

ABSTRACT

Title of dissertation: JOB SEARCH BEHAVIORS OF GRADUATING
COLLEGE SENIORS: A TEST OF THE SOCIAL
COGNITIVE MODEL OF CAREER SELF-
MANAGEMENT

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Education

Due to changing employment climate and structure, individuals must become more proactive in the management of their careers (Hesketh, 2001; Russell, 2001). It has become increasingly important to know how to manage career transitions, especially between periods of non-employment and employment. Lent and Brown (2013) proposed a Career Self-Management model that examined the active process of managing one's own career. The purpose of this study is to test the Career Self-Management model by examining the roles that job search support, job search self-efficacy, job search outcome expectations, job search intentions, and conscientiousness play in the prediction of job search behaviors of graduating college seniors ($N = 240$). The study was conducted at two time points, about three months apart, to account for temporal precedence in the prediction of job search behavior. Multiple mediating effects were tested using bootstrapping.

The model accounted for 23% in the prediction of job search behavior, and only job search intention was a direct predictor of job search behavior. The results of multiple

mediation analyses indicated indirect effects of job search intention on the relationship between job search self-efficacy and job search behavior. Job search self-efficacy and job search intention mediated the relationships between job search support and job search behavior, and conscientious and job search behavior. Recommendations for future research and implications for counseling practice were discussed.

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A TEST OF THE SOCIAL COGNITIVE MODEL OF CAREER SELF-
MANAGEMENT

By

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DEDICATION

To my mother, without your perseverance and sacrifice, I would not be here today. Any person might have faltered if they endured what you went through. I love you, and miss you every day.

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Chapter 1: Introduction

In the fields of vocational and organizational psychology, it has been argued that, due to the changing employment climate and structure, individuals must become more proactive in the management of their careers (Hesketh, 2001; Russell, 2001). People can no longer rely on the assurance that they can work for one company for the rest of their lives. Individuals must now learn to be adaptive and flexible, and know how to manage career transitions, especially between periods of non-employment and employment.

King (2004) provides three reasons as to why it has become important for vocational psychology to study career self-management. The first reason is that individuals want to believe they have control over the course and direction of their careers. In this time of job uncertainty, it is important for people to believe that they are able to navigate the uncertainty. Vocational psychologists can help these people to take more control of their careers. The second reason for studying career self-management is that people manage their careers throughout their lives, and it is therefore important to understand the various factors that influence career decision-making, planning, and coping processes. Finally, the study of career self-management allows vocational psychologists to better understand career patterns and trajectories, which can aid them to help their clients' work adjustment and transitions. According to King, theory is necessary to address these three sets of issues. Other writers have also noted the importance of theory as a foundation for understanding and facilitating the career self-management process (Lent & Brown, 2013; Vos & Soens, 2008).

A number of theories have attempted to explain the significance of obtaining paid work. Jahoda's (1981) latent deprivation theory argued that employment fulfills a number of needs—time structure for the day, social interaction, goals and purposes, status and identity—and forces the individual to be active. Likewise, Warr's (1987) vitamin model argued that employment offered such resources as the opportunity for control, opportunity to use a skill, externally generated goals, variety, monetary resources, physical security, social contact, and social position. A loss of these “vitamins” is assumed to affect the person's mental and physical health. Feather (1992) explored how expectancy-value theory could be used to explain employment status and individuals' job search behaviors. *Job search behavior* is defined as a purposive process of initiating and executing a set of actions to find a job (Kanfer, Wanberg, & Kantrowitz, 2001).

From the expectancy-value perspective arose theoretical models like Ajzen and Fishbein's theory of planned behavior that attempts to explain factors that motivate the performance of a behavior (TPB; Ajzen & Fishbein, 1980). The TPB model argues that the decision to perform a behavior is influenced by a number of variables, including attitude, subjective norm, perceived behavioral control, and intention. An *attitude* is the positive or negative evaluation of the behavior (Ajzen & Fishbein, 1980). A *subjective norm* is the perceived social pressure to perform or not perform a behavior (Ajzen & Fishbein, 1980). *Perceived behavioral control* is a person's perceived control over the behavior (Ajzen, 2002). Finally, an *intention* is an indication of how much a person is willing to try, or the amount of effort they are willing to exert, to perform a behavior (Ajzen & Fishbein, 1980). Research on TPB provides support for the prediction that intention partially mediates the relationships of attitude, subjective norm, and perceived

behavioral control to specific behaviors (e.g., exercise, medication adherence, attaining health goals) that are under voluntary control (Armitage & Conner, 2001; Caska, 1998; Hausenblas, Carron, & Mack, 1997; Sutton, 1998; van Hooft, Born, Taris, Fleir, & Blonk, 2005). TPB has also been used as a framework for studying job search behavior (Caska, 1998; van Hooft, Born, Taris, van der Flier, & Blonk, 2004; van Hooft, & De Jong, 2009).

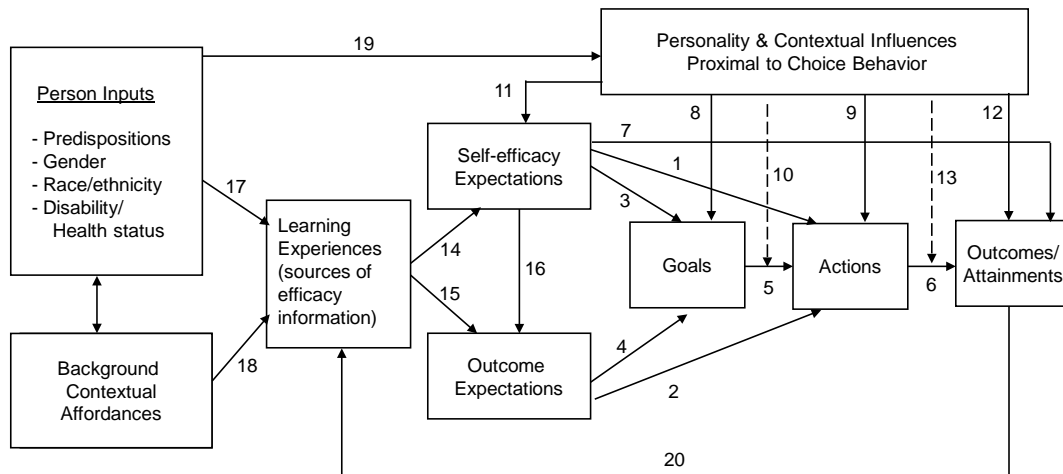
Researchers have also developed job search models with foundations in social cognitive theory (Zikic & Saks, 2009). To date, there has, however, been limited effort to examine the job search process specifically from the perspective of social cognitive career theory (SCCT; Lent, Brown, & Hackett, 1994). Recently, Lent and Brown (2013) introduced the concept of *adaptive career behaviors* to explain the behavioral processes that individuals utilize to self-direct their career. Lent and Brown defined adaptive career behaviors as "behaviors that people employ to help direct their own career (and educational) development, both under ordinary circumstances and when beset by stressful conditions." Their *career self-management theory* is an extension of Lent et al.'s (1994) SCCT. Much like Bandura's (1986) general social cognitive theory, SCCT takes a more domain-specific approach to explaining the factors that may influence a person's decision-making processes, but it is restricted to the academic and career pursuit domains.

In SCCT, the factors of contextual supports and barriers, goals, self-efficacy, and outcome expectations are assumed to affect peoples' decisions and actions in seeking and pursuing a career. Contextual supports and barriers are environmental conditions that can affect the goals and actions that people pursue. Goals refer to one's *intention* to engage

in a particular behavior or to produce a certain outcome (Bandura, 1986). *Self-efficacy* is one's belief in his or her ability to perform particular behaviors or courses of actions (Bandura, 1986). Finally, *outcome expectations* refer to one's beliefs about the consequences of performing particular behaviors (Lent et al., 1994).

Lent and Brown's (2013) career self-management model (see Figure 1) represents an effort to extend SCCT's focus on choice-*content* issues (e.g., the type of work activities or fields that people seek to pursue) to the explanation of how people employ career *process* or coping skills, such as those involved in exploring career options, making career decisions, navigating career transitions, and coping with career setbacks.

Figure 1. Model of Career Self-management



Model of career self-management. Adapted from "Toward a unifying social cognitive theory of career and academic interest, choice, and performance," by R.W. Lent, S.D. Brown, & G. Hackett, 1994, *Journal of Vocational Behavior*, 45, p. 93. Copyright 1993 by R.W. Lent, S.D. Brown, & G. Hackett. Reprinted with permission.

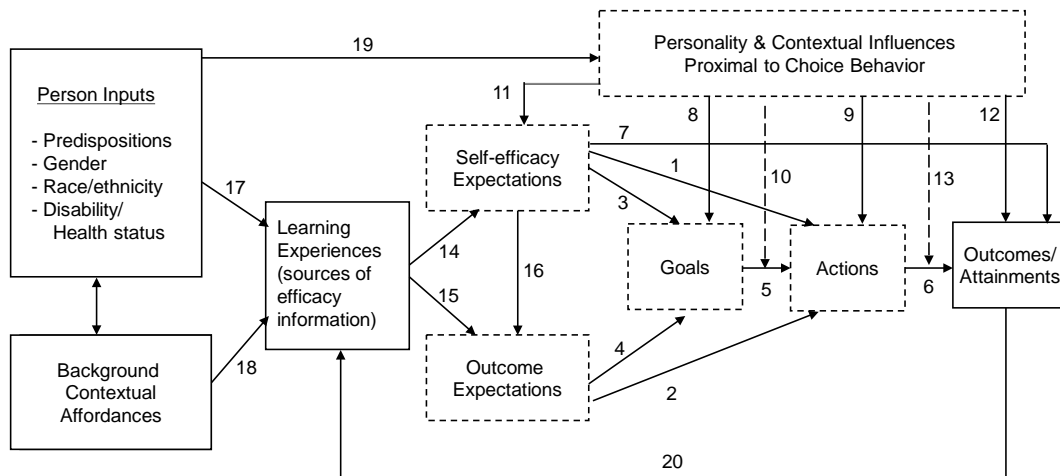
In the current study, the model will be used to examine how graduating students manage the job search process (see Figure 2). In the vocational domain, *self-management* can be viewed as, “an effort by an individual to exert control over certain aspects of his or her decision making and behavior” (Frayne & Geringer, 2000, p. 361).

As shown in Figure 2, the application of the career self-management model in this study will include the following variables: job search self-efficacy, job search support, job search outcome expectations, job search intentions, and job search behaviors. *Job search self-efficacy* is defined as an individual's confidence in his or her ability to successfully perform a variety of job search tasks (Wanberg, Watt, & Rumsey, 1996). *Job search support* is defined as the social support received, in the context of job search, from people perceived as important to the individual. Borrowing from research on outcome expectation in other domains (Betz & Voyten, 1997; Lent et al., 1994), *job search outcome expectations* are defined as beliefs about the consequences of engaging in job search behaviors. *Job search intention* is conceived as the intention to engage in job search behaviors in order to obtain a job.

Similar to TPB, it is proposed that job search intentions will predict job search behaviors. It is also expected that intentions will partially mediate the relationships of job search self-efficacy, job search support, and job search outcome expectations to job search behavior. The career self-management model also maintains that certain personality variables can affect how people attempt to manage their career behaviors. In the present study, the personality trait of conscientiousness will be added to the model. Research has shown that certain personality variables, such as conscientiousness, are related to the job search process (Boudreau, Boswell, Judge, & Bretz, 2001; Kanfer et al.,

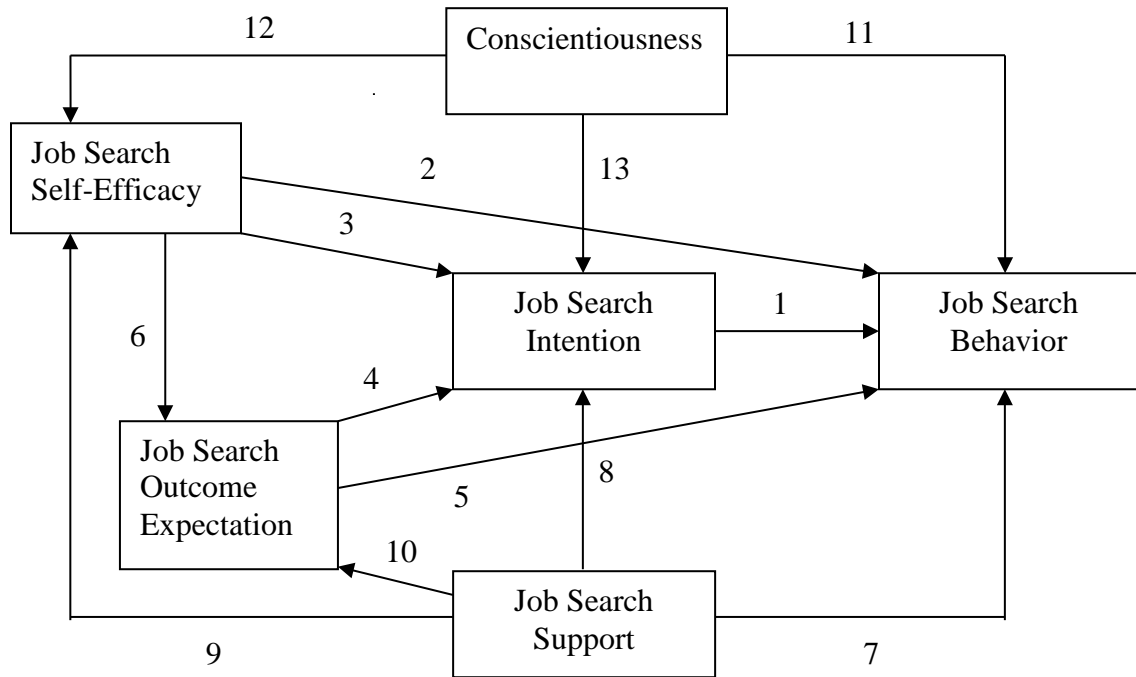
2001). The job search self-management model has yet to be tested in its entirety, although certain of its hypothesized relationships have been examined in prior studies (Brown, Lent, Telander, & Tramayne, 2011; Brown, Tramayne, Hoxha, Telander, Fan, & Lent, 2008; Cupani, de Minzi, Perez, & Pautassi, 2010; Rogers, Creed, & Glendon, 2008).

Figure 2. Extraction of the Career Self-Management Model as Applied to the Job Search Process (in dashes)



Model of career self-management. Adapted from "Toward a unifying social cognitive theory of career and academic interest, choice, and performance," by R.W. Lent, S.D. Brown, & G. Hackett, 1994, *Journal of Vocational Behavior*, 45, p. 93. Copyright 1993 by R.W. Lent, S.D. Brown, & G. Hackett. Reprinted with permission.

Figure 3. Career Self-Management Model as Applied to the Job Search Process



Statement of the Problem and Hypotheses

Each year, college seniors prepare to graduate and enter the job market. Due to the current unemployment crisis, it can be difficult for these students to find any job, let alone one that they prefer. Unemployment has been shown to have a negative impact on an individual's mental health (Fragar, Stain, Perkins, et al., 2010; Paul, Geithner, & Moser, 2009; Paul & Moser, 2006), social interactions (Winkelmann, 2009), family relationships (Liem & Liem, 1988), quality of life (Hultman, Hemlin, & Hornquist, 2006), subjective well-being (Galatzer-Levy, Bonanno, & Mancini, 2010), and physical health (Leana & Feldman, 1988). University career centers play a valuable role in helping students transition from college to work, although many students do not utilize the services of these centers and instead mount job searches on their own. There has been limited research in vocational or organizational psychology focusing on factors that

influence the job search success of these graduating seniors (Brown, Cober, Kane, & Levy, 2006; Saks, 2006).

