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Kerry D. Carson

Louisiana State University and Agricultural & Mechanical College

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**A multidimensional career commitment measure (MCCM)
gauging motivation to work in one's career field**

Carson, Kerry D., Ph.D.

The Louisiana State University and Agricultural and Mechanical Col., 1991

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300 N. Zeeb Rd.
Ann Arbor, MI 48106

A MULTIDIMENSIONAL CAREER COMMITMENT MEASURE (MCCM)
GAUGING MOTIVATION
TO WORK IN ONE'S CAREER FIELD

A Dissertation

Submitted to the Graduate Faculty of the
Louisiana State University and
Agricultural and Mechanical College
in partial fulfillment of the
requirements for the degree of
Doctor of Philosophy

in

The Interdepartmental Program of Business Administration

by
Kerry D. Carson
B.S., Purdue University, 1971
M.S.W., Indiana University, 1973
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ABSTRACT

Past career commitment measures have been redundant with other work commitment measures or have been narrowly defined as professionalism. Blau's (1985) definition of career commitment as one's attitude towards one's vocation seems to most closely represent this construct. However, his measure has several problems including construct overlap with career withdrawal intentions. Because of a developmental lag in the career focus domain due to lack of established measures, the reported research constructed and tested a theoretically based measure of career commitment.

Development of a new career commitment measure was based on London's (1983) theory of career motivation consisting of three theoretical dimensions: (a) career identification, a close emotional association with one's career; (b) career planning, determining one's developmental needs and establishing a career plan; and (c) career resilience, resisting career disruption in the face of adversity. Developing the measure involved two pilot studies culminating with a field study of 476 employees. Twelve items representing the three theoretical dimensions of career commitment were analyzed.

Results indicated that the multidimensional career

commitment measure (MCCM) displayed adequate reliability. The overall alpha coefficient was .81 while the dimensions' alpha coefficients ranged from .79 to .84. Construct validity also appeared to be adequate. The correlation between the MCCM and Blau's (1985) measure was .63 suggesting convergent validity. Also, confirmatory factor analysis supported the MCCM's structure and discriminant validity. Further, a series of univariate analyses were conducted to determine if correlations between the MCCM and certain job-related variables were different than correlations between other workplace commitments and these job-related variables. Univariate analyses provided support for the nomological validity of the MCCM. Finally, using ANCOVA and MANCOVA with a follow-up discriminant analysis, it was determined that the new measure detected appropriate differences in career commitment levels across occupational groups.

CHAPTER ONE

The Dissertation Topic

The purpose of this chapter is to provide a dissertation overview. It begins by establishing importance of the dissertation topic. This is followed by a background description of the general dissertation research area. A problem statement is then presented. Finally, a brief outline of the study's focal methodology is provided.

Importance of the Topic

Careers are important to individuals, organizations, and society. Individuals are concerned with their careers because their careers activities help determine social positions and role interactions (Hughes, 1958). Progression of individual careers is influenced by organizations (Lawrence, 1990), and individual career progression influences organizations. Because organizations employ individuals with careers that are both compatible with other members' careers and with overall objectives, organizational members' career progress fosters organizational growth and productivity (Fulmer, 1989; Lengnick-Hall & Lengnick-Hall, 1988).

Finally, through effective career management of employees, organizations ultimately benefit society with aggregate production of needed goods and services (Arthur, 1984).

Effective management which fosters employees' commitment to a workplace (Mowday, Porter, & Steers, 1982) has been of interest to researchers because committed employees are thought to be more effective, stable employees than their uncommitted counterparts (cf. Jauch, Glueck, & Osborn, 1978; Steel & Ovalle, 1984). In fact, classic field studies have shown that workers who are not committed to their workplace may purposely restrict output (Taylor, 1911; Roethlisberger & Dickson, 1939).

Management researchers have historically been interested in several types of workplace loyalties such as organizational commitment and union commitment (Morrow, 1983). More recently, there has been increased attention paid to workers' commitment to their careers (e.g., Colarelli & Bishop, 1990; Morrow & Wirth, 1989).

Changing loyalties (Schermerhorn, Hunt, & Osborn, 1988) and higher educational levels of employees (Burris, 1983) have heightened the importance of studying career commitment. With mergers, acquisitions, and layoffs (Schermerhorn et al., 1988), many workers can no longer depend upon one organization (Ivancevich, Schweiger, & Power, 1987) to sustain their entire career. To cope with organizational change, more educated workers have become

increasingly committed to their own careers for occupational stability. As Colarelli and Bishop (1990) suggest, "commitment to an internally defined career may become an important source of occupational meaning as organizations become more fluid and less able to guarantee employment security" (p. 159).

Background of the Study

Workplace commitment has occupied the thoughts of researchers for some time (e.g., Blau, 1985; Blood, 1969; Dubin, 1956; Gouldner, 1957; Kanungo, 1982; Lodahl & Kejner, 1965; Meyer & Allen, 1984). In fact, research activity has been so high that over 25 measures of work commitment were generated from 1956 to 1983. Unfortunately, many of these measures were partially redundant or indistinct from each other (Morrow, 1983).

In an attempt to clarify this area of research, Morrow (1983) identified five predominant work commitment foci: (a) career commitment (e.g., career salience), (b) job commitment (e.g., job involvement), (c) organizational commitment, (d) individual work values (e.g., Protestant work ethic), and (e) union commitment (e.g., loyalty to bargaining unit). Of these five foci, the career commitment construct has lagged developmentally because of a lack of established measures (Morrow & Wirth, 1989).

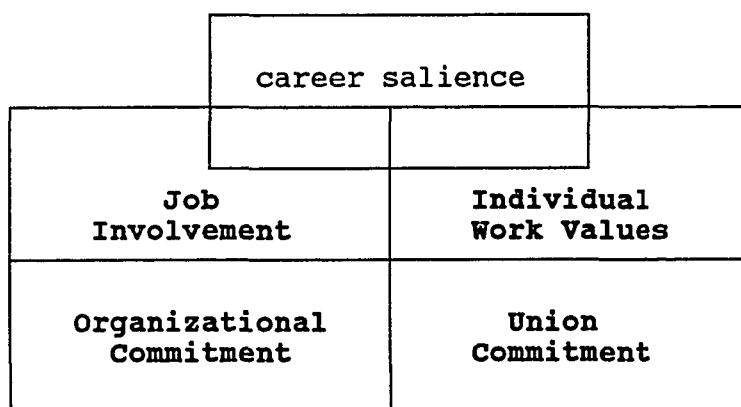
The purpose of the reported research was to construct and test a theoretically based measure of work commitment representing the career focus domain so as to facilitate development in this area.

