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>CI</td>
<td>.39</td>
<td>.15</td>
<td>.15</td>
<td>1,188</td>
<td>&lt;.0005</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CI, AI</td>
<td>.45</td>
<td>.20</td>
<td>.19</td>
<td>2,187</td>
<td>.001</td>
</tr>
<tr>
<td>SWLS</td>
<td>Upper-class</td>
<td>CI</td>
<td>.43</td>
<td>.19</td>
<td>.18</td>
<td>1,96</td>
<td>&lt;.0005</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CI, AI</td>
<td>.47</td>
<td>.22</td>
<td>.21</td>
<td>2,95</td>
<td>.045</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>AI</td>
<td>.51</td>
<td>.26</td>
<td>.25</td>
<td>1,188</td>
<td>&lt;.0005</td>
</tr>
<tr>
<td></td>
<td></td>
<td>AI, CI</td>
<td>.58</td>
<td>.34</td>
<td>.33</td>
<td>2,187</td>
<td>&lt;.0005</td>
</tr>
<tr>
<td></td>
<td>Upper-class</td>
<td>AI</td>
<td>.46</td>
<td>.21</td>
<td>.20</td>
<td>1,96</td>
<td>&lt;.0005</td>
</tr>
<tr>
<td></td>
<td></td>
<td>AI, CI</td>
<td>.54</td>
<td>.30</td>
<td>.28</td>
<td>2,95</td>
<td>.001</td>
</tr>
<tr>
<td>RSE</td>
<td>Total</td>
<td>AI</td>
<td>.55</td>
<td>.30</td>
<td>.30</td>
<td>1,188</td>
<td>&lt;.0005</td>
</tr>
<tr>
<td></td>
<td></td>
<td>AI, CI</td>
<td>.57</td>
<td>.32</td>
<td>.31</td>
<td>2,187</td>
<td>.031</td>
</tr>
<tr>
<td></td>
<td>Upper-class</td>
<td>AI</td>
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<td>.25</td>
<td>.24</td>
<td>1,96</td>
<td>&lt;.0005</td>
</tr>
<tr>
<td>PAS</td>
<td>Total</td>
<td>AI</td>
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<td>.30</td>
<td>.30</td>
<td>1,188</td>
<td>&lt;.0005</td>
</tr>
<tr>
<td></td>
<td></td>
<td>AI, CI</td>
<td>.57</td>
<td>.32</td>
<td>.31</td>
<td>2,187</td>
<td>.031</td>
</tr>
<tr>
<td></td>
<td>Upper-class</td>
<td>AI</td>
<td>.50</td>
<td>.25</td>
<td>.24</td>
<td>1,96</td>
<td>&lt;.0005</td>
</tr>
<tr>
<td>NAS</td>
<td>Total</td>
<td>CI</td>
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<td>.09</td>
<td>.09</td>
<td>1,187</td>
<td>&lt;.0005</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CI, AI</td>
<td>.37</td>
<td>.14</td>
<td>.13</td>
<td>2,186</td>
<td>.002</td>
</tr>
<tr>
<td></td>
<td>Upper-class</td>
<td>CI</td>
<td>.39</td>
<td>.15</td>
<td>.14</td>
<td>1,95</td>
<td>&lt;.0005</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CI, AI</td>
<td>.44</td>
<td>.19</td>
<td>.17</td>
<td>2,94</td>
<td>.040</td>
</tr>
</tbody>
</table>

**Categorization of Participants by Career Decidedness.**

Based on the measure of career decidedness, the participants were categorized into six groups. Originally, they were to be placed into three groups as they were in Bloor and Brook (1993). They would have been labeled as **decided** if they listed a first career choice, **undecided** if they listed alternative careers but no first choice, and **avoider**
if they were not currently considering any jobs. However, visual inspection of the data suggested that a six group breakdown would be more useful. They were labeled as avoider (n = 16) if they were not currently considering any jobs, inflexible/undecided (n = 2, see note below) if they identified only one career option but were undecided in terms of their first choice career--did not identify one of their listed options as their first choice, inflexible/decided (n = 41) if they identified only one career option and also identified that option as their first choice career, inflexible/unknown (n = 40) if they identified only one career option but did not write an answer for their first choice career--the unknown indicates that it was unable to be determined if they were undecided, or if the one career they indicated was their first choice, that is they were decided, flexible/undecided (n = 28) if they identified more than one career choice but were undecided in terms of their first choice career, and flexible/decided (n = 64) if they identified more than one career choice and indicated a first choice career. Only two people were inflexible/undecided, and so for statistical reasons, they were collapsed into the inflexible/unknown group. The order of these groups, from least to most decided is: avoiders, flexible/undecided, flexible/decided, inflexible/unknown, inflexible/decided.

Differences in Academic Identity, Career Identity, RSE, NAS, PAS, SWLS, and Career and Graduate School Preparation Activities by Levels of Career Decidedness.

It was hypothesized that individuals with higher levels of career decidedness will exhibit higher levels of self-esteem, subjective well-being, engagement in constructive career and graduate school preparation activities, career identity, and academic identity.

A MANOVA was conducted to determine differences between levels of career decidedness in the following four activities: mailing out graduate school applications, having graduate school interviews, mailing out job applications, and having job interviews. These were selected because the factor analysis was unable to identify underlying constructive career and graduate school preparation activities constructs, and
individually they were the most constructive in nature. No significance was detected, Wilks' Lambda $F(16, 553.602) = 1.482, p = .101$. A similar MANOVA was conducted with the juniors and seniors, but again no significance was detected, Wilks' Lambda $F(16, 275.592) = .946, p = .516$.

A MANOVA was conducted to determine differences between levels of career decidedness on the basis of academic identity, career identity, self-esteem, negative affect, positive affect, and satisfaction with life. A table of the means and standard deviations on these variables by level of career decidedness is given in Table 11.

<table>
<thead>
<tr>
<th>Level of Career Decidedness</th>
<th>NAS</th>
<th>PAS</th>
<th>SWLS</th>
<th>RSE</th>
<th>Academic Identity</th>
<th>Career Identity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoider (n = 15)</td>
<td>28.13</td>
<td>33.53</td>
<td>19.47</td>
<td>31.20</td>
<td>66.27</td>
<td>4.80</td>
</tr>
<tr>
<td>Flexible/undecided (n = 28)</td>
<td>29.29</td>
<td>37.00</td>
<td>22.46</td>
<td>30.04</td>
<td>66.79</td>
<td>6.11</td>
</tr>
<tr>
<td>Flexible/decided (n = 63)</td>
<td>28.43</td>
<td>36.38</td>
<td>23.57</td>
<td>32.70</td>
<td>65.65</td>
<td>8.03</td>
</tr>
<tr>
<td>Inflexible/unknown (n = 39)</td>
<td>26.26</td>
<td>37.97</td>
<td>25.28</td>
<td>33.36</td>
<td>67.54</td>
<td>8.95</td>
</tr>
<tr>
<td>Inflexible/decided (n = 41)</td>
<td>26.76</td>
<td>37.39</td>
<td>23.34</td>
<td>32.37</td>
<td>67.29</td>
<td>9.15</td>
</tr>
<tr>
<td>Total</td>
<td>27.71</td>
<td>36.80</td>
<td>23.38</td>
<td>32.24</td>
<td>66.63</td>
<td>7.92</td>
</tr>
</tbody>
</table>