The purpose of this study is to examine this job search process from the perspective of the SCCT career self-management model. In particular, the study will examine the social cognitive predictors of job search behavior, exploring the nature of the relations among the predictors as well as how well they, collectively, account for job search intentions and job search behavior. The following hypotheses and research question are proposed:

Hypothesis 1: Job search intention will be positively correlated with job search behaviors (Path 1).

Hypothesis 2: Job search self-efficacy will be positively correlated with job search behaviors (Path 2).

Hypothesis 3: Job search self-efficacy will be positively correlated with job search intentions (Path 3).

Hypothesis 4: Job search outcome expectation will be positively correlated with job search intentions (Path 4).

Hypothesis 5: Job search outcome expectations will be positively correlated with job search behaviors (Path 5).

Hypothesis 6: Job search self-efficacy will be positively correlated with job search outcome expectation (Path 6).

Hypothesis 7: Job search support will be positively correlated with job search behavior (Path 7).

Hypothesis 8: Job search support will be positively correlated with job search intentions (Path 8).

Hypothesis 9: Job search support will be positively correlated with job search self-efficacy (Path 9).

Hypothesis 10: Job search support will be positively correlated with job search outcome expectation (Path 10).

Hypothesis 11: Conscientiousness will be positively correlated with job search behaviors (Path 11).

Hypothesis 12: Conscientiousness will be positively correlated with job search self-efficacy (Path 12).

Hypothesis 13: Conscientiousness will be positively correlated with job search intention (Path 13).

Hypothesis 14: After accounting for the other predictors in the model, unique variance in the prediction of job search behaviors will be explained by:

- a) Conscientiousness.
- b) Job search support.
- c) Job search intention.
- d) Job search self-efficacy.
- e) Job search outcome expectations.

Hypothesis 15: Job search intention will partially mediate the relationship between job search support and job search behavior.

Hypothesis 16: Job search intention will partially mediate the relationship between job search self-efficacy and job search behavior.

Hypothesis 17: Job search intention will partially mediate the relationship between job search outcome expectation and job search behavior.

Hypothesis 18: Job search intention will partially mediate the relationship between conscientiousness and job search behavior.

Hypothesis 19: Job search outcome expectation will partially mediate the relationship between job search self-efficacy and job search behavior.

Hypothesis 20: Job search outcome expectation will partially mediate the relationship between job search support and job search behavior.

Hypothesis 21: The job search self-management model will produce good overall fit to the data.

Research Question 1: How well does a simplified model fit the data compared to the basic self-management model shown in Figure 2b?

Chapter 2: Literature Review

This chapter will first provide a broad overview of social cognitive career theory (SCCT), focusing on its central constructs. Second, research relevant to the new SCCT career self-management model will be reviewed. Since the model as a whole has not as yet been formally tested, the review will involve studies that have examined subsets of social cognitive predictors in relation to job search outcomes. Finally, an alternative, simpler model will be proposed, based on the review of research. This model will be used as a comparison against which to test the target self-management model.

Social Cognitive Career Theory

Social cognitive theory is concerned with the interaction of behavioral, cognitive, and environmental factors that influence psychosocial functioning within specific life domains (Bandura, 1986). Social cognitive theory has been studied in a wide variety of domains, including vocational psychology. Derived from Bandura's (1986) social cognitive theory, social cognitive career theory (SCCT; Lent et al., 1994) was developed to address various aspects of academic and career development. SCCT incorporates personal, contextual, and behavioral variables that can affect the development of vocational interests, career choice goals and actions, and work performance. Lent et al. originally proposed three models of SCCT focused on interest, goals, and performance. SCCT models of work satisfaction (Lent & Brown, 2006) and career self-management (Lent & Brown, 2012) have recently been added. Each of the models includes an overlapping set of constructs.

Cognitive-person elements of SCCT. Three main components of SCCT have been addressed extensively in the career literature: self-efficacy, outcome expectations, and

goals. Self-efficacy is defined as a person's judgments of his or her ability to organize and execute behaviors required to perform certain tasks, while outcome expectations involve judgments about the likely outcomes of performing particular behaviors (Bandura, 1986). Lent et al. (1994) posited that self-efficacy helps to determine a person's choice of activities and environments as well as cognitive processes, amount of effort, persistence, and emotional reactions to obstacles. Self-efficacy plays an important role in a person's goal-directed behavior (Bandura, 1986). Individuals are more likely to set and pursue goals that are consistent with how confident they feel about their abilities, the expected outcome of pursuing the goal, and the available resources to accomplish the goal (Lent & Brown, 2006). In vocational psychology, self-efficacy has often been explored in relation to interests, choice goals, and performance behavior.

Outcome expectations involve beliefs about the consequences of performing particular behaviors (Lent et al., 1994). Such imagined consequences can have a bearing on whether one decides to perform the behavior or pursue the goal or interest. According to Lent and Brown (2006), there are several types of outcome expectations: an anticipated social outcome is defined as how the outcome may benefit others, a material outcome involves a physical reward like financial gain, and a self-evaluative outcome involves how the individual judges the outcome's impact on the self.

Another of the central components of social cognitive theory is goals. Bandura (1986) defined a goal as the *intention* to engage in a particular behavior or to produce a certain outcome. In SCCT, goals are similarly separated into two types: (a) choice-content goals, which address domain-specific activities or tasks that a person would like to pursue, and (b) performance goals, which address the level or quality of domain-

specific task performance. Choice goals motivate individuals to pursue their preferred domain-specific educational and vocational activities, while performance goals help to determine the level of success that people achieve at educational and vocational tasks (Lent & Brown, 2006). Research on SCCT's choice model, which bears much structural similarity to the new career self-management model, has generally provided support for the hypotheses that self-efficacy and outcome expectations are each predictive of choice goals (e.g., see Sheu et al.'s, 2010, meta-analysis).

Contextual and personality factors. SCCT also highlights the roles of contextual, or environmental, factors in career development. These factors have usually been operationalized as supports or barriers in research on SCCT's choice model. Findings show that, in contrast to SCCT's original hypotheses, supports and barriers tend to relate to choice goals mainly indirectly through self-efficacy and outcome expectations, rather than directly (Sheu et al., 2010). SCCT also maintains that personality can affect various aspects of career behavior. For example, conscientiousness, a personality trait, is seen as playing important roles in behavior that requires setting and implementing goals (Lent & Brown, 2012). A conscientious person is described as being responsible, organized, careful, and reliable (Golberg, 1992). Conscientious individuals appear to put more effort and commitment into tasks, and are less likely to give up (Poropat, 2009), traits that would benefit self-management. Conscientiousness has been found to correlate significantly and positively with academic performance (Poropat, 2009), work performance (Barrick & Mount, 1991), motivation (Judge & Ilies, 2002), and self-directed learning (Lounsbury, Levy, Park, Gibson, & Smith, 2009).

In a recent study that is directly relevant to the new SCCT career self-management model, Rogers, Creed, and Glendon (2008) studied the career planning and exploration behavior (choice actions) of 414 Australian high school students. The authors included self-efficacy, outcome expectations, goals, personality, and social support as predictors of choice actions. Results indicated that social support was significantly and positively correlated with goals ($r = .31$), outcome expectations ($r = .32$), self-efficacy ($r = .30$), and the choice behaviors of career exploration ($r = .27$) and planning ($r = .27$). Social support also played a moderating role between goals and career planning and exploration. A high level of social support coupled with a high level of goal setting was associated with greater career planning and exploration. Conscientiousness was found to correlate moderately with self-efficacy, outcome expectations, and choice goals. Students who reported more conscientiousness also reported greater career exploration.

Social Cognitive Model of Career Self-Management: Application to Job Search Behavior

As noted earlier, Lent and Brown's (2012) career self-management (CSM) model was based on the desire to focus "on more micro and meta processes and mechanisms that direct career behavior within and across the specific fields and jobs people enter." The CSM model is an extension of SCCT that focuses on agentic behaviors involved in individuals' career development. Although individuals cannot control the high rates of unemployment at a macro level, they are able to control processes in searching for a job at a personal or micro level. Lent and Brown's model focuses on the individual's capabilities (such as preparation, information gathering, job search, and decision making)

and environmental resources (such as social support and role models) that facilitate particular career tasks and challenges, such as searching for a job or exploring careers. Lent and Brown call these capabilities *adaptive career behaviors* because they enable positive functioning and resiliency that can be important both under normative conditions as well as in times of adversity.

For the purpose of this study, the CSM model by Lent and Brown (2012) will be applied to address factors that are assumed specifically to influence job search behaviors (Figure 2). In this job search application of the career self-management model, successful job search behavior is hypothesized to depend on a number of factors such as job search support, job search self-efficacy, job search outcome expectations, job search intentions, and conscientiousness. To date, no study has tested the full SCCT model of job search behaviors. However, it is possible to review studies that have examined one or more of the variables in this model.

Job search behaviors. The process of searching for a job can be viewed as goal-directed behavior (Saks, 2005), requiring a series of necessary tasks, such as gathering information, going to interviews, and evaluating job alternatives (Saks, 2006). Kanfer et al. (2001) described job search behavior as a purposive self-regulatory process of initiating and executing actions for the purpose of finding a job. A job search can therefore be seen as executing the required behaviors to obtain employment (e.g., searching listings for job openings, sending out resumes, contacting potential employers). The job search behavior itself depends on the search situation, and defining the success of the behavior depends on the search criteria (Saks, 2006). In the context of the SCCT self-

management model, job search behaviors are adaptive career behaviors that enable people to foster their own career development.

In the current age of technological advances, knowing the right methods to search for a job becomes increasingly important (Hesketh, 2001; Jome & Phillips, 2013). Advertisers may rely less on print ads and opt for postings on online job sites. LinkedIn, an online business networking site, provides an avenue for people to learn about job openings through word of mouth. Many job seekers therefore must have a certain level of competence with the use of technology to know how to navigate the job search process (Jome & Phillips, 2013). Executing the necessary job search behaviors can influence the outcome of a person's employment status (i.e., getting hired or not) as well as employment quality (van Hooft, Born, Taris, & Fleir, 2004).

Job search behaviors include *preparatory* and *active* components (Blau, 1994). In the preparatory job search process, the individual may gather search information, identify potential leads, and do the necessary research to arrive at an informed decision (Saks, 2006). The active job search process, such as sending out resumes and attending interviews, arguably reflects the person's commitment to the job search (Blau, 1994). Research has shown that the job search behaviors a person performs correlate with the success of obtaining a job (Brown et al., 2006; Saks & Ashforth, 2000).

Saks and Ashforth (2000) studied 212 college seniors in the final semester before their graduation. These students indicated that they had not gotten a job yet. The study was conducted at two time points, with the completion of the questionnaires in the second time point (T2) occurring four months after the first time point (T1). Saks and Ashforth used the job search behavior measure developed by Blau (1994) that distinguished

between preparatory and active job search behaviors. Employment status was measured by a single item that asked if the participant had accepted a job offer. Results indicated that preparatory and active job search behaviors were significantly and positively correlated at T2 with the number of job interviews ($r = .26$ and $r = .53$, respectively), the number of job offers ($r = .25$ and $r = .25$, respectively), and employment status ($r = .29$ and $r = .26$, respectively). The findings of hierarchical regression analyses also indicated that change in job search behaviors (i.e., using T2 job search behaviors to account for T2 outcomes, while controlling for T1 job search behaviors) accounted for 30% of the variance in job interviews, 11% of the variance in number of job offers at T2, and 13% of the variance in employment status. Based on the results, the researchers argued that the change in job search behaviors was related to employment outcomes.

Brown et al. (2006) conducted a study with 180 graduating students from a Midwestern university. Job search behavior in this study was also conceived as having preparatory and active components as defined by Blau (1994). The surveys were administered at two time points, the first time point (T1) was 3-4 months before graduation, while the second time point (T2) was 2-3 months after graduation. The researchers also measured job search outcomes, such as the number of follow-up interviews received and the number of job offers. Results indicated that job search behaviors were significantly and positively correlated with the number of follow-up interviews ($r = .37$) and the number of job offers ($r = .19$). Finally, in a meta-analysis of 21 studies, Kanfer et al. (2001) found that job search behavior was modestly related to employment status ($r = .21$), number of offers received ($r = .28$), and duration of the search process ($r = -.14$).

In an ideal situation, one might argue that performing the required job search behaviors will invariably lead to interviews and eventual employment. Unfortunately, however, the outcomes of the search process are not entirely within the individual's control. Thus, the performance of job search behaviors is likely to improve one's chances of finding a satisfying job, but not guarantee it. It should not be surprising, therefore, that research has revealed varying (small to large) relationships between job search behaviors and employment outcomes. Still, job search behaviors appear to offer a viable route to employment. It is thus important to examine factors that may influence engagement in job search behaviors. According to the SCCT career self-management model, a number of factors, both social and cognitive, can influence a person's job search behaviors. These factors include social support, self-efficacy, outcome expectations, goals, and personality. The following sections will review each of these factors in relation to the job search process.

Job search support. Research has shown that social support has beneficial effects on the mental health of the receiving individual (Vinokur & van Ryn, 1993). Social support is also considered important in coping with unexpected events (Lazarus & Folkman, 1984) and it can be a vital resource for those who experience major obstacles in their lives. The components of social support include perceived available support, actual support received, a network of relationships, and information received via these networks (Slebarska, Moser, & Gunnesch-Luca, 2009; Vinokur & van Ryn, 1993). The right support has the potential to boost the individual's self-esteem, validate her or his feelings and experiences, provide a sense of belongingness, and reduce negative feelings (Caplan, Vinokur, Price, & van Ryn, 1989). Sources of social support can include family

members, friends, or others in the same situation as the individual (Dahling & Thompson, 2009).

Social support specifically in relation to the job search process has mainly been explored within the domain of unemployment. Having some sort of support while job hunting can be beneficial to a person's mental well-being. Although the sample size was small ($N = 35$), Mallinckrodt and Fretz (1988) found that the mere perception of social support was associated with an increase in positive self-esteem ($r = .56$) and lower levels of psychological symptoms of stress ($r = -.39$) in unemployed individuals. Slebarska et al. (2009) conducted a study of 104 unemployed individuals to explore the possible correlation between social support and job search behaviors. Social support was conceptualized as containing emotional, valuable, informational, and tangible elements, and the sources were from parents, partners, friends, children, acquaintances and people from church. Each social support question contained two parts: received support and adequacy of support. Results indicated that received social support was significantly and positively correlated with job search behaviors ($r = .26$), but adequacy of social support was not.

Wanberg et al. (1996) conducted a study with 205 individuals who were unemployed and looking for a job. The study was conducted at two time points. Time 1 (T1) surveys (which included measures of support and job search behavior) were sent to people who had been laid off for about two months. Time 2 (T2) data collection occurred about three months after T1 data collection, with only employment status (employed or not employed) being assessed. In this study, job search behavior was assessed by the frequency with which a person engaged in certain job search tasks. Job search support

was defined as the reassurance of worth, that is, the perception that others acknowledge one's skills and abilities. Results indicated that job search support at T1 was significantly and positively related to employment commitment ($r = .34$) and job search behavior ($r = .44$) at T1 and explained 18% of the variance in employment status at T2. In a meta-analysis of 15 studies, Kanfer et al. (2001) found a correlation of .24 between job search support and job search behaviors.

In sum, job search support, or lack thereof, can play an important role in a person's job search process. Negative support may adversely affect a person's physical and psychological well-being, while positive support can motivate an individual to continue the search process. Although job search support has been studied with unemployed individuals, the process of looking for a job can also be relevant to graduating college students. There is little research on job search support among students who are about to graduate and looking for a job.