Operationalizing career commitment has been problematic because of its vague boundaries. This vagueness seems to result from a lack of agreement about what constitutes a career. At least three definitions of "career" exist. One definition describes a career as a series of jobs held during a person's lifetime (Greenhaus, 1987). Unfortunately, this definition is difficult to operationalize because of its breadth. A second definition of career commitment is synonymous with professionalism, meaning identification with and involvement in one's profession (Hall, 1976; Morrow & Wirth, 1989). This emphasis is quite narrow since it only includes those in professions. A third definition, used in this dissertation, describes career commitment as stability and continuance in one's vocation (cf. Van Maanen & Schein, 1977). This definition is broader than the second definition above, yet sufficiently specific when contrasted to the first definition. A review of attempts to operationalize all three definitions mentioned above follows.

Definition #1: Broad Operationalization of Career Commitment

Greenhaus (1973) developed a 28-item measure of career salience with three subscales measuring, respectively: (a) general attitude toward work, (b) vocational planning, and (c) relative importance of work. Though his broad operationalization of career commitment initially looked promising, it was described as redundant with commitment foci dealing with job involvement and individual work values (Blau, 1985; Morrow, 1983; see Figure 1.1).

Figure 1.1
Contamination of Career Commitment

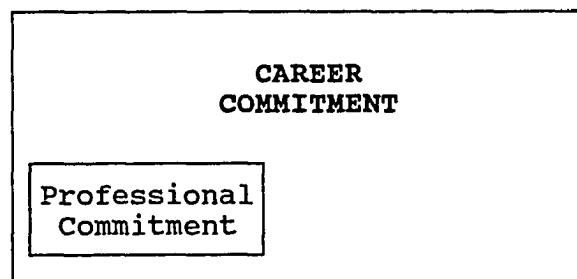


Definition #2: Professionalism and Career Commitment

Whereas measurement of career salience is contaminated with other forms of work commitment, the measurement of professionalism (Hall, 1968; Morrow &

Goetz, 1988; Morrow & Wirth, 1989) is deficient in that it represents only a small part of the career focus domain (see Figure 1.2). Professionalism is a representative construct of the career focus domain, but it does not represent the entire career commitment construct (Morrow & Wirth, 1989).

Figure 1.2
Professionalism as Part of Career Commitment



To demonstrate professional commitment, one must first be working in a profession. However, according to the U.S. Census Bureau (1985), only about 15% of the labor force were considered professionals in 1980 (Morrow & Wirth, 1989). Six criteria can be used to differentiate occupations from "ideal" professions: (a) technical knowledge, (b) advanced education and training, (c) formal testing and control of admission, (d) professional association, (e) codes of conduct or ethics, and (f) commitment or calling (Benveniste, 1987). An "ideal" profession would be above average in all six criteria (cf.

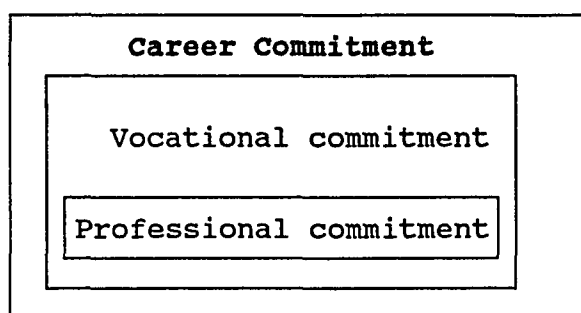
Blau, 1989; Kerr, Von Glinow, & Schriesheim, 1977).

Beyond working in a profession, one needs to be identified with and involved in a profession in order to be professionally committed. Hall (1968) identified five attitudes of professionalism: (a) profession as a major referent, (b) autonomy, (c) sense of calling, (d) self-regulation, and (e) service. Since one must not only work in a profession but also exhibit professionalism in order to be professionally committed, this construct represents a restrictive operationalization of the career commitment domain.

Definition # 3: Vocational and Career Commitment

Blau (1989) suggests that a profession is a special type of vocation and defines career commitment as a one's attitude toward one's "vocation, including a profession" (p. 295). While the concept of vocational commitment is based upon professionalism, the expansion from profession to vocation does allow a broader career commitment construct representation (see Figure 1.3). Additionally, Blau's (1985) career commitment measure has been shown to have good discriminant validity (Blau, 1985, 1988, 1989).

Figure 1.3
Vocation as Part of Career Commitment



Despite support, there are numerous problems with Blau's (1985) measure. First, it displays inadequate variance across occupational groups. With Blau's (1985) operationalization of career commitment, there should be a lower professional boundary beyond which workers do not distinguish commitment to vocations from commitment to jobs or organizations (Blau, 1989). At this lower boundary, many workers have jobs, not careers (Morrow & Goetz, 1988). However, Blau's (1985) measure does not differentiate the career commitment of nurses (Blau, 1985; Bedeian, Pizzolatto, & Kemery, in press) from the career commitment of bank tellers, two occupational groups quite distinct in professional characteristics (Blau, 1989).

Second, the Blau (1985) measure was not theoretically developed, lessening the assurance that it possesses adequate content validity (Nunnally, 1978). Blau merely

borrowed items from past research emphasizing professional commitment (Price & Muller, 1981), occupational commitment (Downing, Dunlap, Hadley, & Ferrell, 1978), and career orientation (Liden & Green, 1980). London (1983) has offered a theory of career motivation that should facilitate developing a theoretically based measure. His theory of career motivation would seem to be applicable to the commitment construct since career commitment can be defined as "one's motivation to work in a chosen career role" (Hall, 1971, p. 59).

Finally, it is unlikely that Blau's (1985) measure captures all the variance in the career commitment construct because his operationalization is unidimensional rather than multidimensional (cf. Schwab, 1980). Rather than one dimension, there are three theoretical dimensions in the career commitment construct. The three major factors identified by London (1983) are: (a) career identity (e.g., recommending career to others), (b) career planning (e.g., identifying specific career goals), and (c) career resilience (e.g., changing behaviors to meet changing career demands). London (1983) listed several individual characteristics, career decisions, and career behaviors associated with these three dimensions which can be used to generate items for a theoretically based career commitment measure.