Note: Standard Deviations given in parentheses.
Significance was detected, Wilks' Lambda $F(24, 615.201) = 2.060, p = .002$; as well as univariate significance for career identity; $F(4, 181) = 7.023, p < .0005$; self-esteem; $F(4, 181) = 2.514, p = .043$; and satisfaction with life; $F(4, 181) = 2.466, p = .047$. Post hoc analyses using Tukey's HSD, see Table 12, and the means and standard deviations in Table 11 highlight patterns in the data. The pattern for career identity, which increases as the level of career decidedness increases, is quite clear. There is an especially large increase between flexible/undecided and flexible/decided. The means for academic identity appear relatively flat across levels of career decidedness. However, the means for inflexible/unknown and inflexible/decided are somewhat larger. Self-esteem appears to increase with level of career decidedness, especially in the middle three levels. This pattern does not hold true for avoiders and inflexible/decided though. Satisfaction with life again increases with level of career decidedness, except for inflexible/decided, with avoiders having a particularly low score and inflexible/unknown a particularly high score. Although not significant, patterns do appear in PAS and NAS. Avoiders have a lower PAS score than the remaining levels of career decidedness, and the NAS scores get smaller as level of career decidedness increases particularly between flexible/decided and inflexible/unknown. This same MANOVA was repeated with students in their third year or beyond. This time, no significance was detected, Wilks' Lambda $F(24, 301.228) = 1.032, p = .424$. 


Table 12

Post Hoc Analyses for Differences in Career Identity, Self-Esteem and Satisfaction with Life by Level of Career Decidedness

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Career Decidedness Level A</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Career Decidedness Level B</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career Identity</td>
<td>avoider</td>
<td>4.80</td>
<td>2.98</td>
<td>inflexible</td>
<td>8.95</td>
<td>3.27</td>
<td>.001</td>
</tr>
<tr>
<td></td>
<td>avoider</td>
<td>4.80</td>
<td>2.98</td>
<td>inflexible</td>
<td>9.15</td>
<td>3.52</td>
<td>&lt;.0005</td>
</tr>
<tr>
<td></td>
<td>avoider</td>
<td>4.80</td>
<td>2.98</td>
<td>flexible</td>
<td>8.02</td>
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<td>.011</td>
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<tr>
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<td>flexible</td>
<td>6.11</td>
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<td>inflexible</td>
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<td>3.27</td>
<td>.009</td>
</tr>
<tr>
<td></td>
<td>flexible</td>
<td>6.11</td>
<td>3.50</td>
<td>inflexible</td>
<td>9.15</td>
<td>3.52</td>
<td>.003</td>
</tr>
<tr>
<td></td>
<td>undecided /unknown</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>undecided /decided</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>undecided /unknown</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>undecided /decided</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-Esteem</td>
<td>flexible</td>
<td>30.04</td>
<td>3.88</td>
<td>inflexible</td>
<td>33.36</td>
<td>5.04</td>
<td>.030</td>
</tr>
<tr>
<td></td>
<td>undecided /undecided</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfaction</td>
<td>avoider</td>
<td>19.50</td>
<td>5.83</td>
<td>inflexible</td>
<td>25.30</td>
<td>6.12</td>
<td>.021</td>
</tr>
<tr>
<td>with Life</td>
<td></td>
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<td></td>
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</tr>
</tbody>
</table>
CHAPTER 4

DISCUSSION

Overview of Results

Before discussing the results, it must be noted that they do not provide causal information. Also, the conceptual framework driving this project is only one of several possible frameworks. Although it implies a temporal sequence, the dynamic process indicated cannot be tested in the present cross-sectional design. A longitudinal design would be needed for this purpose. Establishing the correlations among these variables and exploring the validity of the framework is only the first step. The results of this study will show where the framework is weak and where it should be revised. Later in this discussion a revised version of the original framework will be proposed. One of the next steps to be taken in future research is to demonstrate the causality of some of the relationships laid out in this project.

It is also important to recall the demographics of the population. Almost two-thirds of the sample were white, and about half were psychology majors. These demographics limit the generalizability of these results. However, results indicated no differences in the RSE, the NAS, the PAS, the SWLS, the academic identity scale, the career identity scale, the academic discrepancies scale and the career discrepancies scale between psychology majors and other majors, and between white and minority students. Ideally it would be best to select a more representative sample that mirrors the college population as a whole.

The failure to confirm the constructs of educational and constructive career and graduate school preparation activities suggests that there are no underlying constructs
reflecting these ideas. It might be that each activity provides unique information and experience to the students. Each activity might educate them and help them prepare in a unique manner. However, as will be discussed shortly, measuring career and graduate school preparation as it was measured in this project may not be the best way. Yet, the scarcity of engagement in these activities is no fault of the measure and, in fact, is an important finding that may have been missed with an alternative measure. In any case, more work needs to be done to identify the most useful way to measure career preparation.

In terms of career preparation activities, most of the differences were between students in or beyond their fourth year and those in earlier years. These results show that, as the number of years in school increases, these activities increase. These findings are not surprising. However, this can only be said of five of the activities: browsing the internet, engaging in extra-curricular reading/research, talking to faculty/staff, talking to potential employers, and mailing letters to potential employers. What is surprising is the lack of differences in the remainder of the activities. Also, there was very low engagement in these activities in any year of school. Because of this, analyses regarding these activities were hampered by restriction in range. A more active sample may have shown the predicted pattern to hold for most or all of the activities.

Like career preparation activities, engagement in graduate school preparation activities increased with year in school. This can be said of six of the nine activities: filling out graduate school applications, talking to graduate school officials, browsing the internet, talking to other important people, engaging in extra-curricular reading/research, and talking to faculty/staff. But again, there was relatively low engagement in these activities across the board. In short, these findings indicate that: (1) engagement in the career and graduate school preparation activities identified above tends to increase with
the amount of time spent in school, but (2) that even in later years of college, engagement in these activities is low. College officials should do more to stimulate these activities.