Job search self-efficacy. According to Wanberg et al. (1996), job search self-efficacy refers to an individual's confidence in his or her ability to successfully perform a variety of job search tasks. In a study of 301 unemployed individuals where job search behavior was defined as the frequency of job seeking, the authors found that job search self-efficacy was not significantly correlated either with job search intentions or job search frequency. Van Hooft et al. (2004) conducted a longitudinal study of job search behavior among employed and unemployed Dutch people. At T1, 714 individuals participated in the study. A total of 480 participants from T1 responded to questionnaires four months later (T2), providing a 67% return rate. Results for the unemployed participants indicated that job search self-efficacy at T1 was significantly correlated with

job search behavior at T2 ($r = .16$). Results for employed participants indicated that there was a nonsignificant relationship between job search self-efficacy and job search behavior.

Other research has also examined the relationship between job search self-efficacy and job search behaviors. Saks and Ashforth (1999) recruited 212 college seniors who were in their last semester of college and had not found a job. Participants were given measures at two time points, T1 was the initial contact and T2 was four months later. Participants were given measures at T1 that assessed job search self-efficacy and preparatory and active job search behaviors. Participants' employment status was assessed at T1 and T2. Saks and Ashforth found that job search self-efficacy was significantly and positively correlated with preparatory job search behavior ($r = .37$) as well as active job search behavior ($r = .28$) at T2. In addition, job search self-efficacy was significantly correlated with employment status at both T1 ($r = .27$) and T2 ($r = .17$).

Fort, Jacquet, and Leroy (2011) proposed a model in which employment goals, defined differently from the SCCT goals construct, were hypothesized to fully mediate the relationship between job search self-efficacy and job search behavior. Employment goals were assessed by asking about the type of jobs participants were looking for (e.g. contract, full time, geographic area, branch of industry). A total of 100 people participated in the study; seventy eight were unemployed, fifteen were employed, three were students, and four did not indicate employment status. Results indicated that job search self-efficacy was not significantly correlated with employment goal, and employment goal was not significantly correlated with job search behavior. However, job search self-efficacy was significantly and positively correlated with job search

behaviors ($r = .52$). A hierarchical regression analysis indicated that job search self-efficacy predicted job search behavior beyond the effect of goals. In Kanfer et al.'s (2001) meta-analysis of 28 studies that included job search self-efficacy and job search behavior, results indicated that the correlation between the two variables is small to medium in size ($r = .27$). Thus, there appears to be a relationship between job search self-efficacy and job search behavior, but there is lack of clarity as to whether the relationship is direct or mediated by other variables. The present study is designed to clarify the link between job search self-efficacy and job search behaviors.

Job search outcome expectations. A search on PsychInfo, ERIC, and Medline did not yield studies involving job search outcome expectations. Therefore, the inclusion of outcome expectations will represent a novel aspect of the proposed study. Based on research on SCCT's model of choice-content, job search outcome expectations are expected to relate to the other social cognitive predictors as well as to job search behavior.

Job search intentions. Job search intentions have played an important role in research on job search behaviors. The job search intention construct has mainly been studied within the context of the theory of planned behavior (TPB). As mentioned earlier, TPB proposes that job search intention mediates the relationship of attitudes, subject norms, and perceived behavioral control to job search actions. Research on TPB and job search has found associations between job search intentions and job search behavior (Caska, 1998; Lin, 2010; van Hooft et al., 2004).

Van Hooft et al. (2004) conducted a longitudinal study with 714 Dutch and non-Dutch participants from a temporary employment agency. Job search intention and other

predictors (including self-efficacy, which was conceived as perceived behavioral control), were administered at T1. The job search behavior scale was administered four months later. Results indicated that job search intentions did not correlate with job search self-efficacy, but were moderately correlated with job search behavior ($r = .47$). Van Hooft et al. (2005) also found that job search intentions were not significantly correlated with job search self-efficacy, but were correlated with job search behavior ($r = .31$). Other studies, on the other hand, show a significant relationship between job search intention and job search self-efficacy.

Wanberg, Glomb, Song, and Sorenson (2005) conducted a longitudinal study to explore whether job search intentions mediated the relationship between job search self-efficacy and job search behavior. The study assessed unemployed job seekers' experience every two weeks for a total of 10 time waves. The study involved a total of 903 unemployed job seekers in the state of Minnesota; participants completed an average of 4.95 surveys for the duration of the study. Results indicated that job search self-efficacy was significantly and positively associated with higher job search intentions over the 10 time periods (from .30 to .41). Results also supported the hypothesis that job search intentions fully mediated the relationship between job search self-efficacy and job search behaviors.

Zikic and Saks (2009) also proposed a model of job search behavior that incorporated elements of social cognitive theory as the framework. The authors hypothesized that job search self-efficacy would be positively related to job search intentions, and that job search intentions would mediate the relationship between job search self-efficacy and job search behavior. The authors conducted a longitudinal online

study with participants from a government sponsored site that many Canadians visit to conduct their job search. At Time 1 (T1), there were 795 participants. The Time 2 (T2) assessment was conducted eight months later, but with only 162 participants from T1. Results indicated that job search self-efficacy at T1 was positively related to job search intention ($r = .43$) at T1 and job search behaviors ($r = .25$) at T2. However, job search intentions were not found to mediate the relationship between job search self-efficacy and job search behavior.

In sum, intentions have been studied both as a direct motivator of job search behavior and as a mediator of the relationship between self-efficacy and job search behavior. While intentions have often been found to relate to job search behavior, the findings regarding intentions as a mediator of self-efficacy/search behavior relations have been mixed. The present study will attempt to clarify the relationship between job search intentions and job search self-efficacy and also examine the role that job search intentions play relative to other social cognitive variables (e.g., outcome expectations, supports) in the job search process.

Conscientiousness. Because of its presumed role in the self-regulation of behavior, conscientiousness is seen as a key personality variable in SCCT's model of career self-management. In a study of job search behaviors, Boudreau et al. (2001) found that the five factors of personality accounted for 3% of the variance in the prediction of job search behaviors. Conscientiousness alone, however, was not significantly correlated with job search behavior.

Turban, Stevens, and Lee (2009) posited that conscientiousness would be related to job search outcomes through metacognitive activities and positive emotions.

According to the authors, metacognitive activities are “self-regulation activities that involve setting goals, developing plans, and monitoring and analyzing progress toward goal accomplishment” (p. 555). Job search outcomes were defined as including the following elements: resumes submitted, first interviews, second interviews, and final offers. Data were collected from 327 graduating undergraduates and MBA students. In support of the hypotheses, conscientiousness had a positive direct effect on metacognitive activities (.17) which, in turn, had a direct effect on the number of resumes submitted (.18) and the number of first interviews (.28), but not on the number of second interviews or job offers. However, the researchers raised concerns about the reliability of their measures and also noted that some participants may not have kept an accurate count of the number of resumes that they had submitted to potential employers.

Several other studies have found positive relations of conscientiousness to job search behaviors (Boswell, Roehling, & Boudreau, 2006; Brown et al., 2006; Wanberg et al., 1996) and also to the speed of finding a job (Uysal & Pohlmeier, 2011). Meyers and Houssemand (2010), on the other hand, found that participants with more conscientiousness were less likely to find a job. The researchers recruited 384 newly unemployed people and followed them up at six months and twelve months. At six months, 314 people of the original 384 were able to be reached. Those with higher conscientiousness were less likely to be reemployed, although the significant effect was quite small ($\beta = -.06, p < .05$). The researchers hypothesized that those higher in conscientiousness might be more demanding about their job options and thus be less likely to take a job offer as soon as it was offered. The researchers did not analyze the relation of conscientiousness to reemployment at the 12-month follow-up.

In a longitudinal study of unemployed Kansas residents that included conscientiousness and several of the social cognitive predictors, Wanberg et al. (1996) hypothesized that conscientiousness, job search self-efficacy, and job search support would each correlate with job search behaviors. Three hundred and one unemployed individuals completed a set of measures at Time 1 (T1). Two months later, a follow-up survey was sent to T1 participants to assess their employment status, and this time 245 individuals completed the survey, representing an 81% return rate. Results revealed that, at T1, job search support was not significantly correlated with job search self-efficacy or conscientiousness, though it was strongly correlated with job search intention ($r = .73$). In addition, job search self-efficacy at T1 was not significantly correlated with job search intentions or job search behaviors at T1, but it was significantly correlated with conscientiousness at T1 ($r = .27$). The authors also reported that job search behavior at T1 was not a significant predictor of reemployment at T2.

Finally, Kanfer et al.'s (2001) meta-analysis located 11 studies that had related conscientiousness and job search behavior. Their findings indicated a medium-sized relationship between conscientiousness and job search behavior ($r = .38$). Thus, the existing literature tends to suggest that conscientiousness is related to job search behavior, though this relation has not been observed in all studies. Because of its behavioral aspects (e.g., goal setting, planning, organizing, persisting), conscientiousness may, theoretically, be most readily amenable to counseling interventions compared to other big five personality traits. The current study will therefore include conscientiousness in its examination of the job search process.

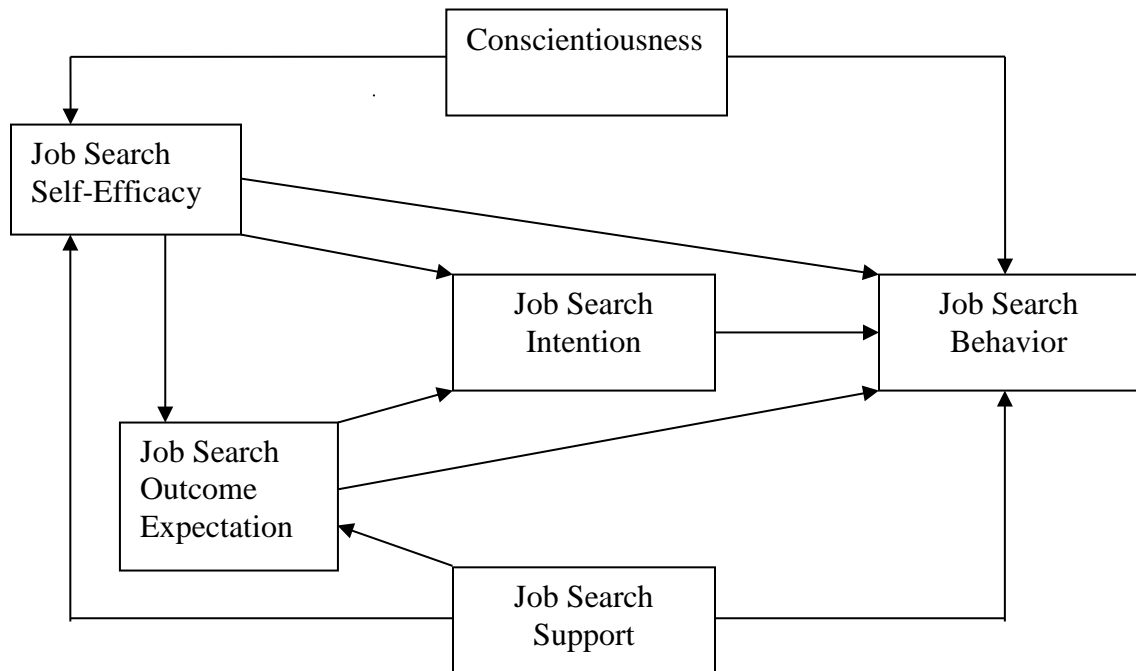
Summary. While individual studies have often produced mixed results, greater confidence can be placed in meta-analyses that synthesize findings across studies. In the job search literature, Kanfer et al.'s (2001) meta-analytic findings indicated that the social cognitive and personality variables tend to produce small to medium-sized relations with job search behavior, and that job search behavior is related, although modestly, with employment outcomes, such as employment status and number of job offers. Job search outcome expectations do not appear to have been studied as yet. The proposed study therefore intends to further clarify the joint and individual contributions of job search support, job search self-efficacy, job search outcome expectation, job search intentions, and conscientiousness to the prediction of job search behavior.

Test of an Alternative Model

According to some structural equation model writers (MacCallum & Austin, 2000; Martens, 2005; McDonald & Ho, 2002), it is important to test target structural models against alternative models. Therefore, the target job search self-management model shown in Figure 2 will be compared with the alternative model in Figure 3. The latter, nested within the target model, will eliminate two model paths: (a) the path from conscientiousness to job search intentions and (b) the path from job search support to job search intentions. The link between conscientiousness and job search intentions has not received much inquiry, although results from one study indicated that conscientiousness was only weakly related to metacognitive activities (a proxy for intentions; Turban et al., 2009). The link between support and job search intentions has also not received much study. Although Wanberg et al. (1996) did find the two variables to be strongly

interrelated, in tests of SCCT's choice model, the direct relations between supports and choice goals are often negligible (Sheu et al., 2010).

Figure 4. Alternative Job Search Self-Management Model



Overall Summary

Changes in the work environment highlight the need for individuals to play an active role in managing their own career behavior. SCCT has shown utility in understanding *content* (or what) aspects of career development, such as the types of activities that people choose to pursue (Sheu et al., 2010). With the new career self-management model, Lent and Brown (2012) have focused on *process* (or how) aspects of career behavior, that is, the means by which people direct their behavior or respond to developmental and situational challenges at work. This model can be used to study how people negotiate the job search process. The proposed study will examine the roles that job search support, job search self-efficacy, job search outcome expectations, job search

intentions, and conscientiousness play in the prediction of job search behaviors. The goals of this study are: (a) to examine the correlations between the SCCT predictors and job search behavior, (b) to explore the relations among the predictor variables, (c) to test whether each variable accounts for significant variance in the prediction of job search behaviors after accounting for all of the other variables in the model, and (d) to determine whether the proposed model provides an adequate fit to the data.

Chapter 3: Method

Participants and Procedure

Participants for this study were college seniors of various demographic backgrounds from a Mid-Atlantic university who planned to graduate within the Spring semester. In order to determine the required sample size for the study, a number of variables were considered. Researchers have used the following formula to determine the number of parameters in a path model: $p^* = p(p + 1)/2$, where p represents the number of variables (Bentler & Chou, 1987). The number of parameters for this study, with six variables, would therefore be 21. Bentler and Chou have recommended that a ratio of sample size to the number of parameters should be at least 10:1 for structural model testing. Based on the recommended ratio, this study required a minimum N of 210 participants.

This longitudinal study was conducted at two time points. The purpose of collecting data at two time points was to examine the utility of the predictors in accounting for future (as opposed to only concurrent) job search behavior. By separating the predictors from the dependent variable in time, this allowed for a test of temporal precedence in the predictor-criterion relationship (Rosenthal & Rosnow, 1991). A follow-up survey was conducted to assess participants' job search behaviors. According to K. Juhl (personal communication, October 29, 2012), program manager for the career center at a Mid-Atlantic university, students at the university usually began their job search at the beginning of the last semester of their academic program and they tended to find a job in the same semester. Based on the information that the program manager provided, T1 data collection occurred approximately one month into the last semester

before students graduated, which in this study occurred in the last week of January. T2 data collection occurred approximately one month before the students' indicated graduation date, the last week of April, thus providing approximately a three month time span between T1 and T2 assessments. In anticipation of participation drop-off between T1 and T2, an over-sampling was needed. Accounting for the possibility of at least a 30% drop-off in participation at T2, an *N* of 310 participants was targeted at T1.