Problem Statement

The purpose of the current dissertation was to develop a theoretically based career commitment measure. Past career commitment measures have been redundant with other work commitment measures (e.g., Greenhaus, 1973; Marshall & Wijting, 1982) or have been narrowly defined as professionalism (e.g., Hall, 1969; Morrow & Wirth, 1989). Blau's (1988) definition of career commitment as "one's attitude towards one's vocation" (p. 298) seems to most closely represent this construct. However, Blau's (1985) measure shows inadequate variance across occupational groups. This problem may be due to its unidimensional rather than a theoretically based, multidimensional explication. The following methodology was used to develop and test a new career commitment measure.

Outline of Methodology

Development of a new measure occurred in three major phases (cf. Scarpello & Vandenberg, 1987): (a) item generation and content validity, (b) pretests and reliability assessment, and (c) field test and construct validity. An overview of these phases as enacted in the present dissertation follows. Methodological specifics are addressed in a subsequent chapter.

Phase 1: Item Generation and Content Validity

Phase 1 included item generation, evaluation of content validity, and scale construction. First, the three theoretical dimensions identified by London (1983) were carefully defined, taking into account definitions of other work commitments. Based on these carefully worded definitions, numerous items were generated that tapped these dimensions. Knowledgeable judges were then used to classify the generated items into London's (1983) three theoretical dimensions. Other independent judges were also called upon to determine if each group of classified items captured the dimension of interest.

Phase 2: Pretests and Reliability Assessment

In Phase 2, two sequential pilot studies were conducted to assess individual items and establish the new measure's reliability. There were at least five respondents per item (Nunnally, 1978) for both pretests. Pretests were conducted with part-time and full-time employees representing diverse occupational groups.

The major objective of the two pretests was to develop a reliable measure. Nunnally (1978) suggests as a guideline that reliabilities should be above .70 in early stages of research. Items lowering dimensions' internal consistency were deleted (Churchill, 1979). To empirically confirm the three theoretical dimensions of

career commitment, principal component analysis was conducted (Hair, Anderson, & Tatham, 1987; Stewart, 1981).

Phase 3: Field Test and Construct Validity

In Phase 3, a field test was conducted with employees representing several occupational groups. The number of respondents in the final sample was based on criteria established by Cohen (1977). The final sample included distinct groups exhibiting various levels of professional characteristics.

Construct validity was of primary importance in this third phase. Construct validity consists of three subtypes: (a) convergent validity, (b) discriminant validity, and (c) nomological validity (Campbell & Fiske, 1959; Green et al., 1988).

With convergent validity, the correspondence among the new and previously published career commitment measures was assessed. The correlations among the variables were reported in a complete (triangular) disclosure matrix. This matrix was examined to assess the convergent validity of the three measures of career commitment.

With discriminant validity, independent measures should assess different constructs (Campbell & Fiske, 1959). For example, organizational researchers have been interested in assessing the discriminant validity of

organizational commitment, job satisfaction, and job involvement (Brooke, Russell, & Price, 1988; Mathieu & Farr, 1991). Though no specific level of relationship between constructs is suggested by researchers, correlations in the range of .20 (Loehlin, 1987) to .40 (Morrow & Goetz, 1988) have been used to demonstrate discriminant validity.

With nomological validity, a researcher is concerned with testing the linkages between a focal measure and theoretically appropriate variables (Green et al., 1988; Schwab, 1980). Confirmatory factor analysis was used to evaluate discriminant and nomological validities. Confirmatory factor analysis was also used to assess the unidimensionality of the three theoretical factors in the new career commitment measure (Loehlin, 1987).

In addition to construct validity, the external validity of the new career commitment measure was assessed. The measure should display adequate variance across occupational groups. Those groups higher in professional characteristics should generally exhibit higher career commitment than those groups lower in professional characteristics (Blau, 1985). There should be a lower professional boundary beyond which workers do not distinguish commitment to careers from commitment to jobs and organizations (Blau, 1988, 1989). Analysis of covariance (ANCOVA) and multivariate analysis of

covariance (MANCOVA) were used to assess external validity. Following MANCOVA, discriminant analysis was conducted to assess the contribution of each variable in discriminating among the groups (Hair et al., 1987).

In summary, this rigorous methodological outline provided a framework for developing a psychometrically sound career commitment measure. Development of reliable, valid measures was essential for substantive research in the career commitment domain. Too often in organizational research, modest relationships between constructs have been interpreted as failure of theory when failure of measurement was the problem (Schwab, 1980).

Dissertation Overview

In this dissertation, a literature review of existing career commitment measures was conducted and the adequacy of these instruments was examined. Following this, methodology for developing a new career commitment measure was presented. Items generated for this measure were consistent with London's (1983) theoretical framework. These items were reviewed by independent judges. Psychometric properties were then assessed in two pretests, and the resulting measure was field tested.

CHAPTER TWO

Literature Review

Introduction

The purpose of Chapter Two is to review literature relevant to developing a new career commitment measure. Major deficiencies and limitations of relevant career commitment measures are identified. Means of resolving these limitations are discussed.

The plan of Chapter Two is as follows:

1. Review major career commitment measures noting conceptual and measurement deficiencies.
2. Summarize and integrate deficiencies of career commitment measures.
3. Examine relevant definitions of career commitment and propose a theoretical foundation that appropriately fits with an acceptable definition of career commitment.
4. Identify a research plan for developing the new career commitment measure.

Measurement of Career Commitment

Numerous work commitment measures have been reported in the organizational behavior literature. Morrow (1983)

notes that there were approximately 30 published work commitment measures at the time of her review. Examples are Protestant work ethic (Blood, 1969; Mirels & Garret, 1971), professional commitment (Sheldon, 1971); career salience (Almquist & Angrist, 1971; Greenhaus, 1971); job involvement (Kananugo, 1982; Lodahl & Kejner, 1965); and organizational commitment (Buchanan, 1974; Hrebiniak & Alutto, 1972; Porter et al, 1974). Morrow (1983) suggests that these work commitment variables be divided into five distinct groups or foci. These foci are career, organization, union, job, and individual values.