One interesting finding is the extremely high, positive correlation between career and academic values discrepancies. This correlation indicates that there may be only one construct, encompassing both types of discrepancies, being measured. Maybe students' conceptions of the ideal career candidate naturally follows from their conception of the ideal student; an ideal student should naturally become an ideal career candidate. Directly measuring the difference between their own values and this ideal conception, then, could be an indication of how different they perceive themselves to be from those who are able to successfully educate themselves and use this education to advance in a career. The patterns of the means of each value is similar for academic and career values discrepancies, which supports the single construct idea. However, the direction of career values discrepancies, whether one held a value to be more or less important than the ideal, could be different than the direction of academic values discrepancies, yet the discrepancy score as measured in this study would be the same. If the direction of the discrepancies is different, then these may in fact be two separate constructs. The direction of these discrepancies, which was not measured in this study, needs to be measured for this to be determined. If this is only one construct, this would help to expose students' expectations in regards to successful employment naturally following higher education. On the other hand, if they are different constructs, then students need to become aware of value adjustments that may need to be made as part of the transition from college to employment. In either case, future research should focus on specific values especially relevant to differences between academic and job settings to expose the struggle between value traditions discussed by Wirth (1992).

It was hypothesized that individuals who have engaged in higher levels of educational career preparation activities will have smaller career values discrepancies,
and that individuals who have engaged in higher levels of educational graduate school preparation activities will have smaller academic values discrepancies, than those who have engaged in lesser levels of these activities. Neither hypothesis was supported. No career preparation activity was able to predict career values discrepancies, and no graduate school preparation activity was able to predict academic values discrepancies. This was true for all of the students, and for the juniors and seniors alone. Although no hypothesis was made, graduate school interviews and talking to faculty/staff about graduate school were able to predict career discrepancies in the junior/senior sample. Correlations suggested that more engagement in these activities predicts more career values discrepancies. The lack of support of the hypotheses is not surprising in light of the fact that not many people engaged in these activities. For it to have an impact, one must first engage in an activity. It may be that if these activities were engaged in by the students, they would help decrease value discrepancies. A replication with a population that is more active in terms of these activities would help to clarify this issue.

The correlation between career and academic identity (.29) was only a moderate, positive correlation. This points to the conclusion that, although they do overlap to some degree, each makes significant, unique contributions to one's overall identity. Predicting both academic and career identity is important, then, if the transition between college and employment is to be understood. Recall that the statements on the career identity scale refer mostly to certainty about readiness to select a career, which helps explain why it is so highly related to career decidedness. In contrast, the academic identity scale consists of statements about how good people are in school and how much they like school.

Although no hypotheses were made, some career and graduate school preparation activities were useful in predicting both academic and career identity. An interesting pattern occurred. Talking with faculty/staff about career possibilities predicted career identity with the total sample, while engaging in extra-curricular reading/research about
career possibilities predicted career identity with just the juniors and seniors. The latter
activity also predicted academic identity for both groups. Engaging in extra-curricular
reading/research for graduate school predicted career identity for both groups. In terms
of predicting academic identity from graduate school preparation activities, both
engaging in extra-curricular reading/research and talking to faculty/staff were predictive
in the total sample, while only the former was predictive in the case of juniors and
seniors. In general, it seems that two types of activities, engaging in extra-curricular
reading/research and talking to faculty/staff are highly important in predicting both career
and academic identity. However, the pattern of these results suggest a developmental
model. It is likely that different activities have different effects on career and academic
identity at different points in one's college career. Also, certain activities not on the list
used in this study may be relevant. For instance, certain classes or classroom activities
may influence academic and career identity. Finally, some careers require going to
graduate/professional school so academic and career identity and preparation activities
may not be very distinct.

It was hypothesized that individuals with smaller career values discrepancies will
display higher levels of career identity than those with larger discrepancies, and that
individuals with smaller academic values discrepancies will display higher levels of
academic identity and career identity than those with larger discrepancies. Neither
hypothesis was supported. Only career discrepancies was able to predict academic
identity. Correlations indicated that less discrepancies predicts a stronger academic
identity. This was true for both the total sample, and the sample of juniors and seniors.
However, recall the high positive correlation between academic and career discrepancies.
The high correlation indicates that, as previously discussed, probably only one construct
is being measured. It is not surprising then that only one was useful as a predictor.
Because of the high correlation, one could not account for a significant amount of the
variance beyond which the other had already accounted. Implications of this finding will be discussed below.

The differences between the categories of career decidedness provide much insight. Before discussing these findings, however, one of the categories—inflexible/unknown—needs to be examined more closely. For the sake of discussion, it will be assumed that this category is comprised of students who are primarily inflexible/decided. It is plausible to assume that if they only indicated one career as a possible choice, and did not indicate that they were undecided, that the one career they indicated is in fact their first choice. It is likely that there are a few in this category that are inflexible/undecided. This decision is supported by the fact that the category inflexible/undecided seems somewhat contradictory. Also, looking at Table 11, the categories inflexible/unknown and inflexible/decided were highly similar in terms of self-esteem, subjective well-being, and academic and career identity.

It was hypothesized that individuals with higher levels of career decidedness will exhibit higher levels of self-esteem, subjective well-being, engagement in constructive career preparation activities, career identity and academic identity than those with lower levels of career decidedness. In terms of career identity, the avoiders had the lowest overall mean score (4.80), followed by flexible/undecided (6.11) and then the rest (8.03 - 9.15). This suggests that those who are avoiding the career search, and those who are still exploring different careers (flexible) and have not decided upon any one career, have the lowest career identity. Those who have only one career in mind and have decided to pursue that career, as well as those who are still exploring but have basically made up their mind, have higher career identities. Avoiders also suffered in terms of satisfaction with life, having the lowest mean score, while those who are still exploring and have not yet decided had the lowest self-esteem score.
The differences discovered in the levels of career decidedness in terms of year in school are relevant here. There were no avoiders beyond their third year, suggesting that the negative consequences of being in that category are only felt by younger students. However the flexible/undecided category, membership in which had negative consequences, was evenly distributed across years. Membership in the inflexible/decided category and the inflexible/unknown category—which is being interpreted as inflexible/decided, as discussed, had positive consequences. The former was under-represented by second year students while the latter was under-represented by first and second year students and over-represented by third year students. However, the flexible/decided category, which also had positive consequences, was over-represented by first and second year students and under-represented by third year students. Another way of looking at this issue is to examine the column percentages in Table 13. The largest proportion, almost half, of the first and second year students are flexible/decided. Students in their third year and beyond have much smaller numbers in that category, less than a third, while half or more were either inflexible/unknown or inflexible/decided. Implications of these findings will be discussed later.

Contrary to expectations, there were no differences between levels of career decidedness in terms of the number of job applications, job interviews, graduate school applications, and graduate school interviews.

General Discussion and Implications

Because of the statistical problems with career and graduate school preparation activities, they will not be discussed until late in the paper, and then only briefly. To sum up, career value discrepancies was significantly related to academic identity for both the total sample and for upper-class students only, while academic identity was, in turn, predictive of satisfaction with life, self-esteem, PAS and NAS for both the total sample and upper-class students alone. Academic value discrepancies was unable to predict
certain or academic identity, while career identity: (1) was useful in predicting satisfaction with life, self-esteem, PAS and NAS for the total sample; (2) was useful in predicting satisfaction with life, self-esteem, and NAS for upper-class students alone; and (3) varied directly with career decidedness for the total sample. Self-esteem and satisfaction with life also varied in terms of the categories of career decidedness for the total sample. Although career decidedness differed in terms of year in school, the results did not form a simple pattern. Before any implications can be drawn, further research will be needed to clarify the meaning of this interaction.