In anticipation of a 15% response rate, which is not uncommon for online surveys (Manfreda et al., 2008), it was decided that a listserve of 2000 potential graduating seniors should be requested from the university's Office of the Registrar (OTR). OTR instead provided a list of 5438 potential graduating seniors. An email was sent to all 5438 to request participation at T1 (see Appendix J). The recruitment email explained that the researcher was interested in studying the experiences of students who were in the process of searching for jobs after graduation. Those who already had a job lined up after graduation or who had alternative post-graduation plans (e.g., taking time off to travel, do volunteer work, attend graduate or professional school, work only part-time, or remain with their current employer) were screened out of participation.

All potential participants were directed to an online survey site where they were asked to provide consent (see Appendix H) before completing the survey. The consent form informed participants about the purpose of the survey, as well as the fact that they needed to complete a second survey three months later. Although this information may have deterred some potential participants, those who did choose to participate in the study were alerted to expect a follow up survey. Participants were asked to enter their name and email address (see Appendix I) so that they could be contacted to complete the

second part of the study. They were informed that their contact information would not be linked to their data in any way, except to ensure that they completed both T1 and T2 surveys. Potential participants were informed that at the end of the first survey, they would be given the opportunity to enter into a raffle to win one of ten \$25 gift certificates. For T1, participants were informed that the survey would take 15-25 minutes to complete. They were then administered the demographics questions, the Mini-Markers conscientiousness scale, the Perceived Social Support for Job Search Activity scale, the Job Search Self-Efficacy scale, the Job Search Intention scale, and the Job Search Outcome Expectation scale.

Of the 5438 college seniors who were sent email invitations to participate in the study, a total of 604 individuals either began or completed the survey at T1, providing an 11% response rate. Data cleaning procedures involved eliminating individuals who accessed the survey but did not begin the study ($n = 16$, 3% of total), individuals who participated more than one time ($n = 7$, 1%), individuals who indicated that they did not intend to search for a job ($n = 108$, 18%), and individuals who did not complete the full survey ($n = 76$, 13%). Because the online survey required that participants answer all questions before moving to the next section, there was no missing data among participants who completed the full survey. However, participants could close their browsers before completing the survey. After data cleaning, the final N for T1 was 397 participants.

At T1, 397 participants indicated that they intended to look for a job before graduation. Participants' average age was 21.85 ($SD = 2.32$). There were 138 males (35%) and 258 females (65%). The majority of the students were White/Caucasian ($n =$

273, 69%), followed by Asian/Pacific Islanders ($n = 63$, 16%), Black/African American ($n = 24$, 6%), Biracial ($n = 12$, 3%), Hispanic/Latino/Latina ($n = 11$, 3%), Other ($n = 11$, 3%), and 3 (1%) did not respond. Students' academic majors are listed in Appendix M (pp. 64). While still in school, 193 (49%) of the participants indicated that they were working full or part time. Appendix N (pp. 67) lists the occupations participants indicated they would be interested in entering.

One hundred and twenty five participants indicated that they did not intend to look for a job in the Spring semester that this study was conducted. They were therefore not allowed to participate in the study, but they were given the option to complete a number of demographics questions. Of the 125, 66 (53%) indicated that they already have a full time job lined up after they graduate, 13 (10%) indicated that they planned to stay with their current employer after graduation, 17 (14%) indicated that they planned to look for a new full-time job after they graduate, 10 (12.5%) indicated that they planned to look for a new part-time job after they graduate, 40 (32%) indicated that they planned to continue their education after graduation (e.g. attend graduate school), and 6 (5%) indicated other plans.

At the T2 assessment period, participants ($N = 397$) from T1 were sent an email to request participation again. Participants were directed to an online survey site where they were required to provide consent (see Appendix H) before completing the survey. Participants were informed that the survey would take 5-10 minutes to complete. They were administered some new questions (see Appendix K), along with the Job Search Behavior scale. At the end of the survey, participants were given the opportunity to enter into a raffle for one of ten \$25 gift certificates (see Appendix L).

Two hundred and sixty of the 397 T1 participants (65%) accessed the survey at T2. Again, data cleaning procedures involved eliminating individuals who accessed the survey but did not begin the study (0%), individuals who participated more than one time (0%), and individuals who did not complete the full survey ($n = 20$, 8%). Two hundred and forty of the 397 T1 participants (61%) completed the measures at T2. Aside from the demographics questions, there were no missing data for the Job Search Behavior scale.

Participants ranged between the ages of 20 and 50 (mean = 21.85; $SD = 2.60$). There were 76 men (32%) and 164 women (68%). The majority ($n = 171$, 71.3%) of participants were Caucasian, with 15(6.3%) African Americans, 33(13.8%) Asian/Pacific Islanders, 5(2.1%) Hispanic, 9(3.8%) Biracial, and 7(3%) who rated their race/ethnicity as Other. Between T1 and T2, 99 (41%) participants indicated that they found a job, 139 (58%) participants indicated they had not found a job, and 2 (1%) participants did not respond. Appendix N (pp. 67) provides a list of participants' academic majors, and the career field that they would be interested in entering. Participants averaged 2.81 job interviews ($SD = 4.98$), and received an average of 1 job offer ($SD = 1.33$). Participants were given the option to indicate how long it took them to find a job. Of those who responded ($n = 95$), participants indicated that it took them an average of 8.2 weeks ($SD = 7.59$) to find a job. Of the 95 participants who found a job, 83 (87%) indicated that their job was full time, while 12 (13%) indicated that their job was part time. Seventy one (75%) out of the 95 respondents indicated that their job was related to their college degree, while 24 (25%) indicated that it was not. Appendix O (pp. 70) lists the occupations of those who found a job. On a scale of 1 (very dissatisfied) to 10 (very

satisfied), participants who found a job rated an 8.18 ($SD = 1.59$) for the level of satisfaction with the job they found.

Measures

At T1, a set of demographics questions (see Appendix A) gathered information on the students' age, gender, race/ethnicity, and academic major. Potential participants were then asked if they had been employed before, whether or not they had already found a full time job waiting for them after graduation, and if so what field their job was. If they had not found a job yet, participants were asked whether or not they intended to do so and, if not, what their alternative plans were. If potential participants indicated that they did not intend to look for a job after graduation, then they were directed to a page thanking them for considering the study. Those who were not thereby screened out of the study were then administered the Mini-Markers conscientiousness scale, the Perceived Social Support for Job Search Activity Scale, the Job Search Self-Efficacy scale, the Job Search Intention scale, and the Job Search Outcome Expectation scale.

At T2, participants again were asked their name and academic major in order for the researcher to link T1 data with T2 data. Participants were informed that their personal information was linked with their data. Participants were asked a few other questions in relation to their job search: the number of interviews they completed since the T1 study, the number of job offers they received since the T1 study, and whether or not they were currently employed. If participants were currently employed, they were asked when into the semester they found the job, how long it took them to find the job, whether the job was for part or full time, their job title, whether or not the new job related

to their college degree, any benefits that came with the job, and their level of satisfaction with the job. Participants were administered the Job Search Behavior scale.

Job Search Behavior. Preparatory and active job search behaviors were assessed using the Job Search Behavior scale (see Appendix B) developed by Saks and Ashforth (2000). The scale is a modified version of Blau's (1994) 12-item job search behavior scale. Saks and Ashforth (2000) added two items to represent the information gathering process of job search, thus increasing the number of items in the scale to 14. Although other scales exist that attempt to tap into an individual's job search behaviors, the Job Search Behavior scale remains popular due to its relevant content. Even with the proliferation of online job sites that allow an individual to upload their resume to be viewed by potential employers, an active job search process is still important. Potential employers still post job vacancies in newspapers, journals, and to professional associations. Individuals must still prepare their resumes, fill out a job application, and conduct interviews with potential employers. It is possible that people may be using a different process to conduct their job searches. More research would therefore be necessary to assess the effectiveness of such new job search behaviors.

The modified Job Search Behavior scale contains eight items representing preparatory job search behaviors and six items representing active job search behaviors. Items 1 and 2 have been modified, with the additional phrase "online job site," to reflect the contemporary use of technology in looking for a job. The scale is assessed on a 5-point Likert-type scale, where 1 = Never (0 times); 2 = Rarely (1-2 times) 3 = Occasionally (3-5 times); 4 = Frequently (6-9 times); and 5 = Very Frequently (at least 10 times). Participants are asked to report the frequency with which they have carried out

each behavioral task each week within the past three months. A sample item is, "read the help wanted/classified ads in a newspaper, journal, professional association, or online job site." When calculating the scale, items were summed to create a total score and then divided by the number of items (14) to create an overall mean item score.

Saks and Ashforth (2000) conducted a longitudinal study of the job search behaviors of 384 college seniors in commerce, computer science, and engineering majors. Participants at time 1(T1) were administered individual differences, global self-esteem and job search self-efficacy, and job search behaviors measures. Four months later, participants at time 2 (T2) were administered job search behaviors and outcome questionnaires. Saks and Ashforth found the internal consistency estimate for preparatory job search behaviors was .72 and .74 at T1 and T2, respectively. They found the internal consistency values for active job search behaviors were .76 and .69, respectively. The authors found that preparatory and active job search behaviors were not correlated with self-esteem or job search anxiety, but were correlated with the number of job offers, number of job interviews, and employment status. Job search self-efficacy was correlated with preparatory job search behavior ($r = .37$) and active job search behavior ($r = .19$) at T1. At T2 though, job search self-efficacy correlated significantly with preparatory job search behavior ($r = .26$) but not with active job search behavior ($r = .06$). Saks (2006) found that preparatory job search behaviors were correlated significantly with the number of job interviews ($r = .21$) but not with number of job offers, employment status, person-job fit, or person-organization fit. Active job search behaviors were correlated significantly with the number of job interviews ($r = .55$) and

the number of job offers ($r = .27$) but not with employment status, person-job fit, or person-organization fit.

For the current study, preparatory and active job search behavior will be combined into one scale. This study is concerned with whether participants initiated job search behaviors, and less on whether they prepared for or actively searched for a job. Other researchers (Brown et. al, 2006; van Hoof et. al., 2004) have taken a similar approach with the job search behavior scale. In the current study, the correlation of the two (preparatory and active search) subscales was .76, and internal consistency reliability of the combined Job Search Behavior scale was .89.

Job Search Support. Job search support was measured using the eight-item Perceived Social Support for Job Search Activity Scale (PSSJSAC; Rife & Belcher, 1993; see Appendix D). Although there are many social support scales, few focus exclusively on job search support. Participants were asked to rate each item on a 5-point Likert-type scale from 1 (strongly disagree) to 5 (strongly agree). An example of the items is "when I am turned down for a job interview, I receive positive encouragement for continuing my job search efforts." The items were summed to create a total score for the scale and then divided by the number of items (8) to create an overall mean score. In a study of 54 unemployed workers, Rife and Belcher reported that the internal consistency estimate of the measure was .84. Job search support was found to significantly and positively correlate with job search intensity, defined as the number of hours spent searching for a job, and the number of employer-related job contacts. In the current study, the internal consistency reliability of this scale was .78.

Job Search Self-Efficacy. Job search self-efficacy was assessed using the 10-item Job Search Self-Efficacy scale (see Appendix E) developed by Saks and Ashforth (1999). Respondents were asked to rate their level of confidence in successfully performing certain job search tasks on a 10-point Likert-type scale from 1 (not at all confident) to 10 (totally confident). The items were summed to create a total score for the scale and then divided by the number of items (10) to create an overall mean score. A sample item from the scale is, "prepare resumes that will get you job interviews." In a study of 384 graduating college seniors, Saks and Ashforth reported the internal consistency of the measure was .87. Saks and Ashforth (1999) found the Job Search Self-Efficacy scale correlated positively with self-esteem ($r = .47$), grade-point average ($r = .15$), preparatory job search behavior ($r = .37$), active job search behavior ($r = .28$), and job search intensity ($r = .26$). Cote, Saks, and Zikic (2006) found that job search self-efficacy was correlated significantly with job search clarity, defined as having a clear idea of the type of job or work a person desired, but not the number of job interviews. In the current study, the internal consistency reliability of this scale was .84.

Job Search Outcome Expectations. The Job Search Outcome Expectation scale (JSOE, see Appendix G) was developed for use in this study by the present author and his advisor, Dr. Robert Lent, an expert on SCCT measurement. The items were developed with three types of expected outcomes in mind: social, material, and self-evaluative (Bandura, 1986). A total of nine items were developed for this measure. Participants were asked to rate each item on a 5-point Likert-type scale, from 1 (not true) to 5 (definitely true). The measure started with the prompt, "If I were to look actively for work over the next month, I expect the following things will happen." Two sample items

for the measure were "I will feel good about myself," and " I will likely find a decent paying job." The items were summed to arrive at a total score and then divided by the number of items (9) to create an overall mean score. In the current study, the internal consistency reliability of this scale was .88.

Prior to inclusion in hypothesis-testing, the scale was pilot-tested on a small sample of unemployed individuals ($N = 100$) who indicated that they intended to look for a job. Participants were recruited from an online marketing service (Amazon Mechanical Turk, www.mturk.com). They ranged in age from 18 to 60 ($M = 29.45$, $SD = 9.16$), and included 56 males and 44 females. Participants were mainly Caucasian ($n = 77$, 77%), African American ($n = 6$, 6%), Asian/Pacific Islander ($n = 8$, 8%), Hispanic/Latino/Latina ($n = 6$, 6%), biracial ($n = 2$, 2%), and Other ($n = 1$, 1%). For this pilot test, the internal consistency reliability of this scale was .92. The scale underwent a second pilot test with 243 unemployed individuals who indicated that they intended to look for a job. Participants were again recruited from an online marketing service (Amazon Mechanical Turk). Participants in this study ranged in age from 18 to 67 ($M = 30.66$, $SD = 10.90$). There were 119 (49%) males and 123 females (51%). Caucasians ($n = 187$, 77%) represented the majority of the participants, with 18 (7%) African Americans, 18 (7%) Asian/Pacific Islanders, 2 (1%) Native Americans/Indigenous People, 9 (4%) Hispanic/Latino/Latina, 5 (2%) biracials, and 4 (2%) Others.

An exploratory factor analysis was conducted on the second pilot test data (see Table 1). A principal axis factor analysis with oblimin oblique rotation is recommended in situations where there is a possibility that factors are correlated (Fabrigar, Wegener, MacCallum, & Strahan, 1999). Eigenvalues, scree plots, percentage of variance, and

interpretability criteria were assessed to determine the most plausible factor structure of the scale. Items that loaded at least moderately (.40) on a given factor were retained (Fabrigar et al., 1999).

Table 1. Job Search Outcome Expectation Items and Factor Loadings in the Second Pilot Sample

Item	Factor
6. My friends and family members will think that I am on my way to success.	.78
9. I will continue to be motivated to look for a job.	.76
1. I will feel good about myself.	.74
8. I will receive leads to other potential job openings.	.73
3. I will likely find a decent paying job.	.72
4. I will receive job interviews with potential employers.	.71
7. My friends and family will know that I am working hard to find a job.	.68
2. My friends and family members will appreciate me.	.68
5. I will know that I did my best in looking for work.	.61

N = 243. Kaiser-Meyer-Olkin index = .86. A single-factor solution accounted for 51% of the variance.

Results in Table 1 indicate that all items loaded highly on a single factor. A single factor solution accounted for 51% of the total variance. The internal consistency of the scale for the pilot study was .90. As shown in Table 2, there was a large correlation between JSOE and JSSE ($r = .65$), a medium correlation between JSOE and JSI ($r = .39$), a large correlation between JSOE and PSSJSAS ($r = .53$), and a medium correlation between JSOE and conscientiousness ($r = .35$).