However, Morrow (1983) indicates that many of the measures purporting to assess different foci are redundant. That is, commitment instruments have typically measured more than one focus, causing interpretive problems. For example, redundancy exists among work commitment measures such as central life interests (Dubin, 1956), job involvement (Lodahl & Kejner, 1965), and career salience (Greenhaus, 1971). Although Morrow (1983) called for reduction of this redundancy, the problem persists (Morrow & McElroy, 1986). As the purpose of the dissertation was to investigate the career commitment foci for development of a career commitment measure, this review begins by focusing on career commitment measures that overlap with other foci.

Redundant Career Commitment Measures

The career salience measure developed by Greenhaus (1971) is an important attempt to gauge one's commitment to one's occupation or profession over an extended period of time. Greenhaus (1971) defines career salience as "the importance of work and career in one's total life" (pp. 209-210). It is measured by 28 items. Twenty-seven of the 28 items are anchored on a five-point scale, while the last item lists six major areas in a person's life (e.g., career, family, and leisure time) and asks respondents to rank order these in importance to their lives.

Career salience is a multidimensional construct with three major factors, according to Greenhaus (1973). The first factor deals with one's general attitudes toward work. Two sample items are: "Work is one of those necessary evils" and "It is difficult to find satisfaction in life unless you enjoy your job." The second factor deals with degree of vocational planning. Two of these items are: "Planning for a specific career is usually not worth the effort" and "I enjoy thinking about and making plans about my future career." The third factor is relative importance of work and is tapped by items such as: "I intend to pursue the job of my choice even if it cuts deeply into the time I have for my family" and "I intend to pursue the job of my choice, even if it allows only very little opportunity to enjoy my friends."

Internal consistency of the 27 five-point items has ranged from .74 (Greenhaus & Sklarew, 1981) to .90 (Beutell & Greenhaus, 1982). In addition to this measure, a 6-item version consisting of two items for each factor has been used. Its reliability has been slightly lower, ranging from .72 (Greenhaus & Kopelman, 1981) to .83 (Greenhaus & Simon, 1977). Internal consistency for both the long-form and short-form is well above the .70 level considered acceptable for initial research (Nunnally, 1978).

Because of its psychometric properties, Greenhaus' (1973) career salience measure initially looked promising. Though there was no empirical evidence for her assertions, Morrow (1983) points out that this measure is theoretically redundant with other types of work commitments. For example, the first factor of career salience, general attitude towards work, overlaps with Lodahl and Kejner's (1965) job involvement or ego involvement in one's job and with Blood's (1969) Protestant work ethic endorsement or the intrinsic value of work. The third factor of career salience, relative importance of work, is redundant with Dubin's (1956) central life interest measure which gauges whether work is a central life interest or whether other areas in a respondent's social environment are more important.

In addition to the career salience measure, three

other measures of career commitment are redundant with other work commitment measures. These were developed by Almquist and Angrist (1971), Gannon and Hendrickson (1973), and Marshall and Wijting (1980, 1982). All of these researchers define career commitment similarly as the "intention of steadily pursuing a career throughout life" (Marshall & Wijting, 1980, p. 299).

Marshall and Wijting's (1980, 1982) career commitment factor taps the extent that work figures into one's future plans. Respondents indicate which of six life plans, ranging from exclusive participation in the home to an interrupted career, most closely matches their own. Similarly, Almquist and Angrist (1971) ask respondents to indicate their adult role aspirations, while Gannon and Hendrickson (1973) ask if job or family is more important to a respondent. Also, these three measures ask respondents if they would continue to work under different situations. For example, Marshall and Wijting (1980, 1982) instruct respondents to rate on 5-point scale their desire to work in 17 hypothetical situations defined by a combination of marital status, financial circumstances, and number and age of children. Similarly, Gannon and Hendrickson (1973) have items such as: " I would come to work if my 9 year old son were home from school sick with a cold". Almquist and Angrist (1971) ask respondents if they would want to work with two or more children of

school age and when spouses's salary is adequate.

Though reliabilities were not reported for the measures developed by Almquist and Angrist (1971) and Gannon and Hendrickson (1973), Marshall and Wijting's (1980, 1982) are acceptable, ranging from .72 to .86. Despite these reliabilities, all three measures are redundant with other work commitment measures. For example, where Marshall and Wijting's (1980, 1982) measure asks to what extent work activities fit into life plans, Kanungo's (1982) work involvement measure asks if work is central to life. Further, these career commitment measures appear to be redundant with Dubin's (1986) central life instrument measure. Though there is no empirical evidence, these three career commitment measures appear to lack utility because of redundancy problems. Career commitment measures operationalized as professionalism, an appropriate concept for representing the career commitment domain (Morrow & Wirth, 1989), overcome this redundancy but introduce other problems.

Measurement of Professionalism

Interest in commitment to one's profession began with Gouldner (1957). He suggests that there are "cosmopolitan" workers who, rather than being loyal to a specific organization, are loyal to an outside referent, their professional group. "Local" workers, in contrast,

are committed to an employing organization and are likely to have an internal referent group. Gouldner (1957) indicates that cosmopolitans are likely to be mobile, moving from organization to organization, but are likely to be stable in their careers. Locals, on the other hand, typically remain with one organization. Gouldner (1957, 1958) suggests that professional commitment and organizational commitment are incompatible. An employee is either aligned with an organization or with a profession.

The suggestion that organizational commitment and professional commitment are incompatible has generated a great deal of interest. While some support Gouldner's (1957) "incompatibility hypothesis" (e.g., Gouldner, 1958; Sorenson & Sorenson, 1974), others report that the two commitments are not antithetical (e.g., Aranya & Ferris, 1984; Sheldon, 1971; Thornton, 1970). In fact, several researchers suggest a positive relationship between professional commitment and organizational commitment (e.g., Bartol, 1979; Hrebiniak & Alutto, 1972; Norris & Niebuhr, 1983).

Despite evidence that organizational commitment and professional commitment need not be incompatible, this orientation is used in some instruments. For example, in the measurement of substitutes for leadership, Kerr & Jermier (1978) gauge professional orientation with three

items that reflect concern with an internal or external reference group. Two of these items are: "I receive very useful information and guidance from people who share my occupational specialty, but who are not members of my employing organization" and "My job satisfaction depends to a considerable extent on people in my occupational specialty who are not members of my organization." This same orientation of commitment incompatibility is reflected in Sheldon's (1971) research. She asked Ph.D. scientists in a private setting to choose between two statements: "I would most like to make a major contribution to one of the laboratory's projects" versus "I would most like to publish a paper in the leading journal of my profession even though the topic might be of minor interest to the laboratory."