This summary shows two possible paths to subjective well-being and self-esteem: one through academic identity, and one through career identity (see Figure 3). The fact that both career and academic values discrepancies failed to predict academic identity is congruent with the idea that they may be measuring the same construct. If they were

![Diagram]

Fig. 3. Revised conceptual framework.
measuring different constructs, it seems that academic discrepancies would have been able to account for some of the variance in academic identity. If it is assumed then that there is only one construct, it makes sense that it would only predict academic identity. If these discrepancies are really an indication of how different students perceive themselves to be from those who are able to successfully educate themselves and use this education to advance in a career, it follows that at this point in their lives, this would predict academic identity. They are in school, and if it is true that they believe that higher education leads to a better career, then they should be concentrating on their education both as an end in itself, and as a means to a career. If there are smaller discrepancies between themselves and this ideal conception, then higher academic identity should follow. After they graduate, these same discrepancies might be more predictive of career identity, since a career would then be their focus. For those going to graduate school, academic identity might take the place of or merge with career identity, and so these discrepancies would be predictive of this merged identity. This suggests that graduate school should be a popular choice. If one graduates, and is unable to become successfully employed, one might begin to doubt oneself. Career identity would then take a plunge, and one might begin doubting the accuracy of this ideal conception of this person getting higher education and then easily finding a job. Alternatively, if one were unable to gain successful employment one might begin to doubt how well one matches that ideal conception. It depends on whether the failure is attributed to something internal or external. In either case, discrepancies between oneself and the ideal would increase. If one goes to graduate school, this can all be avoided. One can avoid deciding upon the accuracy of the ideal conception or how well one matches this conception for another four years or so.

Combining career and academic discrepancies is congruent with the definition of career used in this study. One does not simply choose a career in isolation of prior
experiences. The development of the academic self during college has a tremendous impact on the lifestyle the individual will choose. This, again, suggests that graduate school should be a popular choice. Students prefer the lifestyle they have been living and are attempting to turn that into a career.

As has been discussed, when they graduate, students' career identity path might change from the above described path. That is, values discrepancies might have more of a role in predicting career identity rather than academic identity. But while they are in school, results suggest that it would take the above described form. Note that much of the career identity path holds true only for the sample as a whole. With the older students, the path breaks down. With these students, only career identity was useful in predicting satisfaction with life, self-esteem and NAS, while career decidedness was not useful in predicting these. It may be that by the time they reach later years of college, either career identity has established itself as a formative part of one's overall identity or it has not. For the avoiders, other parts of their identity, such as social identity and physical identity, might play the most formative roles in their overall identity. By focusing on these identities, they can ignore for the time being the detrimental effect their weak career identity is having on their satisfaction with life, self-esteem, and negative affect. Thus being less career decided no longer has an impact on these outcomes, and career identity has less of an impact and no impact on PAS—a seemingly more short-term indicator of well-being. It should be noted that although career decidedness was not significantly related to career identity in the upper-class students in the multivariate analysis, there was univariate significance for career identity. The lack of significance with the other dependent variables may have been masking this significant finding. Further work needs to be done to verify that this is the case. The problem is that, unless one has a very large bankroll, career identity will, upon graduation, take a much bigger
role in one's overall identity. The interplay of these different parts of identity before and after graduation is again the topic of another project.

Although implications in regards to career and graduate school preparation activities should be viewed with caution, it seems that talking to faculty/staff and engaging in extra-curricular reading/research were highly influential activities in terms of academic and career identity. That more engagement in graduate school interviews and talking to faculty/staff about graduate school predicted more career values discrepancies supports the idea that maybe some students going to graduate school are attempting to avoid the transition to employment, or at least make it easier. If this is true, it needs to be determined whether this is positive or negative. This could be negative, for example, if a person was not accepted at any graduate school. More work needs to be done on this.

A preliminary implication of this project is that to develop a strong self-esteem and a positive sense of subjective well-being students need to begin preparing for and deciding upon a career while remaining focused on their academics. Based on Table 13, students seem to shift in their career decidedness throughout their college careers. Many first and second year students are rather decided, yet remain flexible and explore their options. By the third and fourth years they are much more inflexible and decided. Those past their fourth year are overwhelmingly inflexible and decided. It is the older students, then, that are reaping the benefits of being more career decided.

Much work remains before this implication can be accepted, however. A question that remains to be answered is whether this focus on their careers will have a detrimental effect on their education. This seems unlikely, because there were indications that they believe their education to be a key variable in their career success, although this needs to be studied further. It is more likely that, by encouraging them to focus on a career, they will be more likely to pay attention to their education in order to achieve their career goals. Focusing on a career may lead them to avoid certain fields of
study, however. For instance, if one knew one's career of choice to be within the medical field, one may see no need for studying history. One may then put more effort into fields that are more directly related to one's career. Since there are certain skills that are applicable to all careers and can be learned in many fields of study, such as writing skills, cultural appreciation, and independence of thought, it is of lesser importance that one focuses more on fields related to one's career. It would be ideal for one to obtain a more well-rounded education. But, the better students will already know this, and for those who do not, any focus is better than none. It will also help some realize that higher education, although valuable in and of itself, is not necessarily the key to their career advancement.

Suggestions for Future Research

There were certain ideas of interest to this project that were unable to be addressed, but could be addressed in future research. It was thought that non-traditional students, a term which needs to be defined more specifically, will display higher levels of academic identity, career identity, and career decidedness, and smaller academic and career values discrepancies than other students. It was thought that individuals who completed a course, or courses, aimed specifically at helping individuals choose a career will exhibit higher levels of other career preparation activities than those who did not. Also, there may be an interplay between academic major and academic identity, career identity, career decidedness, and academic and career values discrepancies. For example, individuals in certain majors may have stronger career identities, while those in a different major have stronger academic identities.

The problem regarding the low number of engagement in career and graduate school preparation activities, and resulting problems with the statistics, suggests that a new way of measuring these activities needs to be devised. However, any method that does not take into account the amount of time spent on each activity will be sacrificing
important information. Also, if people are not engaging in these activities, no measurement technique will be useful. Maybe a scale that measures the students' perception of how much they have engaged in these activities, or of how prepared they are for a career or graduate school, would be more useful. However, it must be kept in mind that this would be measuring students' perception. In any case, measurement of these activities is a problem that needs to be resolved. Also, a method of actually increasing these activities needs to be identified.

The idea of values discrepancies also deserves future research. As has been discussed, career and academic values discrepancies might be measuring the same construct. Work needs to be done to identify and validate exactly what is being measured. For example, it would be useful to obtain ratings of values discrepancies in the manner used in this study, as well as ratings of the importance of these values to the students, their ratings of these values if they were an ideal candidate for a career and an ideal student, and the ratings of these values from actual ideal career candidates and ideal students. Criteria will need to be constructed to define ideal career candidate and ideal student. Comparisons among these will provide insight into values discrepancies and may expose other meaningful constructs.