Table 2. Correlations, Means, and Internal Consistency Estimates for the Job Search Outcome Expectation Scale (JSOE) in the Second Pilot Sample

Scale	1	2	3	4	5	<i>M</i>	<i>SD</i>	α
1. Self-Efficacy	--					5.94	1.76	.90
2. Outcome Exp.	.65**	--				3.75	.72	.90
3. Support	.47**	.53**	--			3.22	.74	.81
4. Conscientiousness	.35**	.35**	.22**	--		7.01	1.34	.91
5. Intention	.54**	.39**	.18**	.25**	--	2.73	.71	.89

N = 243. Self-Efficacy = Job search self-efficacy; Outcome exp. = Job search outcome expectation; Support = Job search support; Intention = Job search intention. ** $p < .01$.

Job Search Intentions. Ajzen and Fishbein (1980) proposed that it was important for intention and behavior measures to correspond appropriately in order for the former to predict the latter. Job search intention was therefore assessed using the Job Search Behavior scale developed by Saks and Ashforth (2000). The Job Search Intention scale is a modified version of Blau's (1994) 12-item job search behavior scale. Saks and Ashforth (2000) added two items to represent the information gathering process of job search, thus increasing the number of items in the scale to 14. The modified scale contains eight items representing preparatory job search intentions and six items representing active job search intentions. Items 1 and 2 have been modified, with the additional phrase "online job site," to reflect the current technological choice of looking for a job. The scale is assessed on a 5-point Likert-type scale, where 1 = Never (0 times); 2 = Rarely (1-2 times) 3 = Occasionally (3-5 times); 4 = Frequently (6-9 times); and 5 = Very Frequently (at least 10 times). Participants were asked to indicate the frequency with which they intended to carry out each behavioral item each week within the next three months. A sample item is, "read the help wanted/classified ads in a newspaper, journal, professional association, or online." When calculating the scale, items were summed to create a total score and then divided by the number of items (14) to create an overall mean score.

Van Hooft et al. (2004) also used the Job Search Behavior scale items to measure job search intentions. The researchers conducted a longitudinal study with 714 participants who had worked or were still working for a temporary employment agency. Job search intentions and other predictor measures were administered at T1. Four months

later, job search behavior was administered at T2. The internal consistency value of job search intentions was found to be .91. Results indicated a moderate correlation between job search intentions and job search behavior ($r = .47$), and a small correlation between job search intentions and finding a job ($r = .17$). Job search intentions did not correlate with job satisfaction, a finding that was counter to the researchers' hypothesis. Van Hooft et al. (2005) also found that job search intentions did not correlate with trait procrastination, a finding that was contrary to their hypothesis of a significant negative relationship.

The instructions for Job Search Intentions was modified to ask participants about their *intention* to engage in the behavioral tasks each week within the next three months (see Appendix F). For the current study, the internal consistency reliability of this scale was .83.

Conscientiousness. The big five model of personality proposes that there are five basic personality factors: extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience (Palmer & Loveland, 2004). Mini-Markers is a scale developed by Saucier (1994; see Appendix C) to assess the five personality attributes. This scale is a shortened version of Goldberg's Unipolar Big-Five Markers (1992) containing 100 unipolar adjective markers. The Mini-Markers consists of 40 unipolar adjectives rated on a 9-point Likert-type scale, from 1 being "extremely inaccurate" to 9 being "extremely accurate." Each personality dimension is assessed with an 8-item subscale. Each subscale contains both negatively worded and positively worded items. The negatively worded items are reverse scored, summed with positively worded items and divided by eight, producing a mean score for each factor. Only the conscientiousness

scale items were used in this study. A person scoring high on conscientiousness would be considered planful, organized, and efficient while a person scoring low on this subscale would be considered disorganized and sloppy. Sample items from the conscientiousness subscale include “organized” and “careless”. The Mini-Markers conscientiousness subscale has produced internal consistency reliability estimates of .81 to .90, which are comparable to the reliability estimates of the longer Goldberg version of the subscale (Saucier, 1994).

Palmer and Loveland (2004) found that the Mini-Markers had stronger criterion, convergent, and discriminant validities in measurements of the big five personalities compared to Goldberg’s (1992) measure. In a sample of 129 undergraduates, Palmer and Loveland correlated the Goldberg and Mini-Markers scales with four criteria: gender, age, life satisfaction, and emotional intelligence. Results indicated that the Goldberg and Mini-Markers conscientiousness scale produced the following significant correlations, respectively, with life satisfaction and emotional intelligence: .30 and .24, and .30 and .20. Only the Mini-Markers conscientiousness scale was significantly correlated with age ($r = .20$). Gender was not significantly correlated with either conscientiousness scale. The Mini-Marker conscientiousness scale produced a .75 correlation with the Goldberg scale. In the current study, the internal consistency reliability of this scale was .77.

Data Analyses

The data was evaluated for missing values. Due to the design of the study, where participants were asked to complete all items before moving to the next set of questions, there were very little missing data. Missing data occurred when participants decided to

close their browsers before completing the full survey. Participants who did so generally failed to complete one or more full scales and were, therefore, eliminated from the study.

Descriptive statistics was computed to examine the distributional properties of scale scores (e.g., skew, kurtosis). Differences between participants completing measures at both T1 and T2 versus those who completed measures only at T1 were examined. A multivariate analysis of variance (MANOVA) will be conducted comparing participants who completed only phase 1 of the study versus individuals who completed both phases of the study. To test hypotheses 1 to 13, bivariate correlations were performed to assess the interrelations among job search behaviors, conscientiousness, job search support, job search self-efficacy, job search outcome expectations, and job search intentions.

To test hypotheses 14-21 and the research question, structural equation modeling (SEM) was conducted using bootstrapping. The proposed and alternate models were subjected to path analyses using the matrices of the observed variables. Goodness of fit indices were conducted on each of the models. The indices used to determine goodness of fit were: χ^2 , Comparative Fit Index (CFI), Standardized Root Mean Square Residual (SRMR), and Root Mean Square Error of Approximation (RMSEA). A non-significant χ^2 would indicate that the model adequately fits the data. A CFI value of .95 or above, an SRMR value of .08 or lower, and a RMSEA score of .06 or lower would suggest that the model provides good fit to the data (Hu & Bentler, 1999). The chi-square difference test was used to compare the fit of the target and alternate models.

Chapter 4: Results

Data analyses were conducted on the sample of 240 participants using the SPSS version 20 statistical package in conjunction with the AMOS version 20 program for path analysis. Preliminary analyses determined how best to handle any missing data. A multivariate analysis of variance (MANOVA) was conducted comparing participants who completed only time 1 (T1) of the study versus individuals who completed both time 1 and time 2 (T2). An assessment of means, standard deviations, skew, and kurtosis was conducted to ensure the data were normally distributed. Hypotheses 1-13 were then addressed using correlational analyses. Path analyses using bootstrapping were examined to test the mediation hypotheses (14-20). Chi-square difference tests were then conducted on the main and alternative models to determine which one offered a better fit to the data. Finally, supplemental analyses were conducted.

Preliminary Analyses

Descriptive statistics were computed for each of the six variables measured in this study of 240 participants. The mean, standard deviation, correlations, skew, and kurtosis of each of the scales are presented in Table 3. Using Cohen's (1988) guidelines, correlation coefficients indicating the strength of the relationship between measures were interpreted as small ($r = .10$ to $.29$), medium ($r = .30$ to $.49$), or large ($r > .50$). All scales appeared to fall within the normal range of skew and kurtosis.

Table 3. Means, Standard Deviations, and Correlations Among Predictor and Criterion Variables

Variable	1	2	3	4	5	6	<i>M</i>	<i>SD</i>	Skew.	Kurt.
Time 1										
1. Self-Efficacy							6.14	1.44	.11	-.28
2. Outcome Exp.	.54**						3.83	.60	-.45	.72
3. Support	.44**	.42**					3.50	.62	-.20	-.01
4. Conscientious	.22**	.14*	.05				7.25	.94	-.65	-.11
5. Intention	.35**	.20**	.12	.13*			2.36	.52	.48	.73
Time 2										
6. Behavior	.16*	.16*	.03	-.03	.45**	-	2.14	.61	.93	1.96

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Self-Efficacy = Job Search Self-Efficacy; Outcome Exp. = Job Search Outcome Expectation;

Support = Perceived Social Support for Job Search Activity Scale; Conscientious =

Conscientiousness; Intention = Job Search Intention; Behavior = Job Search Behavior. Bootstrap estimates are based on 5,000 bootstrap samples.

In the original sample of 397 participants who took the survey at T1, 157 (39.5%) did not complete the T2 assessment; 240 participants completed both T1 and T2 of the study. Thus, there was missing data for the 157 participants who did not complete the job search behaviors measure at T2. Such procedures as full information maximum likelihood (FIML) can be utilized to deal with the missing data. However, in order to utilize the FIML method, the data loss pattern should be missing at random. Little's (1988) missing completely at random (MCAR) test produced a significant chi-square value ($\chi^2 = 77.92, df = 49, p < 0.005$), suggesting that the data loss was not missing at random. FIML was, therefore, not used to compensate for the missing data. Instead, the hypothesis-testing analyses were based on the portion of the sample with complete data ($N = 240$).

Because a substantial number of T1 participants did not complete the T2 assessment, an effort was made to determine whether the T2 dropouts differed significantly from those who completed both assessments. Specifically, a multivariate

analysis of variance was conducted on the five measures at T1 (job search intention, job search self-efficacy, job search outcome expectation, job search support, and conscientiousness). This analysis produced a significant omnibus F value (3.55, $p < .01$; Wilk's Lambda = .96), indicating that the completers and dropouts differed on at least one of the variables. Univariate analyses of variance revealed that the two groups differed significantly only on Intention (see Table 4; $F = 7.08$, $p < .01$), with those who completed only T1 reporting on average higher job search intentions than those who completed both the T1 and T2 assessments; the effect size was significant but small ($d = .27$). Thus, the dropouts may have been more committed to the job search process than were the T1-T2 completers.

Table 4. Means, Standard Deviations, and Tests of Between-subjects Effects at T1 Between Participants Who Completed T1 and T2 Measures Versus Those Who Completed T1-only Measures

	Time	<i>N</i>	<i>M</i>	<i>SD</i>	Tests of Between-Subjects Effects		
					<i>F</i>	Sig.	Cohen's <i>d</i>
Self-Efficacy	T1-only	157	6.13	1.71	.01	.98	.06
	T1 & T2	240	6.14	1.44			
Outcome Exp.	T1-only	157	3.92	.67	1.84	.18	.14
	T1 & T2	240	3.83	.60			
Support	T1-only	157	3.40	.55	2.42	.12	.16
	T1 & T2	240	3.50	.62			
Conscientiousness	T1-only	157	7.17	1.13	.55	.46	.06
	T1 & T2	240	7.25	.94			
Intention	T1-only	157	2.53	.71	7.08	.01	.27
	T1 & T2	240	2.36	.52			

Support = Job Search Support; Self-Efficacy = Job Search Self-Efficacy; Intention = Job Search Intention; Outcome Exp. = Job Search Outcome Expectation.

Test of Hypotheses

The first 13 hypotheses were tested using bivariate correlations. These hypotheses are reproduced below, along with the obtained correlation corresponding to each of them.

Hypothesis 1: Job search intention will be positively correlated with job search behaviors (Path 1); $r = .45, p < .01$. Hypothesis 1 is supported.

Hypothesis 2: Job search self-efficacy will be positively correlated with job search behaviors (Path 2); $r = .16, p < .05$. Hypothesis 2 is supported.

Hypothesis 3: Job search self-efficacy will be positively correlated with job search intentions (Path 3); $r = .35, p < .01$. Hypothesis 3 is supported.

Hypothesis 4: Job search outcome expectation will be positively correlated with job search intentions (Path 4); $r = .20, p < .01$. Hypothesis 4 is supported.

Hypothesis 5: Job search outcome expectations will be positively correlated with job search behaviors (Path 5); $r = .16, p < .05$. Hypothesis 5 is supported.

Hypothesis 6: Job search self-efficacy will be positively correlated with job search outcome expectation (Path 6); $r = .54, p < .01$. Hypothesis 6 is supported.

Hypothesis 7: Job search support will be positively correlated with job search behavior (Path 7); $r = .03, p > .05$. Hypothesis 7 is not supported.

Hypothesis 8: Job search support will be positively correlated with job search intentions (Path 8); $r = .12, p > .05$. Hypothesis 8 is not supported.

Hypothesis 9: Job search support will be positively correlated with job search self-efficacy (Path 9); $r = .44, p < .01$. Hypothesis 9 is supported.

Hypothesis 10: Job search support will be positively correlated with job search outcome expectation (Path 10); $r = .42, p < .01$. Hypothesis 10 is supported.

Hypothesis 11: Conscientiousness will be positively correlated with job search behaviors (Path 11); $r = -.03, p > .05$. Hypothesis 11 is not supported.

Hypothesis 12: Conscientiousness will be positively correlated with job search self-efficacy (Path 12); $r = .22, p < .01$. Hypothesis 12 is supported.

Hypothesis 13: Conscientiousness will be positively correlated with job search intention (Path 13); $r = .13, p < .05$. Hypothesis 13 is supported.

The above correlations offer support for Hypotheses 1-6, 9-10, and 12-13.

However, job search support was not significantly correlated with either job search behavior or job search intention, implying lack of support for Hypotheses 7 and 8.

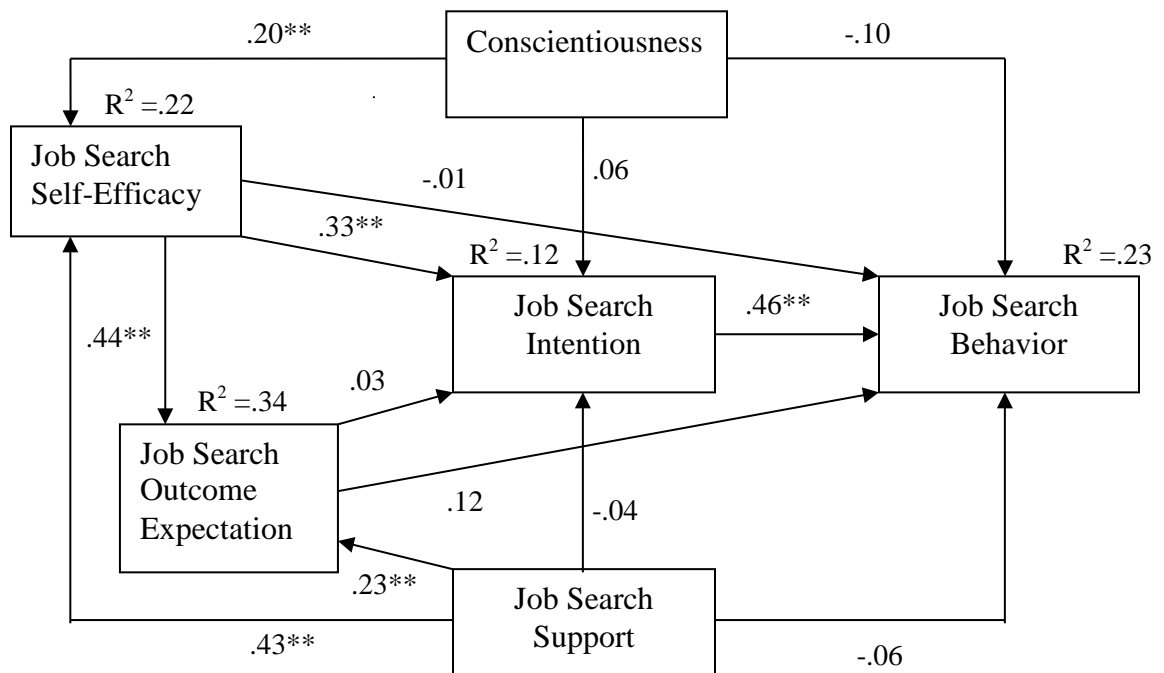
Likewise, Conscientiousness was not significantly correlated with job search behaviors, thus failing to support Hypothesis 11.