Whereas early research focused on organizational commitment versus professional commitment, the latter has become a legitimate concept in its own right (Hall, 1968) and has received increasing attention (e.g., Aranya, Pollock, & Amernic, 1981; Blau, 1985; Morrow & Wirth, 1989). Unlike previous career commitment measures, professional commitment avoids redundancy with other work commitment measures by falling well within the career commitment domain. However, it represents only a fraction of this domain (Morrow & Wirth, 1989). According to the U. S. Census Bureau (1985), only about 13.7% of the labor

force were professionals in 1970 and, and noted, about 15.5% were professionals in 1980. The U. S. Department of Labor (1989) reports that in 1988, 23.4% of the labor force were in managerial positions and professional specialties. In addition to this increasing percentage, there is a trend for members of many occupational groups, such as secretaries (Daniels, 1982), to consider themselves professionals (Cherniss & Kane, 1987). However, based on government figures, professional groups still represent only a small part of the labor force (U.S. Census Bureau, 1985; U. S. Department of Labor, 1989).

To be committed professionally, one must first be a professional. Professionals are granted certain amounts of power and prestige by society because they possess important knowledge and skills (Goode, 1957; Parsons, 1954). In return, society expects professionals to be dedicated to providing service (Aranya et al., 1981; Larson, 1977). Unfortunately, there is no clear definition of a profession. To determine a profession, typically researchers merely list particular characteristics associated with professions and then assess if a particular occupation meets those characteristics.

A number of different criteria have been used to differentiate professionals from other occupations. Mace (1952), for example, suggests that a profession possesses

a body of learning and recorded experience, a tradition, a code of ethics, restricted recruitment and training, and the use of complex skills. Though work groups can exhibit inconsistencies and contradictions in professional characteristics (Pavalko, 1971), Kerr et al. (1977) indicate that ideally professionals are characterized by expertise, autonomy, commitment to a work, identification with a profession, ethical codes, and peer standards. In a most recent and thorough review of the literature, Benveniste (1987) reduced 20 previously identified sets of characteristics for differentiating occupations from professions into six criteria. These are: (a) technical knowledge, (b) advanced education and training, (c) formal testing and control of admission, (d) professional association, (e) codes of conduct or ethics, and (f) commitment or calling.

Professional commitment not only requires that one belong to a profession but also be committed to that profession. Schein (1968) suggests that there are a number of characteristics associated with professionalism or one's identification with a profession. These include expertise, theoretical knowledge, objective decision making, status through accomplishment, decision making independent of self-interest, collegial authority, and ethical standards.

Hall (1968) was the earliest to operationalize

professionalism. He defines five theoretical dimensions in this operationalization. These include: (a) use of the professional association as a major referent, (b) belief that the work benefits the public, (c) belief that the most qualified judge of the work is a fellow professional, (d) dedication or sense of calling to the work, and (e) autonomous decision making without external pressure.

Hall (1968) developed 50 items to tap the five theoretical professionalism dimensions. Later, Snizek (1972) factor analyzed these items and found that a number displayed unacceptable loadings on their corresponding theoretical dimension. Thus, he recommended five rather than ten items for each of the five theoretical dimensions. He reported reliability levels ranging from .46 to .76 for the subscales on Hall's (1967) 50-item measure. On the revised 25-item measure reliabilities range from .58 to .74. Of particularly poor reliability is the sense of calling subscale (Snizek, 1972).

In addition to this reliability problem, retained items in the revised measure did not correlate well with the appropriate dimension. For instance, Bartol (1979) could use only 20 of the 25 items identified by Snizek (1972). Five items had to be removed because of low or split loadings. Morrow and Goetz (1988) reconfirmed that reliabilities of the subscales remained poor, ranging from .49 to .75. These problems in combination with the length

of these professionalism measures, have resulted in their infrequent use. Thus, Morrow and Wirth (1989) suggest that other approaches to measuring professional commitment be considered.

Modification of Commitment Measures

Rather than developing a measure of professional commitment from a distinct theoretical base, some researchers have assumed that the measurement of professional commitment is parallel to organizational commitment (e.g., Aranya & Ferris, 1984; Aranya et al., 1981; Colarelli & Bishop, 1990; Lachman & Aranya, 1986; Morrow & Wirth, 1989). These researchers have modified the 15-item Organizational Commitment Questionnaire (OCQ; Porter, Steers, Mowday, & Boulian, 1974) to measure professional commitment. This revision involved merely replacing the word "profession" with "organization".

Organizational commitment has become almost synonymous with the OCQ (Reichers, 1985) and is defined as an employee's identification with and involvement in an organization (Porter et al., 1974). The OCQ taps three factors: (a) an employee's acceptance and identification with an organization's goals and values, (b) an employee's willingness to exert extra effort on behalf of an organization, and (c) an employee's intent and desire to remain a member of an organization (Mowday, Steers, &

Porter, 1979). Parallel to the OCQ, professional commitment is defined as an individual's identification with and involvement in a profession. This, too, is characterized by three factors: (a) an individual's acceptance and identification with professional goals and values, (b) an individual's willingness to exert extra effort on behalf of a profession, and (c) an individual's intent and desire to remain a member of a profession (Aranya et al., 1981).

Morrow and Wirth (1989) examined the factor loadings of the OCQ after substituting the word "profession" for "organization". Items loaded on two dominant factors. One indicated commitment to a profession. The other described intention to remain in a profession. Because loadings on the second factor, intention to remain in a profession, were split with other factors, Morrow and Wirth (1989) eliminated it. They suggest that the remaining 10 of 15 items represent a unidimensional concept of professional commitment. Thus, the OCQ has three factors while the parallel professional commitment measure has only one. The factor differences between professional and organizational commitments suggest that professional commitment may have a different theoretical base than organizational commitment.

In addition to measures of professional commitment, the OCQ has been similarly revised to measure career

commitment. Colarelli and Bishop (1990) used 14 of the 15 items of the OCQ, making minor wording changes and substituting the word "career" for the word "organization". With inclusion of four original items developed by these authors, they report reliabilities from .92 to .94. However, discriminant validity appears to be a problem as the OCQ and the career commitment measures were correlated at the .52 level ($p \leq .01$). These measures may not be tapping completely different constructs. In addition, Colarelli and Bishop (1990) did not factor analyze the resulting measure. Thus, they retained items tapping intention to remain. These items were dropped by Morrow & Wirth (1989).