Also, future research needs to develop and validate an alternative manner of measuring career discrepancies. Research could identify and focus on certain key individual values discrepancies, rather than on total discrepancies, and could focus on the direction of those discrepancies. This new measure could also be shorter and easier to complete by eliminating irrelevant values.

The values that are actually important to members of certain fields, and the students' perceptions of the importance of these values if these students were ideal candidates for jobs in these fields needs to be studied. This will help to identify how accurate students are in their perceptions of their career choice. It seems important to
fully understand the values in any career being chosen before making a decision about that career.

The measure of career decidedness needs to be further validated. Although the analyses with career identity helped to validate this measure and provided a better understanding of the categories of career decidedness, further refinement and validation of the measure will make it much more useful.

Beyond looking more closely at these measures, future research needs to focus more closely on specific sections of the conceptual framework. Certain hypotheses that need to be explored were mentioned in the discussion. Testing these hypotheses is a good place to start. Also, future research needs to provide causal information. Without this information, this area of research will never be fully developed. The use of a time series design would be an effective first step in this regard. One could, for example, measure students' career identities at different points in their college careers, along with their self-esteem and satisfaction with life. The relationship between the former and the latter two at different points in time would help identify how much career identity is influencing self-esteem and satisfaction with life, and whether that relationship varies at specific points. By measuring other related variables, one can identify variables that are influencing some or all three of these constructs. By introducing an intervention, for instance reading material, to a random selection of students at some point in the study, and then to a second selection of students at a later point, one can determine the impact of this intervention and can study the changes in the relationships of career counseling, self-esteem, satisfaction with life, and other related variables.

As mentioned, the relationships between the constructs being measured will most likely change upon graduation. An important next step is to begin looking at individuals who have already graduated, or to follow individuals longitudinally through and beyond
their graduation. Studies like these will be vital in understanding all aspects of this transition.

Students who have decided to go to graduate school also need to be studied further. How decided are these people on a career? Are those who are not decided merely avoiding the career decision? What percent of those going to graduate school fall into this situation? If they are avoiding the career decision, is that bad in regards to outcomes such as life satisfaction?

In short, this project has raised many more questions than it answered. This is not surprising due to the exploratory nature of the project. Further research in this area is critical if the transition from college to employment is to be fully understood. A complete understanding of this transition is vital in developing methods of helping students make a smoother transition.
APPENDIX A

MATERIAL ON THE QUESTIONNAIRE
The Satisfaction With Life Scale

Below are five statements with which you may agree or disagree. Using the scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and honest in your responding. The seven-point scale is as follows:

1  2  3  4  5  6  7
strongly disagree slightly neither agree slightly agree strongly agree
disagree nor disagree agree

___ In most ways my life is close to my ideal.

___ The conditions of my life are excellent.

___ I am satisfied with my life.

___ So far I have gotten the important things I want in life.

___ If I could live my life over, I would change almost nothing.
The Rosenberg Self-Esteem Scale

Below are statements with which you may agree or disagree. Using the scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and honest in your responding. The four-point scale is as follows:

1 Strongly Agree  2 Agree  3 Disagree  4 Strongly Disagree

____ I feel that I'm a person of worth, at least on an equal plane with others.

____ I feel that I have a number of good qualities.

____ All in all, I am inclined to feel that I am a failure.

____ I am able to do things as well as most other people.

____ I feel I do not have much to be proud of.

____ I take a positive attitude toward myself.

____ On the whole, I am satisfied with myself.

____ I wish I could have more respect for myself.

____ I certainly feel useless at times.

____ At times, I think I am no good at all.
The Positive and Negative Affect Scales

This section consists of a number of words that describe different feelings and emotions. Using the scale below, indicate the extent to which you have felt this way during the past year by placing the appropriate number on the line preceding that item. Please be open and honest in your responding. The five-point scale is as follows:

1 2 3 4 5
very slightly a little moderately quite a bit extremely
or not at all

____ interested  ____ guilty  ____ irritable  ____ determined
____ distressed  ____ scared  ____ alert  ____ attentive
____ excited  ____ hostile  ____ ashamed  ____ jittery
____ upset  ____ enthusiastic  ____ inspired  ____ active
____ strong  ____ proud  ____ nervous  ____ afraid
The General-School Scale--Academic Identity

Below are statements which you may believe are true or false. Using the scale below, indicate the extent to which you believe the statement to be true or false by placing the appropriate number on the line preceding that item. Please be open and honest in your responding. The eight-point scale is as follows:

<table>
<thead>
<tr>
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<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Definitely False</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Definitely True</td>
</tr>
</tbody>
</table>

___ I enjoy doing work for most academic subjects.

___ I hate studying for many academic subjects.

___ I like most academic subjects.

___ I have trouble with most academic subjects.

___ I'm good at most academic subjects.

___ I'm not particularly interested in most academic subjects.

___ I have a lot of intellectual curiosity.

___ I learn quickly in most academic subjects.

___ I hate most academic subjects.

___ I get good marks in most academic subjects.

___ I could never achieve academic honors, even if I worked harder.
My Vocational Situation Instrument--Career Identity

For the next few statements, please indicate whether you believe each statement to be true or false by writing a T for true or an F for false in the space before each statement.

_____ If I had to make an occupational choice right now, I am afraid I would make a bad choice.

_____ I don't know what my major strengths and weaknesses are.

_____ Making up my mind about a career has been a long and difficult problem for me.

_____ I am uncertain about the occupation I would enjoy.

_____ My estimates of my abilities and talents vary a lot from year to year.

_____ I am not sure that my present occupational choice is right for me.

_____ I am uncertain about the occupation in which I could perform well.

_____ I am sometimes interested in occupations for which I am not qualified to perform.

_____ I don't have to make a decision right now about an occupational choice.

_____ I doubt if I have the ability to make a good vocational decision right now.

_____ Who I am has a lot to do with my occupational choice.

_____ I wish I could define myself more in terms of my occupational choice.

_____ I am a career oriented person.

_____ I need information on how to find a job in my chosen career.

_____ I need information on what kinds of people enter different occupations.

_____ I need more information about employment opportunities.

_____ I need information on how to get the necessary training in my chosen career.

_____ I am uncertain about my ability to finish the necessary education or training.

_____ I don't have the money to follow the career I want most.

_____ I lack the special talents to follow my first choice career.

_____ An influential person in my life does not approve of my vocational choice.
Engagement in Career Preparation Activities

In the past two school years, in which of the following activities have you engaged to prepare yourself for a career or for graduate school? (Check all that apply, and answer the questions for those you check.)