Hypothesis 14 proposed that after accounting for the other predictors in the model, unique variance in the prediction of job search behaviors will be explained by:

- a) Conscientiousness.
- b) Job search support.
- c) Job search intention.
- d) Job search self-efficacy.
- e) Job search outcome expectations.

A path analysis was conducted to test Hypotheses 14a-e. Since there was evidence of multivariate non-normality (Mardia's coefficient = 8.76, critical ratio = 6.93), the path analysis employed bootstrapping. Bootstrapping counteracts normality violations through modeling the sample population by repeatedly drawing samples of size N with replacement from the dataset, thus yielding an empirical sampling distribution (Baraldi & Enders, 2013; Bollen & Stine, 1990). Figure 4 presents the path coefficients testing the unique predictive utility of each of the above variables. As can be seen, only job search intentions explained unique variance in the prediction of job search behavior. These findings thus offer support for Hypothesis 14c but not for Hypotheses 14a, 14b, 14d, or 14e. This pattern suggests that the relation of some of the independent variables to job search behavior may be mediated by job search intentions. These mediational possibilities, and the overall fit of the model to the data, were tested.

Figure 5. Standardized Parameter Estimates for the Target Model



* = $p < .05$. ** = $p < .01$.

Mediator Hypotheses

Hypotheses 15-20 address the concept of statistical mediation in predicting job search behavior. The traditional approach to testing mediation, represented by Baron and Kenny (1986), argued that three conditions need to be met in order for mediation to occur. First, the independent variable needs to relate significantly to the presumed mediator (path a). Second, the independent variable needs to relate significantly to the dependent variable (path c). Third, the mediator needs to relate significantly to the dependent variable (path b). If all three conditions are met, full mediation would occur if the relation of the independent variable to the dependent variable approaches 0 when controlling for the mediator. Partial mediation would occur if the relation of the independent variable and the dependent variable is reduced but still significantly greater than 0 when the mediator is controlled.

A more precise and currently popular approach to test for statistical mediation is to employ the bootstrapping technique (Kline, 2011). Specifically, the indirect effects in the target model (Figure 4) were examined using 5,000 bootstrap samples and the 95% confidence interval (Hayes, 2009). The results, organized by hypothesis, are displayed in Table 5.

Table 5. Bootstrap Estimates of Unstandardized Indirect Effects on Job Search Behavior

Hyp #	Independent and mediator variables	Dependent Variable	β^a	SE	95% CI ^b	
					Lower	Upper
15	PSSJSAS → JSI →	JSB	-.016	.032	-.086	.043
Alt Support	PSSJSAS → JSSE → JSI →	JSB	.063	.020	.031	.110
16	JSSE → JSI →	JSB	.065	.019	.032	.107
17	JSOE → JSI →	JSB	.012	.037	-.052	.094
18	Con → JSI →	JSB	.016	.021	-.021	.061
Alt Conscient	Con → JSSE → JSI →	JSB	.019	.007	.008	.038
19	JSSE → JSOE →	JSB	.022	.017	-.010	.061
20	PSSJSAS → JSOE →	JSB	.026	.023	-.008	.088

Con = Conscientiousness; JSI = Job Search Intention; JSB = Job Search Behavior; JSSE = Job Search Self-Efficacy; JSOE = Job Search Outcome Expectation; PSSJSAS = Job Search Support; Alt Support = alternate support pathway; Alt Conscient = alternate conscientiousness pathway.

^aBootstrap estimates are based on 5,000 bootstrap samples.

^bBias corrected 95% confidence intervals that exclude zero (shown in boldface) indicates a statistically significant indirect effect ($p < .05$).

Hypothesis 15: Job search intention will partially mediate the relationship

between job search support and job search behavior. Results in Table 5 indicate that job search intention does not mediate the relationship between job search support and job search behavior ($\beta = -.016$, CI = $-.086$ to $.043$). Hypothesis 15 is therefore not supported. On the other hand, mediation exists if we explore the alternate pathway involving support, that is, from job search support to job search self-efficacy, job search self-efficacy to job search intention, and job search intention to job search behavior ($\beta = .063$, CI = $.031$ to $.110$).

Hypothesis 16: Job search intention will partially mediate the relationship

between job search self-efficacy and job search behavior. Results in Table 5 indicate that job search intention does mediate the relationship between job search self-efficacy and job search behavior ($\beta = .065$, CI = $.032$ to $.107$). The bivariate relationship between job search self-efficacy and job search behavior is $.16$ ($p < .05$), whereas the direct path from self-efficacy to behavior in the path model is $-.01$ ($p > .05$). This pattern is consistent

with full mediation via intention. Therefore, Hypothesis 16, which predicted only partial mediation, is technically not supported.

Hypothesis 17: Job search intention will partially mediate the relationship between job search outcome expectation and job search behavior. Results in Table 5 indicate that job search intention does not mediate the relationship between job search outcome expectation and job search behavior ($\beta = .012$, CI = $-.052$ to $.094$). Hypothesis 17 is therefore not supported.

Hypothesis 18: Job search intention will partially mediate the relationship between conscientiousness and job search behavior. Hypothesis 18 is not supported because the confidence interval includes 0 ($\beta = .016$, CI = $-.021$ to $.061$). However, the relationship of conscientiousness to behavior is mediated by an alternate pathway involving self-efficacy. That is, the indirect effect of conscientiousness through job search self-efficacy, job search intention, and job search behavior is significant ($\beta = .019$, CI = $.008$ to $.038$).

Hypothesis 19: Job search outcome expectation will partially mediate the relationship between job search self-efficacy and job search behavior. Hypothesis 19 is not supported ($\beta = .022$, CI = $-.010$ to $.061$).

Hypothesis 20: Job search outcome expectation will partially mediate the relationship between job search support and job search behavior. Hypothesis 20 is not supported ($\beta = .026$, CI = $-.008$ to $.088$).

Model Fit. Several indices were used to assess the adequacy of model-data fit: χ^2 , Comparative Fit Index (CFI), Standardized Root Mean Square Residual (SRMR), and Root Mean Square Error of Approximation (RMSEA). Hu and Bentler (1999) proposed

that CFI should be greater than or equal to .95, SRMR should be less than or equal to .08, and RMSEA should be .06 or lower. The fit indices for the path analysis are shown in Table 6.

Table 6. Fit Indices for the Proposed Models.

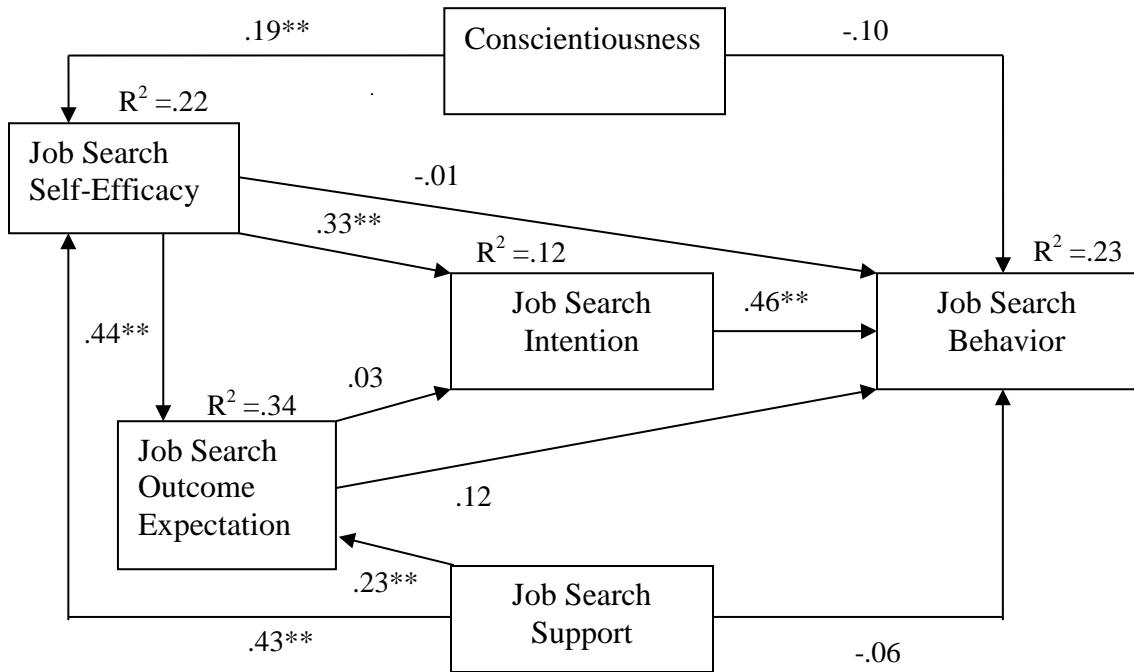
Model	χ^2	df	p-value	CFI	RMSEA	SRMR	$\Delta \chi^2$	Δdf	p-value
Main	1.09	2	.58	1.00	.01	.02			
Alternative	2.19	4	.70	1.00	.01	.02			
							1.10	2	.58

Note. $N = 240$. CFI = comparative fit index; RMSEA = root mean square error of approximation; SRMR = squared root mean residual; Main = main theoretical model; Alternative = omission of paths between conscientiousness and job search intention, and job search support and job search intention. Bootstrap estimates are based on 5,000 bootstrap samples.

Hypothesis 21: The job search self-management model will produce good overall fit to the data. Results in Table 6 indicate that χ^2 (1.09) is non-significant and the CFI (1.00), RMSEA (.01), and SRMR (.02) all suggest good model-data fit. These indices are consistent with Hypothesis 21. The model accounted for 23% of the variance in the prediction of job search behavior, 12% of the variance in the prediction of job search intention, 34% of the variance in the prediction of job search outcome expectation, and 22% of the variance in the prediction of job search self-efficacy.

Research Question 1: How well does an alternative model fit the data compared to the main self-management model shown in Figure 2? Results in Table 6 indicate that all fit indices for the alternative model were very similar to those for the main model. Moreover, the χ^2 difference test (reflecting the difference in χ^2 values between the two models) was not significant ($p = .58$). This suggests there is no significant difference between the main and alternative models. The more parsimonious alternative model, shown in Figure 5, may therefore be preferred.

Figure 6. Standardize Parameter Estimates for the Alternative Model



** = $p < .01$.

Supplemental Analysis: Correlation of Theoretical Variables with Job Interview Outcomes

This study collected additional data on the job interview and job offer status of those participants who completed the T2 assessment. Specifically, ninety-five participants responded to questions related to job search length, whether the job was full or part time, whether the new job was related to their college degree, the job field of the new job, and their satisfaction level with the new job they had acquired. Two hundred and thirty eight participants responded to the question about their employment status. In this section, exploratory correlations between the job interview/status variables and the theoretical variables will be presented. In theory, the SCCT variables may predict not only engagement in job search behavior but also indicators of the success of the job search process, such as number of job interviews completed and job offers received.

Of the ninety-five participants who responded, 83 indicated that their new job was full time while 12 indicated that their new job was part time. On the question of whether their new job was related to their college degree, 71 indicated that it was while 24 indicated that it was not. Appendix O (pp.70) provides a breakdown of the job field for those who found a new job. Using the occupational classification system from the U.S. Bureau of Labor Statistics (Bureau of Labor Statistics, 2010), the top three occupational clusters that participants planned to enter were architecture and engineering ($n = 14$, 15%); education, training, and library ($n = 14$, 15%); and business and financial operations ($n = 10$, 11%).

The employment status question referred to whether or not participants found a job. It was dummy-coded as 1 for having found employment and 2 for not finding employment. Of the two hundred and thirty eight participants who responded to the employment status question, 99 indicated that they found employment, and 139 indicated they had not. For the purpose of making correlations more intuitive, employment status was reverse-scored (e.g., 2 = employed; 1 = not employed).

Table 7 presents correlations between the theoretical variables (at Time 1) and job search outcomes at Time 2. There is a significant medium positive relationship between the number of job interviews and the number of job offers ($r = .39, p < .01$). Those who received more job interviews were more likely to receive job offers. There is a significant small negative relationship between the number of job interviews and employment status ($r = -.21, p < .01$). Those who received more job interviews were less likely to be unemployed. There was a significant small positive relationship between the number of job interviews and job search length ($r = .20, p < .05$). Those who took longer

to search received more job interviews. Finally, there was a significant large positive relationship between the number of job offers and employment status ($r = .58, p < .01$).

Those who received more job offers were more likely to be employed.

There was a significant small negative relationship between the number of job interviews and conscientiousness ($r = -.16, p < .05$). Results indicate that those who had more job interviews were less conscientious than those who had less job interviews.

There were significant small positive relationships between the number of job interviews and job search self-efficacy ($r = .22, p < .01$), job search intention ($r = .16, p < .05$), and job search behavior ($r = .28, p < .01$). There was a significant, small positive relationship between the number of job offers and job search self-efficacy ($r = .25, p < .01$).

Employment status appeared to have a significant, small and positive relationship with job search support ($r = .14, p < .05$), job search self-efficacy ($r = .27, p < .01$), and job search outcome expectations ($r = .22, p < .01$). This indicates that those with more support and higher levels of self-efficacy and outcome expectations were more likely to be employed as a result of the job search process. The level of satisfaction with the new job was significantly and positively correlated with conscientiousness ($r = .26, p < .05$) and job search outcome expectations ($r = .24, p < .05$).

Table 7. Correlations of the Theoretical Variables with Job Search Outcomes

	1	2	3	4	5	<i>M</i>	<i>SD</i>
1. # of job interviews	-					2.81	4.98
2. # of job offers	.39**	-				.88	1.33
3. Employment status	.21**	.58**	-			1.58	.49
4. Job search length	.20*	.14	.01	-		8.20	7.59
5. Satisfaction with new job	.05	.18	.01	.01	-	8.18	1.59
6. Job search self-efficacy	.22**	.25**	.27**	-.07	.15	6.14	1.44
7. Job search outcome exp.	.07	.11	.22**	.05	.24*	3.83	.60
8. Job search support	-.01	.04	.14*	.07	.05	3.50	.62
9. Conscientiousness	-.16*	.05	.06	-.01	.26*	7.25	.94
10. Job search intention	.16*	.09	.09	.13	.14	2.36	.52
11. Job search behavior	.28**	.12	.01	.14	-.07	2.14	.61

of job interviews (N = 95); # of job offers (N = 95); Employment status (N = 238); Job search length

(N = 95); Satisfaction level with new job (N = 95); Job search self-efficacy (N = 240); Job search outcome expectation (N = 240); Job search support (N = 240); Conscientiousness (N = 240); Job search intention (N = 240); Job search behavior (N = 240).

* = $p < .05$, ** = $p < .01$.

Chapter 5: Discussion

The present study sought to test a segment of the career self-management model proposed by Lent and Brown (2013) on a sample of graduating college seniors who were searching for a job. Specifically, the social cognitive variables of job search support, job search self-efficacy, job search outcome expectations, job search intention, and conscientiousness were proposed to predict the performance of job search behaviors three months later.

Summary of Model Testing Findings

Correlations indicated that the variables in the social cognitive model were significantly interrelated, with the exception of the relations of job search support to job search intention and job search behavior and of conscientiousness to job search behavior. The path analysis produced good model-data fit, though job search intention was the only significant direct predictor of job search behavior, and job search self-efficacy was the only significant direct predictor of job search intention. Conscientiousness and job search support each explained unique variance in the prediction of job search self-efficacy, and job search self-efficacy and job search support each explained unique variance in the prediction of job search outcome expectation. Job search outcome expectation, however, did not predict either job search intention or job search behavior.