Many studies have demonstrated that intention to remain in an organization is significantly and consistently related to turnover and is its single best predictor (Steel & Ovalle, 1984). Because the OCQ has intention to remain items, it appears that the relationship between organization commitment and turnover may be artifactual in that the OCQ is measuring commitment in terms of turnover intentions (Reichers, 1985). To test this, Hom and Hulin (1981) partialled out the intent to remain items from the OCQ. They report that when behavioral intentions to remain are not included in the measure, organizational commitment is neither strongly correlated with turnover nor is it a good predictor of

this dependent variable. Thus, Colarelli and Bishop's (1990) retention of the intent to remain items may raise questions when predicting career turnover.

In addition to the OCQ, organizational commitment measures based on Becker's (1960) "side-bet" theory have been modified by career researchers (e.g., Colarelli & Bishop, 1990; Ritzer & Trice, 1969). Becker's (1960) theory suggests that employees build up investments that are lost if they leave an organization. These investments are often assumed to be economic and include nonportable pension plans, tenure, and job security (McGee & Ford, 1987; Meyer & Allen, 1984).

Despite Becker's (1960) theoretical base for organizational commitment, attempts to modify these measures for career commitment have been unsuccessful. Career researchers have changed these measures by substituting "career" or "occupation" for organization (e.g., Colarelli & Bishop, 1990; Ritzer & Trice, 1969). However, as noted by Meyer and Allen (1984), these older measures of the "side-bet" theory (e.g., Alutto, Hrebiniak, & Alonso, 1973; Ritzer & Trice, 1969) do not tap commitment as originally conceptualized by Becker (1960).

Vocation as Referent

Rather than merely substituting the word "career" for "organization" (e.g., Colarelli & Bishop, 1990), Blau (1985) more specifically operationalizes career commitment as "one's attitude towards one's profession or vocation" (p.278). He reasoned that the more restrictive referents of profession and vocation avoid redundancy with other work commitment measures. His initial 8-item measure (Blau, 1985) was constructed using items from three previously developed measures: (a) career orientation (Liden & Green, 1980), (b) occupational commitment (Downing et al., 1978), and (c) professional commitment (Price & Mueller, 1981).

While career orientation has been defined in a number of different ways (e.g., Greenhaus, 1971; Liden & Green, 1980; Jans, 1982; Marshall & Wijting, 1982), the four items from Liden and Green's (1980) measure emphasize one remaining in one's profession. An example of these items is (Blau, 1988): "If I could go into a different profession other than the (insurance) profession which paid the same, I would probably take it." The three items taken from Downing et al. (1978) deal with making a good choice in selecting a profession. An example of these items is (Blau, 1988): "I am disappointed that I ever entered the (insurance) profession." The final item from Price and Mueller (1981) asks how much time respondents

spend reading professional journals and books. This item was later dropped by Blau (1988), making a 7-item measure of career commitment.

Internal consistency of Blau's (1985) measure has been found to be acceptable, ranging from .82 (Blau, 1989) to .85 (Blau, 1985). In addition, there has been support for the measure's discriminant validity. With a sample of registered nurses, Blau (1985) reports that his career commitment measure was unidimensional, loading on one factor. This factor was different from those items forming the organizational commitment and job involvement factors. Similar findings were reported with first-line supervisors in the newspaper industry and with college trained field-office personnel in the insurance field (Blau, 1988).

Support for discriminant validity was also reported with a sample of bank tellers (Blau, 1989). Thus, Blau's (1985) measure displayed discriminant validity across three different studies involving four different professional levels represented by nurses, college-level field representatives, first-line supervisors, and bank tellers. However, this discriminant validity across samples inadvertently reveals a problem with this measure.

As Blau (1988, 1989) points out, there is a minimum level of professional characteristics beyond which career commitment should become meaningless. Thus, one would

expect that janitors, factory workers, or bank tellers are more likely committed to a job or an organization rather than a career. In support of this reasoning, Darden, Hampton, and Howell (1989), using a revised organizational commitment measure, found that entry-level salespersons do not distinguish between a commitment to a career in retailing and a commitment to the organization in which a career exists.

Blau (1988) attempts to explain the lack of differences in career commitment among occupational groups by describing the first-line supervisors and the insurance field office employees he studied as "partially professional" (p. 295). Since bank tellers are low in professional characteristics, he suggests that this sample displayed high career commitment because of potential high job mobility. However, based on his own findings (Blau, 1985, 1988, 1989), organizational mobility should be more related to job involvement and organizational commitment than career commitment. Thus, an inherent weakness in Blau's (1985) measure is that it fails to display sufficient variance across groups with different levels of professional characteristics.

Supporting discriminant validity of his measure further, Blau (1985, 1988, 1989) reported career commitment as consistently predicting career withdrawal cognitions. With a sample of nurses, the correlation

between career commitment and career withdrawal cognitions is reported at $r = -.41$ ($p \leq .01$); with an insurance sample, $r = -.36$ ($p \leq .01$); with a bank teller sample, $r = -.33$ ($p \leq .01$). Since four of Blau's (1985) items deal with remaining in a profession (Liden & Green, 1980), it is not surprising that his measure is highly correlated with career withdrawal cognitions. However, as with OCQ items tapping intent to remain, the findings may be the result of overlapping constructs.

In summary, Blau's (1985) measure is reliable. It does show discriminant validity with job involvement and organizational commitment. However, its intention to remain items are problematic. Blau (1985, 1988) did not theoretically develop his 7-item measure, but merely borrowed items from past research emphasizing remaining in a profession (Downing et al., 1978) and correctness of career choice (Liden & Green, 1980). Thus, his measurement is a unidimensional operationalization of one's attitude toward one's profession or vocation which shows inadequate variance across occupational groups.

Summary of Measurement Issues

Career salience, defined as the importance of work and career in one's life (Greenhaus, 1971), was an initially promising measure of career commitment.

Greenhaus' (1971) career salience measure, however according to Morrow (1983), is redundant with measures of job involvement (Lodahl & Kejner, 1965), Protestant work ethic endorsement (Blood, 1969), and central life interest (Dubin, 1956). Other measures developed to assess career commitment (Almquist & Angrist, 1971; Gannon & Henrickson, 1973; Marshall & Wijting, 1980, 1982) appear to be similarly redundant with other work commitment measures.