____ engaged in extra-curricular reading/research in preparation for a potential career:
  For how many months ___

____ engaged in extra-curricular reading/research in preparation for graduate school:
  For how many months ___

____ browsed the internet for information regarding a potential career: For how many hours ___

____ browsed the internet for information regarding graduate school: For how many hours ___

____ talked to faculty/staff about career possibilities: How many people total ___

____ talked to faculty/staff about graduate school possibilities: How many people total ___

____ spoke or met with potential employers (not including formal interviews):
  How many total ___

____ spoke or met with graduate school officials (not including formal interviews):
  How many total ___

____ spoke or met with other important people in regards to career possibilities:
  How many total ___

____ spoke or met with other important people in regards to graduate school possibilities:
  How many total ___

____ attended workshops or informational meetings related to career advancement:
  How many total ___

____ attended workshops or informational meetings related to graduate school preparation:
  How many total ___

____ took courses aimed specifically at helping individuals choose a career.
(Please print the course numbers of these courses—if you remember):

____ received formal career counseling through a career counseling center:
  How many hours per session ___  How many sessions per week ___
  For how many weeks total ___

____ mailed letters to potential employers inquiring about job openings or seeking other information: How many total ___
mailed out letters to graduate schools seeking information about their programs: How many total

mailed out job applications: How many total

mailed out graduate school applications: How many total

had job interviews: How many total

had graduate school interviews: How many total

completed an internship related to a potential career choice or gained other career-related work experience: For how many hours per week For how many weeks

Other (Please explain: ________________________________ ________________________________ )
Value Survey, Version I

In the instructions below, the word ideal does not mean perfect, but rather means well-suited or exemplary.

Below is a list of words and phrases that represent different values. Please indicate how similar you believe you are to the ideal student in regards to the importance of each of the values listed. Do this by placing the appropriate number, from the scale below, in the space before each value.

<table>
<thead>
<tr>
<th>Scale</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>0</td>
<td>not at all similar</td>
</tr>
<tr>
<td>1</td>
<td>a little similar</td>
</tr>
<tr>
<td>2</td>
<td>fairly similar</td>
</tr>
<tr>
<td>3</td>
<td>very similar</td>
</tr>
<tr>
<td>4</td>
<td>completely similar</td>
</tr>
</tbody>
</table>

For example, consider the value "world peace." Here are four different situations.

(1) You think this is highly important, and believe the ideal student would think this is highly important. Therefore, you are completely similar to the ideal student.

(2) You think this is not important, and believe the ideal student would think this is not important. Therefore, you would again be completely similar to the ideal student.

(3) You think this is highly important, and believe the ideal student would think this is not important. Therefore, you would be not at all similar to the ideal student.

(4) You think this is highly important, and believe the ideal student would think this is moderately important. Therefore, you would be fairly or maybe very similar to the ideal student.

___ A comfortable life  ___ Mature love  ___ Ambitious  ___ Imaginative
___ An exciting life   ___ Pleasure  ___ Broad-minded  ___ Independent
___ A sense of accomplishment  ___ Salvation  ___ Capable  ___ Intellectual
___ Equality  ___ Self-respect  ___ Cheerful  ___ Logical
___ Freedom  ___ Social recognition  ___ Courageous  ___ Loving
___ Happiness  ___ True friendship  ___ Forgiving  ___ Polite
___ Inner harmony  ___ Wisdom  ___ Helpful  ___ Responsible
___ Honest  ___ Self-controlled
Career Decidedness

Do you have any potential careers in mind for when you have completed your education?

__Yes__ __No

If "Yes," what potential careers are you currently considering?

________________________________________

________________________________________

Of the potential careers you are considering, which is your first choice? (If undecided, write "undecided.")

________________________________________
Value Survey, Part II

In the instructions below, the word ideal does not mean perfect, but rather means well-suited or exemplary.

Below is a list of words and phrases that represent different values. Please indicate how similar you believe you are to the ideal candidate of your first choice career (or post-college employment in general, if undecided) in regards to the importance of each of the values listed. Do this by placing the appropriate number, from the scale below, in the space before each value.

<table>
<thead>
<tr>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>not at all similar</td>
<td>a little similar</td>
<td>fairly similar</td>
<td>very similar</td>
<td>completely similar</td>
</tr>
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</table>

For example, consider the value "world peace." Here are four different situations.

(1) You think this is highly important, and believe the ideal candidate would think this is highly important. Therefore, you are completely similar to the ideal candidate.

(2) You think this is not important, and believe the ideal candidate would think this is not important. Therefore, you would again be completely similar to the ideal candidate.

(3) You think this is highly important, and believe the ideal candidate would think this is not important. Therefore, you would be not at all similar to the ideal candidate.

(4) You think this is highly important, and believe the ideal candidate would think this is moderately important. Therefore, you would be fairly or maybe very similar to the ideal candidate.

___A comfortable life___Mature love___Ambitious___ Imaginative
___An exciting life___Pleasure___Broad-minded___Independent
___A sense of accomplishment___Salvation___Capable___Intellectual
___Equality___Self-respect___Cheerful___Logical
___Freedom___Social recognition___Courageous___Loving
___Happiness___True friendship___Forgiving___Polite
___Inner harmony___Wisdom___Helpful___Responsible
___Honest___Self-controlled
Demographic Questions

What is your date of birth? (Month/Day/Year) ___ ___/___ ___/___ ___

What is your ethnic background?

___ White  ___ African-American

___ Indian-American  ___ Hispanic

___ Native-American  ___ Asian-American

Tribe: ____________  ___ Other (Please specify: ________________)

Have you attended any other colleges besides Loyola?  ___ Yes  ___ No

If yes, for how many semesters? ______

How many semesters have you attended Loyola? ______

What is your academic major (or majors)? ________________________________________

Please use the remaining space on this page to record any comments or questions that you might have.
APPENDIX B
CONSENT FORM
My name is Bradley Fulton and I am a graduate student here at Loyola in the Applied Social Psychology program. I am currently working on my MA thesis and am in need of your assistance.

I am interested in studying students who are making the transition from college to employment. More specifically, I am interested in the activities that students engage in to prepare themselves for employment. This information will be useful in developing techniques to make this transition from college to employment easier for the student.

The questionnaire that I am asking you to complete is only 7 short pages, contains easy-to-answer questions, and should only take about 10 to 15 minutes to complete. Since only the combined results of all the questionnaires are useful to me, your answers will not be singled out and you will not be associated with your answers in any way. Also, the questionnaires will be seen only by me and those involved with this project, so your answers will remain confidential. Everyone's response is an important response. However, if you do not wish to answer a question or portion of the questionnaire, or wish to withdraw from participating at any time, you may do so without penalty. Failure to respond will not affect your relationship with the university in any way. If you have any questions regarding the questionnaire or the project itself, please ask them before you begin. I thank you in advance for your help.

If you understand the above form and are willing to complete this questionnaire, please sign and date this form in the spaces below.