In addition to the direct paths, several indirect pathways were observed. In particular, results of the bootstrapping analyses indicated that job search intention mediated the relation between job search self-efficacy and job search behavior. The relations of job search support and conscientiousness to job search behavior were

mediated through their paths to self-efficacy and, in turn, the path from self-efficacy to intention.

Overall, the target model explained 12% of the variance in job search intentions and 23% of the variance in job search behavior three months later. Despite the good fit of the target model to the data fit, an alternative model, omitting the paths from support and conscientiousness to intention, was found to produce comparable model-data fit. The alternative model is more parsimonious and, therefore, may be preferred.

Due to results from this study indicating that not all paths in the model are consistent with the SCCT model and the non-significant influence of the job search outcome expectation factor, it is possible to argue that the Career Self-Management model may need to be modified. There is currently not sufficient research support to make such a decision at this point. More studies need to be conducted on diverse demographic populations to assess whether the proposed model would fit those data.

Comparison with Prior Findings

In the original formulation of the SCCT choice model (Lent et al., 2000) and in the newer career self-management model (Lent & Brown, 2013), the authors proposed that environmental factors such as support would predict goals and actions directly. Results from this study indicated that, after accounting for the other social cognitive variables, job search support did not explain unique variance in the prediction of job search intention or behavior. The results of this study also ran counter to a meta-analysis by Kanfer et al. (2001) and a study by Slebarska et al. (2009), both of which reported significant relationships between job search support and job search behavior.

Job search support, on the other hand, was significantly related to job search self-efficacy, and through job search self-efficacy, was indirectly linked to job search intention and job search behavior. This indirect path, through self-efficacy, is consistent with Bandura's (2000) contention that environmental factors such as support might relate to goals (at least in part) indirectly through self-efficacy. A meta-analysis by Sheu et al. (2010) of the SCCT choice model similarly found that social support was indirectly linked to goals through self-efficacy.

The career self-management model proposed that self-efficacy would relate directly to intention and behavior. Results from this study indicated that job search self-efficacy produced a direct path to job search intention, though only an indirect path to job search behavior through job search intention. These results supported the finding by Van Hooft et al. (2004) indicating that there was no significant direct relationship between job search self-efficacy and job search behavior, but were contrary to other findings showing significant direct relationships between job search self-efficacy and job search behavior (Fort, Jacquet, & Leroy, 2011; Kanfer et al., 2001). In addition, job search intention was found to mediate the relationship between job search self-efficacy and job search behavior in this study, which supported Wanberg et al.'s (2005) findings but ran counter to those of Zikic and Saks (2009).

In the career self-management model, Lent and Brown (2013) proposed that outcome expectations would significantly predict goals and actions. After controlling for the other variables, job search outcome expectations was not found to explain any significant variance in the prediction of job search intention or job search behavior. However, the findings that self-efficacy and support each accounted for significant

variance in outcome expectations is consistent with the career self-management model. Some studies of the SCCT choice model have also found that, while self-efficacy predicts outcome expectations, the latter does not explain unique variance in intentions or actions (e.g., Lent et al., 2003).

The career self-management model posited that conscientiousness would predict job search behavior both directly and indirectly. Support was, however, found only for an indirect link. That is, there was a significant indirect pathway from conscientiousness to job search behavior through job search self-efficacy and job search intention. The absence of a direct relationship ran counter to Kanfer et al.'s (2001) meta-analytic findings that there was a medium-sized direct relationship between conscientiousness and job search behavior. The present findings suggest that conscientiousness may aid the job search process by promoting students' confidence in their job search behaviors. The job search process places a premium on being organized and persistent; those with these traits are likely to report more self-efficacy at job searching because they are likely to have profited from these traits in previous situations, like applying for college or part-time jobs.

Supplemental Findings: Prediction of Job Search Outcomes

The number of job interviews were, perhaps not surprisingly, positively correlated with the number of job offers, and positively correlated with employment status (i.e., those receiving more interviews were more likely to be employed). Job search self-efficacy and intentions at Time 1 were also positively associated with the number of job interviews conducted by Time 2. Greater engagement in job search behaviors was also associated with having more job interviews, though not more job offers. There was an

positive relationship between the number of job offers and one's employment status. That is, as an individual received more job offers, there was an increased likelihood that he or she would be employed. Employment status was also positively related to job search support, self-efficacy, and outcome expectations. One counter-intuitive finding was that conscientiousness was negatively associated with the number of job interviews, though it was positively associated with satisfaction with the new job. It is possible that more conscientious job-seekers engaged in more focused and efficient job searches, requiring fewer interviews.

Development of a Job Search Outcome Expectation Scale

The job search outcome expectation measure was specifically developed for the current study because an established scale assessing this construct could not be located in the research literature. The nine items incorporated the three conceptual dimensions of outcome expectations. Results from the pilot and main studies indicated that the new measure produced acceptable internal consistency reliability estimates. In terms of validity, the measure correlated with each of the other social cognitive factors and was also predictive of employment status at Time 2. However, it did not account for unique variance in either intention or behavior within the context of the path analysis, which controlled for the effects of the other predictors. While more research is needed examining the unique role of outcome expectations in the job search process, it may be that social pressures to find work after college graduation outweigh the motivational value of job search outcome expectations.

Implications for Future Research

The present study examined only a subset of the career self-management model proposed by Lent and Brown (2013). Results indicated that the partial model was a good fit to the data. Future research may expand on the current study by testing fuller versions of the career self-management model. This would allow for the consideration of other factors like culture, learning experiences (or sources of efficacy information), and barriers to the job search process. It is possible, for example, that certain barriers or learning experiences (e.g., limited prior experience with job searches or geographical limitations) could have constrained the job search process. The social cognitive variables in this study accounted for 23% of the variance in the prediction of job search behaviors three months later. Future research might examine additional predictors that can explain more of the variance in job search behavior. In addition, it would be useful to assess the social cognitive variables (i.e. job search self-efficacy, job search outcome expectation, job search support, and job search intention) at multiple time points, which would allow for tests of temporal predominance, bidirectionality, and temporal mediation. Finally, research has shown that conscientiousness can play a significant moderating role between intention and behavior (Webb, Christian, & Armitage, 2007). Future research might examine a possible moderating role that conscientiousness plays between job search outcome expectation and job search intention, or between job search intention and job search behavior.

Implications for Practice

The present study examined the social cognitive variables of self-efficacy, outcome expectation, social support, conscientiousness, and intention in their prediction

of job search behavior. Job search intention was found to be the primary direct predictor of job search behavior; it also mediated the relation of other predictors to job search behavior. In assisting those in the process of contemplating searching for a job, practitioners might therefore want to focus on increasing the individual's job search intentions. One of the ways to increase intentions is to set realistic and achievable goals (e.g., where larger, distal goals are broken into proximal sub-goals). Some students might feel overwhelmed with the pressure to find employment because they are graduating, even though they might feel motivated to do so. By setting achievable goals, the individual might then know what they need to do and thus help reduce their anxieties. Practitioners might also increase students' job search self-efficacy by helping them to be aware of the specific job search tasks they need to perform (e.g. prepare resumes, how to look for a job opening online) in order to be competitive for the job market. Job search workshops featuring instruction, rehearsal, and role modeling could help to promote self-efficacy.

Another way to increase an individual's intentions to look for a job would be to focus on increasing the individual's conscientiousness, such as making sure their resume is in order, they have a weekly plan to follow, and they are following through with communicating with potential employers. This can in turn allow the individual to feel more self-confident in the job search process, for example, by helping them to perform tasks and behaviors over which they can exert some control. Developing a strong support system can also assist in the job search process. An increase in social support may promote the individual's self-efficacy in the job search process. The practitioner might help the job-seeker to identify people in their lives who they can seek advice or support

from during a stressful job search process. The individual's support system might also help them network regarding possible job openings that are not otherwise advertised.

Finally, although practitioners may be aware of the factors that contribute to job search behaviors and job search success, they may face the challenge of educating job seekers on these factors. The Career Self-Management model can provide an explanation of the job search process, providing clear-cut significant associations between the factors. Such evidence may encourage job seekers to perform the important tasks required to look for a job.

Limitations of the Study

Interpretation and generalization of the findings should consider the study's limitations. First, the study used graduating college seniors as sample participants, thereby limiting the generalizability of the findings to college seniors, and more specifically college seniors from a Mid-Atlantic university. It is, therefore, important to test the model in other college and non-college environments, such as with workers who have been laid off from their employment or those who are planning to voluntarily leave their current employers.

Second, although the study was conducted about five months before graduation, it was possible that many seniors had already begun their job search a lot sooner and thus already found a job. Those who participated in the study might have been delayed in their initiation of job search processes and, thus, be a less highly motivated group than those who had initiated their searches sooner. Future research can therefore conduct the study earlier in the academic year, perhaps even a year before participant's intention to graduate from college.

Third, the study's design did not control for type of academic major or occupational field. It is likely that the job search hinges partly on the fields that students plan to enter. For example, those who search for engineering jobs may have more institutional supports and access to more relevant job openings than, say, students graduating with a humanities major. Future research could, therefore, include these considerations in the study's design.

A fourth potential limitation is that the study was conducted online, with invitations to participate only sent through email, creating a self-selection bias. There was an 11% response rate from the 5438 college seniors to which the advertisement was sent. The response rate for this study was about 6% lower than results from other web-based studies (Jin, 2010; Lozar Manfreda et al., 2008; Webber et al., 2012). It was possible that due to spam filtering, some potential participants might have never gotten a chance to view the email invitations to participate. It was also possible that potential participants had been sensitized to email advertisements to participate in survey studies. Due to the study's online nature, which would require participants to have a computer and internet access, those who were less confident in navigating the interface of the online study might have decided not to participate.

Fifth, all of the responses were self-report, creating a mono-method bias. The study also required participants to provide honest and self-aware responses. Because there was an incentive to participate in the study, a chance to win a gift card, it was possible that participants might have been more motivated by the chance to win the gift card than to devote time to responding thoughtfully to the survey items. For instance, during the data cleaning process, seven duplicate entries in participant student IDs and email addresses

were found (and removed), suggesting that some participants wanted to give themselves a better chance to win the gift card.

Finally, it should be noted that there was significant attrition, almost 40%, in participation from time 1 to time 2. One can only speculate as to why many participants decided not to participate in T2. Those who participated only at T1 reported stronger job search intentions than those who participated at both time points. It is possible that the T1-only participants found jobs more quickly and, therefore, felt that they did not qualify for, or were less highly motivated to participate in, the T2 assessment. Due to the email communication medium, it was also possible that at least some of the dropouts did not receive an email inviting them to return for phase two of the study.

Conclusion

In conclusion, the results of this study provide preliminary support for the utility of the career self-management model in predicting the job search behaviors of graduating college seniors longitudinally. The model accounted for 23% of the variance in job search behaviors. Job search intention at T1 was found to be a central predictor of job search behavior at T2; intention both predicted search behavior directly and mediated the relation of certain other predictors (self-efficacy, support, conscientiousness) to job search behavior. These findings suggest the usefulness of future research testing the career self-management model. This study also offers a novel measure of job search outcome expectations that can be used in future research. For practitioners, these findings highlight the importance of helping individuals to increase their job search intentions. This may include helping the individual to increase their conscientiousness, job search self-efficacy, and access to job-finding social supports.

Appendix A: Demographics (Time 1 Study)

- 1.) Age: _____

- 2.) Gender: _____
 - a) Male
 - b) Female

- 3.) Race/Ethnicity: _____
 - a) White (Caucasian)
 - b) Black (African-American)
 - c) Asian/Pacific Islander
 - d) Native American/Indigenous
 - e) Hispanic
 - f) Biracial
 - g) Other _____

- 4.) Academic Major:

5. Current Job Status:
 - Are you currently employed? ___Yes ___ No
 - If you are employed, what is your job title? _____

6. Do you plan to look for a job this semester?

7. Immediate Plans After College Graduation: Please indicate which of the following describe your immediate job or other plans after you graduate (check as many as apply to you):
 - I already have a full time job lined up after I graduate ___
 - I plan to stay with my current employer after graduation ___
 - I plan to look for a new *full-time* job after graduating from college ___
 - I plan to look for a new *part-time* job after graduating from college ___
 - If you plan to search for a job, indicate what field you are most interested in, using the drop-down menu.
 - I plan to continue my education after graduation (e.g., by attending graduate school) ___
 - Other plans: Please indicate _____

Appendix B: Job Search Behavior

Instructions: Please indicate the frequency with which you carried out the following tasks each week within the past 3 months on a 5-point scale:

- 1 = Never (0 times/week)
- 2 = Rarely (1 – 2 times/week)
- 3 = Occasionally (3-5 times/week)
- 4 = Frequently (6-9 times/week)
- 5 = Very Frequently (at least 10 times/week)

1. Read the help wanted/classified ads in a newspaper, journal, professional association, or online job site.	1	2	3	4	5
2. Listed yourself as a job applicant in a newspaper, journal, professional association, or online job site.	1	2	3	4	5
3. Prepared/revised your resume.	1	2	3	4	5
4. Sent out resumes to potential employers.	1	2	3	4	5
5. Filled out a job application.	1	2	3	4	5
6. Read a book or article about getting a job or changing jobs.	1	2	3	4	5
7. Had a job interview with a prospective employer.	1	2	3	4	5
8. Talked with friends or relatives about possible job leads.	1	2	3	4	5
9. Contacted an employment agency, executive search firm or state employment service.	1	2	3	4	5
10. Spoke with previous employers or business acquaintances about their knowing of potential job leads.	1	2	3	4	5
11. Telephoned a prospective employer.	1	2	3	4	5
12. Used current within college resources (e.g. career center) to generate potential job leads.	1	2	3	4	5
13. Conducted information interviews to find out about careers and jobs that you are interested in pursuing.	1	2	3	4	5
14. Analyzed your interests and abilities to determine the best job for you.	1	2	3	4	5

Appendix C: Mini Markers

Instructions: Please use this list of common human traits to describe yourself as accurately as possible. Describe yourself as you see yourself at the present time, not as you wish to be in the future. Describe yourself as you are generally or typically, as compared with other persons you know of the same sex and of roughly your same age. Before each trait, please write a number indicating how accurately that trait describes you, using the following rating scale:

Inaccurate					Accurate			
Extremely	Very	Moderately	Slightly		Slightly	Moderately	Very	Extremely
1	2	3	4	5	6	7	8	9

- ___ Careless
- ___ Disorganized
- ___ Efficient
- ___ Sloppy
- ___ Organized
- ___ Practical
- ___ Inefficient
- ___ Systematic

Appendix D: Perceived Social Support for Job Search Activity Scale

Instructions: Please answer the items below using the following scale.

Strongly disagree	1	2	3	4	5	Strongly agree
1. I feel that I am receiving a high level of support for my job search efforts.	1	2	3	4	5	
2. When I am turned down for a job interview, I receive positive encouragement for continuing my job search efforts.	1	2	3	4	5	
3. I feel all alone in dealing with the frustrations of searching for a job.	1	2	3	4	5	
4. Others encourage me to continue searching for a job even when I feel down.	1	2	3	4	5	
5. I feel that others understand why I want to continue working.	1	2	3	4	5	
6. No one really understands how hard it is to find a job these days.	1	2	3	4	5	
7. If I feel like quitting my search for a job, others encourage me to keep contacting employers.	1	2	3	4	5	
8. When it comes to searching for a job, I have others supporting me.	1	2	3	4	5	

Appendix E: Job Search Self-Efficacy

Instruction: Using the following scale, please indicate how **confident** you are that you can successfully do each of the following job search activities:

1	2	3	4	5	6	7	8	9	10
Not at all				Moderately					Totally
Confident				Confident					Confident

- 1. Use social networks to obtain job leads.
- 2. Prepare resumes that will get you job interviews.
- 3. Impress interviewers during employment interviews.
- 4. Make "cold calls" that will get you a job interview.
- 5. Conduct information interviews to find out about careers and jobs that you are interested in pursuing.
- 6. Obtain more than one good job offer.
- 7. Be successful in your job search.
- 8. Prepare a sales pitch that will attract the interest of employers.
- 9. Plan and organize a weekly job search schedule.
- 10. Find out where job openings exist.