Professionalism is defined as identification with one's profession (Hall, 1968) and falls within the career commitment domain (Morrow & Wirth, 1989). However, professionals represent only a fraction of the workforce. Thus, professional commitment measures omit nonprofessionals who may be committed to their vocations. Additionally, weaknesses of the professional commitment measures have been presented.

Professional commitment and career commitment researchers have frequently modified organizational commitment measures for their purposes (e.g., Aranya & Ferris, 1984; Aranya et al., 1981, Colarelli & Bishop, 1990). However, where the OCQ loads on three factors (Mowday et al., 1979), the revised OCQ for professional commitment loads on one factor, suggesting that these constructs have different underlying theoretical dimension. In addition, the intent to remain items create problems in examining career turnover.

Blau's (1985, 1988) measure is the most promising attempt to measure career commitment thus far. His operationalization of career commitment is restricted to professional and vocational referents. Therefore, redundancy problems are avoided. In addition, his measure is reliable. However, the intention to remain items create problems in career turnover research. Also, there is a problem with inadequate variance across occupational groups. This may result from lack of a theoretical base in measure development, as his measure was constructed by merely combining items from existing measures (Downing et al., 1978; Liden & Green, 1980).

Theoretical Development of a New Measure

London's (1983) theory of career motivation can be applied to career commitment. Career motivation is appropriate as a theoretical base for career commitment (cf. Blau, 1985) because career commitment can be defined as the "strength of one's motivation to work in a chosen career role" (Hall, 1971, p.59).

Rather than a unidimensional operationalization of career commitment, London's (1983) theory provides for a multidimensional operationalization. London (1983) indicates that career motivation has three underlying

dimensions: (a) career identity (e.g., recommending career to others), (b) career planning (e.g., identifying specific career goals), and (c) career resilience (e.g., changing behaviors to meet changing career demands).

London (1983) provides a list of career decisions and behaviors can be used to generate items for the three theoretical dimensions of the new career commitment measure (see Table 2.1). Examples of career identity are: "furthering advancement possibilities" and "setting career goals aimed at managerial positions." Examples of career planning include: "identifying specific career goals" and "working harder on projects that will affect one's career than on routine tasks." Finally, career resilience examples are: "readily learning new procedures, rules, technology, etc." and "requesting projects that use one's skills and expertise."

A major difficulty with this long list of behaviors and decisions is that they may overlap with other work commitments. For example, working long hours is associated with job involvement (Kanungo, 1982; Lodahl & Kejner, 1965) while staying with an organization demonstrates organizational commitment (Porter et al., 1974). Sacrificing nonwork activities for work is redundant with the central life interest construct (Dubin, 1956). Because of this redundancy problem, a clearer conceptualization of career commitment must be developed.

Table 2.1
Career Decisions and Behaviors in London's (1983) Theory
of Career Motivation

I. Domain I: [Career identity (individual characteristic) - how central one's career is to one's identity.] Career identification (decisions and behaviors) - establishing career plans, giving up something of value for one's career, etc.

A. Work involvement subdomain:

Demonstrating job involvement - working long hours, recommending the work to others

Professional behavior - enhancing one's prestige in the profession, describing oneself as a professional rather than as an employee of the organization

Managerial striving - using and improving managerial skills, setting career goals aimed at managerial positions.

Demonstrating organizational commitment - staying with the organization, investing in it, describing oneself as an employee of the organization

Showing devotion to work - sacrificing non-work activities and responsibilities for work (e.g., relocating one's family, working overtime)

B. Desire for upward mobility subdomain:

Striving for advancement - furthering advancement possibilities (e.g., establishing a career path, requesting to be considered for promotion)

Seeking recognition - attracting attention (e.g., volunteering for important assignments, communicating work results to higher management)

Trying to lead - requesting and assuming leadership roles

Striving for money - requesting a raise, changing jobs for a higher paying position, etc.

II. Domain II: [Career insight (individual characteristic) - realistic perceptions of oneself and the organization and relating this to career goals.] Career planning (decisions and behaviors) - seeking career information and performance feedback, setting career goals

Table 2.1 (continued)

Making changes - initiating change, expressing enthusiasm for new experiences and boredom with old experiences

Responsiveness to social conditions - altering behavior to fit the situation, seeking information and personal contacts to take advantage of organizational processes

Self-monitoring - keeping track of one's performance, trying to strengthen weaknesses than can be developed, and seeking assignments that use one's strengths

Forming and expressing realistic expectations - seeking information, comparing one's expectations to others

Decision making behavior - seeking and evaluating alternatives and information, not wavering once alternatives are evaluated or regretting decisions after they are made

Instrumental behavior - working harder on projects that will affect one's career than on routine tasks, planning for the future and acting on those plans

III. Domain III: [Career resilience (individual characteristic) - the person's resistance to career disruption in less than optimal environment.] Increasing individual effectiveness (decisions and behaviors) - demonstrating initiative, purposive action, and high performance. The opposite is decreasing individual effectiveness - demonstrating withdrawal, anxiety, and confusion (e.g., absenteeism, task avoidance, physical and/or psychological symptoms of stress, low performance)

A. Self-efficacy subdomain:

Showing belief in oneself - requesting difficult assignments, expressing one's ideas, constructively dealing with criticism

Striving for autonomy - choosing to work alone, taking independent action, not asking for assistance

Demonstrating adaptability - changing behaviors to meet changing demands, readily learning new procedures, rules, technology, etc.

Taking control - working hard to obtain valued outcomes, requesting assignments, promotions, and raises

Table 2.1 (continued)

Seeking development - taking courses, keeping up with developments in one's field, improving one's skills

B. Risk taking subdomain:

Taking risks - suggesting ideas contrary to those of others, taking a job with high rewards but little security, assuming responsibility for one's behavior

Response to failure (or potential failure) - withdrawing from difficult situations, working in groups to avoid individual accountability

Seeking security - keeping a secure job even though advancement possibilities and salary may be better elsewhere

C. Dependency subdomain (negatively related to career resilience):

Competing - taking jobs or assignments for which rewards are based on competition, trying to advance faster and farther than one's peers

Waiting for career direction - waiting for information about career development, expressing the belief that the organization has a career plan for each individual

Note. Entire list of career behaviors and decisions can be found in London's (1983) article (pp. 622-624).