__________________________________________  ________________________________
(signature)  (date)
APPENDIX C

DEBRIEFING FORM
The present study deals with issues relevant to a variety of areas of psychology. These areas include social psychology, educational psychology, and counseling psychology (specifically career counseling). The major topic of this study, higher education, is a topic that has received a great deal of attention from modern researchers. Researchers have studied everything from changes in attitudes and self-perceptions during the first two years of college, to student attrition while in college, to variables affecting college seniors' expectations about returning home. This attention reveals the perceived importance of higher education in many modern societies. One aspect of this perceived importance is the ability of higher education to provide the tools to construct a more personally satisfying life. One factor important in the construction of a more personally satisfying life is the development of a more personally satisfying career.

In general, this study is hypothesizing that individuals who engage in more activities to prepare themselves for a career will have a stronger sense of identity in relation to a career, and will be more decided about their career choice than those who have engaged in lesser amounts of these activities. This in turn should lead to a more satisfying life.

This hypothesis is in part a reflection of the current thinking about the concept career. This thinking suggests that when you choose a career you are really choosing the lifestyle that goes with that career. This hypothesis is also a reflection of the concept value as it was defined by a researcher named Rokeach. This definition portrays values as being either modes of conduct (ways of behaving), or end-states of existence (the long term outcomes of behaviors) that are believed to be socially or personally preferable to other modes of conduct or end-states of being. It seems that to choose a career (lifestyle) and become personally satisfied, one must understand one's own values, and those values that may be in conflict with certain career choices. Since these values are not just ways of behaving, but are also long term outcomes of behaving, choosing a career is really choosing a lifestyle. Exploring these values through certain activities will help individuals understand the lifestyle choice that is best for them.

If you have any additional questions about this study or about this area of research in general, feel free to stop by my offices at DH 602 or DH 675, or call me, Bradley R. Fulton, at (773) 465-0778. Listed below are readings that might help the interested reader understand more about this area of research.


APPENDIX D
DESCRIPTIVE STATISTICS
<table>
<thead>
<tr>
<th>Level of Career Decidedness</th>
<th>Number of years in school</th>
<th>Total</th>
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</thead>
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<td>Flexible/undecided</td>
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<td>Count</td>
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<td>Count</td>
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<tr>
<td>Inflexible/decided</td>
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<td></td>
</tr>
<tr>
<td>Count</td>
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<td>8*</td>
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<td>Expected</td>
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<td>19.5%</td>
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Table 13--Continued

<table>
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<tr>
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<th>3</th>
<th>4</th>
<th>5+</th>
<th>Total</th>
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<td>Count</td>
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<td>62</td>
<td>46</td>
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<tr>
<td>Row%</td>
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<td>9.6%</td>
<td>100%</td>
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<tr>
<td>Column%</td>
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<td>100%</td>
<td>100%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Table%</td>
<td>14.4%</td>
<td>33.2%</td>
<td>24.6%</td>
<td>18.2%</td>
<td>9.6%</td>
<td>100%</td>
</tr>
</tbody>
</table>

*The absolute difference between the count and the expected value for these is greater than 5.5.*

Table 14

**Means and Standard Deviations of PAS and Career Identity by Year in School**

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5+</th>
<th></th>
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<tr>
<td>PAS</td>
<td>34.48</td>
<td>35.81</td>
<td>37.60</td>
<td>38.38</td>
<td>39.00</td>
<td>(6.71*)</td>
</tr>
<tr>
<td></td>
<td>(6.71*)</td>
<td>(7.20)</td>
<td>(6.79)</td>
<td>(7.11)</td>
<td>(6.98)</td>
<td></td>
</tr>
<tr>
<td>Career Identity</td>
<td>6.81</td>
<td>7.11</td>
<td>8.33</td>
<td>8.91</td>
<td>9.28</td>
<td>3.14</td>
</tr>
<tr>
<td></td>
<td>(3.14)</td>
<td>(3.94)</td>
<td>(3.92)</td>
<td>(3.38)</td>
<td>(3.18)</td>
<td></td>
</tr>
</tbody>
</table>

*Standard deviations in parentheses.*
Table 15

Means and Standard Deviations of Career and Academic Values Discrepancies for the Total Sample

<table>
<thead>
<tr>
<th>Value</th>
<th>Career Values Discrepancies</th>
<th>Academic Values Discrepancies</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Standard Deviation</td>
</tr>
<tr>
<td>A sense of accomplishment</td>
<td>3.43</td>
<td>.90</td>
</tr>
<tr>
<td>Ambitious</td>
<td>3.42</td>
<td>.82</td>
</tr>
<tr>
<td>Broad-minded</td>
<td>3.30</td>
<td>.91</td>
</tr>
<tr>
<td>Capable</td>
<td>3.50</td>
<td>.58</td>
</tr>
<tr>
<td>Cheerful</td>
<td>3.02</td>
<td>.89</td>
</tr>
<tr>
<td>A comfortable life</td>
<td>3.21</td>
<td>.89</td>
</tr>
<tr>
<td>Courageous</td>
<td>3.02</td>
<td>.97</td>
</tr>
<tr>
<td>Equality</td>
<td>3.15</td>
<td>.96</td>
</tr>
<tr>
<td>Exciting life</td>
<td>2.83</td>
<td>1.00</td>
</tr>
<tr>
<td>Forgiving</td>
<td>2.96</td>
<td>1.03</td>
</tr>
<tr>
<td>Freedom</td>
<td>3.15</td>
<td>.97</td>
</tr>
<tr>
<td>True friendship</td>
<td>3.20</td>
<td>.94</td>
</tr>
<tr>
<td>Happiness</td>
<td>3.31</td>
<td>.91</td>
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<tr>
<td>Inner harmony</td>
<td>3.01</td>
<td>1.08</td>
</tr>
<tr>
<td>Helpful</td>
<td>3.37</td>
<td>.90</td>
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<tr>
<td>Honest</td>
<td>3.38</td>
<td>.92</td>
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<tr>
<td>Imaginative</td>
<td>3.06</td>
<td>.92</td>
</tr>
<tr>
<td>Independent</td>
<td>3.37</td>
<td>.82</td>
</tr>
<tr>
<td>Intellectual</td>
<td>3.40</td>
<td>.84</td>
</tr>
<tr>
<td>Value</td>
<td>Career Values Discrepancies</td>
<td>Academic Values Discrepancies</td>
</tr>
<tr>
<td>---------------------</td>
<td>-----------------------------</td>
<td>------------------------------</td>
</tr>
<tr>
<td></td>
<td>Mean</td>
<td>Standard Deviation</td>
</tr>
<tr>
<td>Logical</td>
<td>3.33</td>
<td>.90</td>
</tr>
<tr>
<td>Loving</td>
<td>3.15</td>
<td>1.00</td>
</tr>
<tr>
<td>Mature love</td>
<td>2.89</td>
<td>1.03</td>
</tr>
<tr>
<td>Pleasure</td>
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<td>.99</td>
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<tr>
<td>Polite</td>
<td>3.30</td>
<td>.81</td>
</tr>
<tr>
<td>Responsible</td>
<td>3.66</td>
<td>.68</td>
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<tr>
<td>Salvation</td>
<td>2.47</td>
<td>1.21</td>
</tr>
<tr>
<td>Self-controlled</td>
<td>3.42</td>
<td>.81</td>
</tr>
<tr>
<td>Self-respect</td>
<td>3.44</td>
<td>.86</td>
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<tr>
<td>Social recognition</td>
<td>2.84</td>
<td>1.13</td>
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<tr>
<td>Wisdom</td>
<td>3.35</td>
<td>.84</td>
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</tbody>
</table>
Table 16