Appendix F: Job Search Intention

Instructions: Please indicate the frequency with which you intend to carry out the following tasks each week within the next 3 months on a 5-point scale.

- 1= Never (0 times/week)
- 2 = Rarely (1 – 2 times/week)
- 3 = Occasionally (3-5 times/week)
- 4 = Frequently (6-9 times/week)
- 5 = Very Frequently (at least 10 times/week)

1. Read the help wanted/classified ads in a newspaper, journal, professional association, or online job site.	1	2	3	4	5
2. List yourself as a job applicant in a newspaper, journal, professional association, or online job site.	1	2	3	4	5
3. Prepare/revise your resume.	1	2	3	4	5
4. Send out resumes to potential employers.	1	2	3	4	5
5. Fill out a job application.	1	2	3	4	5
6. Read a book or article about getting a job or changing jobs.	1	2	3	4	5
7. Have a job interview with a prospective employer.	1	2	3	4	5
8. Talk with friends or relatives about possible job leads.	1	2	3	4	5
9. Contact an employment agency, executive search firm or state employment service.	1	2	3	4	5
10. Speak with previous employers or business acquaintances about their knowing of potential job leads.	1	2	3	4	5
11. Telephone a prospective employer.	1	2	3	4	5
12. Use current within college resources (e.g. center career) to generate potential job leads.	1	2	3	4	5
13. Conduct information interviews to find out about careers and jobs that you are interested in pursuing.	1	2	3	4	5
14. Analyze your interests and abilities to determine the best job for you.	1	2	3	4	5

Appendix G: Job Search Outcome Expectation

Instructions: Using the rating scale below, please indicate the extent to which each statement is true for you.

Not True	Slightly True	Fairly True	Very True	Definitely True
1	2	3	4	5

If I were to look actively for work over the next three months, I expect the following things will happen:

1. I will feel good about myself.	1	2	3	4	5
2. My friends and family members will appreciate me.	1	2	3	4	5
3. I will likely find a decent paying job.	1	2	3	4	5
4. I will receive job interviews with potential employers.	1	2	3	4	5
5. I will know that I did my best in looking for work.	1	2	3	4	5
6. My friends and family members will think that I am on my way to success.	1	2	3	4	5
7. My friends and family will know that I am working hard to find a job.	1	2	3	4	5
8. I will receive leads to other potential job openings.	1	2	3	4	5
9. I will continue to be motivated to look for a job.	1	2	3	4	5

Appendix H: Online Informed Consent Form

Investigator Identification: This study is being conducted by Robert H. Lim under the supervision of Dr. Robert Lent at the University of Maryland, College Park.

Study Description: The purpose of this study is to examine the experiences of those who will be looking for a job after graduation. Participation will involve completing a set of questionnaires now, and then a follow-up set of questionnaires about three months later. Participation right now, which is strictly voluntary, will involve completing one set of questionnaires that will take about 10-15 minutes. The follow-up set of questionnaires in about three months will take about 5-10 minutes.

Possible Risks and Benefits: It is not anticipated that you will be placed at any risk by participating in the study. Nor is it expected that you will receive any direct personal benefit from filling out the questionnaire. A possible benefit from participating in the study is that you may gain insights into your job search process. At the end of the study, after completing the follow-up set of questionnaires in about three months, you will be given the opportunity to enter your name into a raffle for one of twenty \$25 gift certificate to Amazon. The odds of winning depend on the number of participants.

Participant Information: Your participation in this research is completely voluntary. You may discontinue your participation in the study at any time without penalty. You may also choose to not answer any question(s) that you do not wish to, for any reason. If you provide any demographic information that could be identifying (e.g., the only member of a particular ethnic group), then this information will be combined with other participants. At the end of the survey, you will be asked to enter your first and last name, and email address should you wish to enter the raffle. Your name will not be linked with the survey data, but will be used to match your data from time 1 with the data from time 2.

On-Line Data Collection: This project has been approved by the University of Maryland, College Park Institutional Review Board (IRB Approval #). Approval of this project only signifies that the procedures adequately protect the rights and welfare of the participants. Should the Institutional Review Board and University or government officials responsible for monitoring this study want to inspect these records, information will need to be disclosed.

Questions or Concerns: In the event that you have any questions or concerns about this study, you may contact Robert H. Lim at rlim@umd.edu. If you have questions about your rights as a research subject or wish to report a research-related injury, please contact: **Institutional Review Board Office, University of Maryland, College Park, Maryland , 20742; (e-mail) irb@deans.umd.edu; (telephone) 301-405-0678.**

Electronic Consent

Please indicate your choice below. Clicking on the "continue" button below indicates that you are at least 18 years old and have read and understand the terms of this study and thus voluntarily agree to participate. Consent to participate also indicates that you are currently looking, or intend to look, for a full time job to begin after graduation. If you do **NOT** wish to participate in the study, please decline participation by closing the window.

Appendix I: Thank you

Finish. Thank you for taking the survey. Please enter your information below so that we may follow up with you for the second part of the study in about three months. Your information will not be linked to your response in any way. Please look out for an email in about three months inviting you to participate in the second part of the survey. At the completion of the second part of the survey, you will be given an opportunity to participate in a raffle to win one of twenty \$25 gift certificates to Amazon.

First Name: _____

Last Name: _____

Email Address: _____

Appendix J: Recruitment Advertisement: Text of Email and Verbal Script

A research study about the job search process

Will you be graduating this semester? Do you have plans to look for employment this semester so that you have a job after graduation? If so, then we need your help! We are doing a study on how people search for a job. Participation requires completing an online survey on a secure website. You will be asked questions about how you conduct your job search. The study is being conducted by Mr. Robert Lim, Ed.M., a doctoral candidate, and Dr. Robert W. Lent, Ph.D., a professor at the University of Maryland, College Park.

If you're interested, just click on the link below to be taken to Qualtrics, a secure website that hosts the survey. Once you're there you'll be able to review a brief description of the survey, and read an informed consent form before you decide to participate.

https://www.qualtrics.com/_____

Appendix K: Questionnaires (Time 2 Study)

1.) First Name: _____

2.) Last Name: _____

3.) Academic Major:

Since the last time you participated in this study:

4. How many job interviews did you complete? Please give your best estimate.

5. How many job offers did you receive? Please give your best estimate.

6. Are you currently employed?

a. If you are currently employed:

i. When into the semester did you find the job?

ii. How long did it take you to find the job?

iii. Is the job full time or part time?

iv. What is your job title?

v. Does the job relate to your college degree?

vi. What benefits (i.e. health insurance, dental insurance), if any, comes with your new job?

vii. On a scale of 1 (not satisfied at all) to 10 (very satisfied), how satisfied are you with your current job?

Appendix L: Thank you

Finish. Thank you for taking the survey. Please enter your information below if you would like an opportunity to participate in a raffle to win one of twenty \$25 gift certificates to Amazon. The odds of winning depend on the number of participants. Raffle winners will be notified by ____.

First Name: _____

Last Name: _____

Email Address: _____

Appendix M: Time 1 Participant Demographics

Participant academic majors

Academic Major	<i>n</i>	Percent
Accounting	4	1.0
Aerospace Engineering	9	2.3
Agricultural and Resource Economics	1	.3
American Studies	2	.5
Animal Sciences: Animal Care and Management	1	.3
Animal Sciences: Sciences/Pre-Professional	5	1.3
Anthropology	3	.8
Arabic Studies	2	.5
Architecture	2	.5
Art History	3	.8
Astronomy	1	.3
Biochemistry	3	.8
Bioengineering	11	2.8
Biological Sciences: Cell Biology and Genetics	3	.8
Biological Sciences: Ecology and Evolution	1	.3
Biological Sciences: General Biology	11	2.8
Biological Sciences: Microbiology	4	1.0
Biological Sciences: Physiology and Neurobiology	16	4.0
Chemical Engineering	4	1.0
Chemistry	2	.5
Chinese	1	.3
Civil Engineering	6	1.5
Classical Languages and Literatures	1	.3
Communication	22	5.5
Community Health	15	3.8
Computer Engineering	1	.3
Computer Science	4	1.0
Criminology and Criminal Justice	15	3.8
Early Childhood Education	1	.3
Economics	16	4.0
Education	9	2.3
Electrical Engineering	4	1.0
English Language and Literature	12	3.0

Academic Major	<i>n</i>	Percent
English Language Arts Education	1	.3
Environmental Health	1	.3
Environmental Science and Policy	8	2.0
Environmental Science and Technology	1	.3
Family Science	7	1.8
Finance	4	1.0
Fire Protection Engineering	4	1.0
Geographical Sciences	7	1.8
Geology	1	.3
Government and Politics	15	3.8
Hearing and Speech Sciences	5	1.3
History	9	2.3
Information Systems	2	.5
International Business	5	1.3
Japanese	2	.5
Jewish Studies	1	.3
Journalism: Broadcast	8	2.0
Journalism: Multi-Platform	9	2.3
Kinesiology	14	3.5
Landscape Architecture	1	.3
Linguistics	1	.3
Logistics, Transportation and Supply Chain Management	4	1.0
Management	3	.8
Marketing	19	4.8
Materials Science and Engineering	1	.3
Mathematics	5	1.3
Mathematics Education	1	.3
Mechanical Engineering	14	3.5
Music: Professional Program	1	.3
Nutrition and Food Sciences	1	.3
Operations Management	6	1.5
Persian Studies	1	.3
Physical Sciences	2	.5
Psychology	21	5.3
Romance Languages	1	.3
Science Education	1	.3
Sociology	7	1.8
Spanish Language, Literature and Cultures	1	.3
Studio Art	2	.5

Academic Major	<i>n</i>	Percent
Theatre	2	.5
Women's Studies	1	.3
Did Not Respond	2	.5

Participant career field of interest

Career Fields	<i>n</i>	Percent
Management Occupations	25	6.3
Business and Financial Operations Occupations	29	7.3
Computer and Mathematical Occupations	14	3.5
Architecture and Engineering Occupations	47	11.8
Life, Physical, and Social Science Occupations	48	12.1
Community and Social Services Occupations	26	6.5
Legal Occupations	15	3.8
Education, Training, and Library Occupations	31	7.8
Arts, Design, Entertainment, Sports, and Media Occupations	40	10.1
Healthcare Practitioners and Technical Occupations	9	2.3
Healthcare Support Occupations	19	4.8
Protective Service Occupations	9	2.3
Food Preparation and Serving Related Occupations	3	.8
Personal Care and Service Occupations	1	.3
Sales and Related Occupations	7	1.8
Office and Administrative Support Occupations	2	.5
Farming, Fishing, and Forestry Occupations	4	1.0
Production Occupations	1	.3
Military Specific Occupations	3	.8
Other	63	15.9
Did Not Reply	1	.3

Appendix N: Time 2 Participant Demographics

Participant academic majors

Academic Major	<i>n</i>	Percent
Accounting	1	.4
Aerospace Engineering	6	2.5
Agricultural and Resource Economics	1	.4
American Studies	2	.8
Animal Sciences: Animal Care and Management	1	.4
Animal Sciences: Sciences/Pre-Professional	4	1.7
Anthropology	1	.4
Arabic Studies	1	.4
Astronomy	1	.4
Biochemistry	3	1.3
Bioengineering	5	2.1
Biological Sciences: Cell Biology and Genetics	2	.8
Biological Sciences: Ecology and Evolution	1	.4
Biological Sciences: General Biology	5	2.1
Biological Sciences: Microbiology	3	1.3
Biological Sciences: Physiology and Neurobiology	8	3.3
Chemical Engineering	2	.8
Chemistry	1	.4
Chinese	1	.4
Civil Engineering	2	.8
Classical Languages and Literatures	1	.4
Communication	13	5.4
Community Health	6	2.5
Computer Science	3	1.3
Criminology and Criminal Justice	8	3.3
Economics	8	3.3
Education	6	2.5
Electrical Engineering	3	1.3
English Language and Literature	5	2.1
English Language Arts Education	1	.4
Environmental Health	1	.4
Environmental Science and Policy	4	1.7
Environmental Science and Technology	1	.4
Family Science	6	2.5
Finance	3	1.3
Fire Protection Engineering	1	.4

Academic Major	<i>n</i>	Percent
Geographical Sciences	4	1.7
Government and Politics	11	4.6
Hearing and Speech Sciences	2	.8
History	3	1.3
Information Systems	2	.8
International Business	4	1.7
Japanese	2	.8
Jewish Studies	1	.4
Journalism: Broadcast	5	2.1
Journalism: Multi-Platform	9	3.8
Kinesiology	9	3.8
Logistics, Transportation and Supply Chain Management	3	1.3
Management	1	.4
Marketing	12	5.0
Mathematics	3	1.3
Mathematics Education	1	.4
Mechanical Engineering	11	4.6
Music: Professional Program	1	.4
Operations Management	6	2.5
Physical Sciences	1	.4
Psychology	14	5.8
Romance Languages	1	.4
Science Education	1	.4
Sociology	5	2.1
Spanish Language, Literature and Cultures	1	.4
Studio Art	1	.4
Theatre	2	.8
Women's Studies	1	.4
Did Not Respond	2	.8

Participant career field of interest

	<i>n</i>	Percent
Management Occupations	17	7.1
Business and Financial Operations Occupations	18	7.5
Computer and Mathematical Occupations	9	3.8
Architecture and Engineering Occupations	26	10.8
Life, Physical, and Social Science Occupations	30	12.5
Community and Social Services Occupations	16	6.7
Legal Occupations	8	3.3
Education, Training, and Library Occupations	19	7.9
Arts, Design, Entertainment, Sports, and Media Occupations	24	10.0
Healthcare Practitioners and Technical Occupations	5	2.1
Healthcare Support Occupations	10	4.2
Protective Service Occupations	5	2.1
Food Preparation and Serving Related Occupations	1	.4
Personal Care and Service Occupations	1	.4
Sales and Related Occupations	3	1.3
Office and Administrative Support Occupations	1	.4
Farming, Fishing, and Forestry Occupations	4	1.7
Production Occupations	1	.4
Military Specific Occupations	2	.8
Other	40	16.7

Appendix O: Occupational fields of those who found a job

Occupational fields of those who found a job ($n = 95$)

	n	Percent
Management Occupations	9	9.47
Business and Financial Operations Occupations	10	10.53
Computer and Mathematical Occupations	6	6.32
Architecture and Engineering Occupations	14	14.74
Life, Physical, and Social Science Occupations	5	5.26
Community and Social Services Occupations	2	2.11
Legal Occupations	1	1.10
Education, Training, and Library Occupations	14	14.74
Arts, Design, Entertainment, Sports, and Media Occupations	4	4.21
Healthcare Practitioners and Technical Occupations	2	2.11
Healthcare Support Occupations	2	2.11
Food Preparation and Serving Related Occupations	1	1.10
Sales and Related Occupations	7	7.37
Office and Administrative Support Occupations	4	4.21
Farming, Fishing, and Forestry Occupations	1	1.10
Other	13	13.68

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