Means and Standard Deviations of Career and Graduate School Preparation Activities for the Total Sample

<table>
<thead>
<tr>
<th>Activity</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extra-curricular reading/research for potential career</td>
<td>4.04</td>
<td>7.37</td>
</tr>
<tr>
<td>(total months)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extra-curricular reading/research for graduate school</td>
<td>2.52</td>
<td>6.56</td>
</tr>
<tr>
<td>(total months)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Browsed the internet for potential career (total hours)</td>
<td>3.26</td>
<td>8.84</td>
</tr>
<tr>
<td>Browsed the internet for graduate school (total hours)</td>
<td>1.96</td>
<td>6.52</td>
</tr>
<tr>
<td>Talked to faculty/staff about career possibilities (total people)</td>
<td>2.73</td>
<td>3.02</td>
</tr>
<tr>
<td>Talked to faculty/staff about graduate school (total people)</td>
<td>1.09</td>
<td>1.86</td>
</tr>
<tr>
<td>Spoke or met with potential employers (total people)</td>
<td>.98</td>
<td>3.73</td>
</tr>
<tr>
<td>Spoke or met with graduate school officials (total people)</td>
<td>.44</td>
<td>1.55</td>
</tr>
<tr>
<td>Spoke or met with others regarding career possibilities (total people)</td>
<td>2.51</td>
<td>4.47</td>
</tr>
<tr>
<td>Spoke or met with others regarding graduate school (total people)</td>
<td>.56</td>
<td>1.43</td>
</tr>
<tr>
<td>Attended workshops related to career advancement (total number)</td>
<td>.74</td>
<td>1.96</td>
</tr>
<tr>
<td>Attended workshops related to graduate school preparation (total number)</td>
<td>.45</td>
<td>2.24</td>
</tr>
<tr>
<td>Took courses aimed at helping individuals chose a career (total number)</td>
<td>.18</td>
<td>.38</td>
</tr>
<tr>
<td>Activity</td>
<td>Mean</td>
<td>Standard Deviation</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>------</td>
<td>--------------------</td>
</tr>
<tr>
<td>Received formal career counseling (total hours)</td>
<td>.59</td>
<td>3.23</td>
</tr>
<tr>
<td>Mailed letters of inquiry to potential employers (total number)</td>
<td>.91</td>
<td>5.11</td>
</tr>
<tr>
<td>Mailed letters of inquiry to graduate schools (total number)</td>
<td>1.38</td>
<td>5.41</td>
</tr>
<tr>
<td>Mailed out job applications (total number)</td>
<td>.82</td>
<td>3.40</td>
</tr>
<tr>
<td>Mailed out graduate school applications (total number)</td>
<td>.28</td>
<td>1.48</td>
</tr>
<tr>
<td>Had job interviews (total number)</td>
<td>.63</td>
<td>1.64</td>
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<tr>
<td>Had graduate school interviews (total number)</td>
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<td>.34</td>
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<tr>
<td>completed an internship (total hours)</td>
<td>80.17</td>
<td>353.35</td>
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</table>
Table 17

Means and Standard Deviations of the Scale Score Totals for the Total Sample

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<th>Scale</th>
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<th>Standard Deviation</th>
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<tbody>
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<td>Career Values Discrepancies</td>
<td>90.4</td>
<td>15.79</td>
</tr>
<tr>
<td>Academic Values Discrepancies</td>
<td>88.1</td>
<td>16.65</td>
</tr>
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<td>Career Identity</td>
<td>7.9</td>
<td>3.73</td>
</tr>
<tr>
<td>Academic Identity</td>
<td>66.8</td>
<td>11.06</td>
</tr>
<tr>
<td>RSE</td>
<td>32.3</td>
<td>4.76</td>
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<tr>
<td>SWLS</td>
<td>23.4</td>
<td>6.54</td>
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<tr>
<td>NAS</td>
<td>27.6</td>
<td>7.69</td>
</tr>
<tr>
<td>PAS</td>
<td>36.9</td>
<td>7.06</td>
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</tbody>
</table>
REFERENCES


In May of 1993 I received a Bachelor of Arts degree from Saint John's University in Collegeville, Minnesota, majoring in psychology with a philosophy minor and additional concentrations in German and computer science/mathematics. As part of my undergraduate education I studied in Salzburg, Austria in the Fall of 1991. As an undergraduate I tutored students in statistics, taught two sections of an Introduction to Psychology laboratory, acted as a teaching assistant for an Introduction to Psychology class, and investigated the psychological and physiological effects of caffeine on the reaction time of college students for a senior research project.

I am currently enrolled in the Applied Social Psychology program at Loyola University in Chicago, and expect to receive a Master of Arts degree in May of 1998, and a Ph.D. in May of 2000. As part of my graduate education, I worked as a graduate assistant from January of 1996 to May of 1997 for two researchers in the areas of cognitive development and applied social psychology. As part of the assistantship, I had both teaching and research assistant duties. Other graduate research experience includes assisting with the coding process of an AIDS-related meta-analysis, and conducting the current Master of Arts Thesis.

I have been employed at the Institute for Health Services Research and Policy Studies at Northwestern University, off and on, since November of 1995. I took on a permanent position there in October of 1997. I have participated in numerous projects there including: "Impact of Team-Managed/Hospital-Linked Home Care," funded by the National Institute on Aging; "Development and Testing of a Measure of Healthy Caregiving," funded by the AARP Andrus Foundation; "A Randomized Study of the
Impact of a Family Caregiver Training and Support Program on Institutionalized Relatives with Alzheimer's Disease," funded by the Alzheimer's Association; "Evaluation of the Managed Community Care Demonstration," funded by the Retirement Research Foundation; and have assisted in the development of a measure of attitudes towards and exposure to violence in children. The "Development and Testing of a Measure of Healthy Caregiving" has been presented at numerous conferences.
THESIS APPROVAL SHEET

The thesis submitted by Bradley R. Fulton has been read and approved by the following committee:

John Edwards, Ph.D., Director
Associate Professor of Psychology
Loyola University Chicago

Emil Posavac, Ph.D.
Professor of Psychology
Loyola University Chicago

The final copies have been examined by the director of the thesis and the signature which appears below verifies the fact that any necessary changes have been incorporated and the thesis is now given final approval by the committee with reference to content and form.

The thesis is therefore accepted in partial fulfillment of the requirements for the degree of Master of Arts.

April 1, 1998

Date

John D. Edwards

Director's Signature