One difficulty with measuring career commitment is that the word "career" introduces a great deal of ambiguity. Individuals perceive the word "career" differently. Driver (1979) illustrates this point as he suggests that each person has a relatively stable concept of his or her career. Four possible career concepts are identified: (a) steady state, (b) linear, (c) spiral, and (d) transitory. A steady state career concept refers to

an individual who remains in an occupation and maintains necessary skills for that particular occupation. Those with a linear career concept are long-term achievers who move upward through managerial or occupational ranks. A spiral career concept refers to an individual who is motivated by self-growth. This career prototype makes a career move every 5 or 10 years that is sometimes lateral or even downward. Finally, individuals with a transitory career concept seek excitement and pay little attention the future. They frequently change positions in typically low level occupations, usually in a lateral direction.

Greenhaus (1987) provides a general definition of career as "the pattern of work-related experiences that span the course of a person's life" (p. 6). As noted, this definition is too broad to be operationalized. It seems contradictory to suggest that those with a transitory career concept might exhibit high career commitment since continuity (Quadagno, 1978) and career resilience (London, 1983) are necessary factors in career commitment. Similarly, those with a spiral career pattern lack career resilience since they often change vocations in search of self-development.

Linear and steady state prototypes represent two themes in the meaning of career. The first theme, characterizing a linear prototype, is advancement (Hall, 1976; Van Maanen & Schein, 1977). This theme implies that

a person who experiences no advancement has no career, an obviously narrow career definition. The second theme characterizing a steady state prototype, is stability in a field or closely connected fields (Van Maanen & Schein, 1977). Many individuals with linear and steady state career concepts should exhibit career commitment with their emphasis on advancement and stability. In contrast, the transitory and spiral career prototypes would not exhibit career commitment due to a lack of stability. Thus, one would expect to see variance across these career prototypes. In addition, one would also expect to see variance in career commitment within these categories. For example, steady state prototypes may be attitudinally committed, motivated by a sense of identity and competence, or they may be economically committed, motivated by investments and lack of alternatives (cf. Becker, 1960). Thus, commitment can be defined from an attitudinal (affective) viewpoint, or an economic (continuance) viewpoint.

Affective commitment is defined as identification and involvement (Morrow & Wirth, 1989; Mowday et al., 1979). Continuance commitment is attachment due to investments that would be lost if one detaches (Becker, 1960; Rusbult & Farrell, 1983). Continuance commitment represents more of an entrapment than an attachment. Based on London's (1983) theoretical dimension of career identity, career

commitment is not concerned with continuance commitment but rather affective commitment.

However, career identity is insufficient for the multi-dimensional operationalization of career commitment. In addition, a highly committed person must be steadfast and active, not passive. A person committed to a career goal must exhibit determination (cf. Lee, Locke, and Latham, 1990) and stability (Van Maanen & Schein, 1977) accomplished through career planning and through career resilience (London, 1983).

When comparing individuals within a group, London's (1983) theory suggests that there are differences in career commitment because of differences in career resilience, career identity, and career planning. As stated by Raelin (1984), "in every occupation, there are some individuals who are more professional than others" (p. 414). In addition to individual differences within occupational groups, Hall's (1976) career definition emphasizing professional characteristics implies differences between occupational groups. This definition of career suggests that only professionals, such as physicians and lawyers are thought to have careers. Though this definition is overly restrictive, an important idea is presented. That is, those involved in a long socialization process during their training are more likely to identify with their careers than those engaged

in little or no training and socialization (Hall, 1968). Thus, there should be variation in career commitment across occupational groups.

In summary, those most committed to their careers should exhibit stability in their field (career resilience) and be identified with and involved in their vocation (career identity), and exhibit determination (career planning). In addition to variance within occupational groups, it is expected that higher career commitment should be displayed by groups higher in professional characteristics (greater socialization) than those lower in professional characteristics.

Nomological Network

Several linkages between the new career commitment measure, and relevant variables in a nomological network can be predicted as well as linkages of variables with organizational commitment and job involvement (see Table 2.2). Years of education should be positively related to career commitment (Colarelli & Bishop, 1990; Frese, 1982), negatively correlated with organizational commitment (Angle & Perry, 1981; Morris & Sherman, 1981; Steers, 1977), and unrelated to job involvement (Rabinowitz & Hall, 1977). Also, women are expected to exhibit more organizational commitment than men (Angle & Perry, 1981; Grusky, 1966; Hrebiniak & Alutto, 1972), but no

correlation is expected between gender and career commitment (Colarelli & Bishop, 1990; Parasuaman & Nachman, 1987) and between gender and job involvement (Rabinowitz & Hall, 1977). Age should be positively correlated with both career commitment (Colarelli & Bishop, 1990; Gottfredson, 1977) and affective commitment to an organization (Mowday et al., 1982) though the correlation should be stronger with organizational commitment than career commitment (Parasuraman & Nachman, 1987). Age should also be related to job involvement (Rabinowitz & Hall, 1977).

Further, organizational tenure should be positively related to affective organizational commitment (Angle & Perry, 1981; Colarelli & Bishop, 1990; Morris & Sherman, 1981; Sheldon, 1971) while tenure in vocation should be positively correlated with career commitment and job involvement (Blau, 1985). Finally, career withdrawal cognitions should be negatively correlated with career commitment (Blau, 1985), while job withdrawal cognitions should be negatively correlated with organizational commitment (Mowday et al., 1982) and job involvement (Blau, 1985).

Table 2.2
Correlations in the Nomological Network

	<u>Career Commitment</u>	<u>Organization Commitment</u>	<u>Job Involvement</u>
Education	positive	negative	unrelated
Female	unrelated	positive	unrelated
Age	positive	positive	positive
Org. tenure	unrelated	positive	unrelated
Vocation tenure	positive	unrelated	positive
Career withdraw cognitions	negative	unrelated	unrelated
Job withdrawal cognitions	unrelated	negative	negative

Research Plan

London's (1983) theory of career motivation can be used as a theoretical foundation for developing and applying a new commitment measure. His list of career decisions and behaviors serves as a source of items for the theoretical dimensions of career identity, career planning, and career resilience. Also, with meticulous attention to the definitions of the three theoretical dimensions, items can be adapted from existing work commitment measures (cf. Gordon, Philpot, Burt, Thompson, & Spiller, 1980).

The terms used in the construction of these items have to be restrictive enough to avoid redundancy with other concepts. Because of the ambiguity of the word "career" (Driver, 1977), its isolated use should be avoided. The word "profession" should also be avoided because it describes only a limited number of workers (Morrow & Wirth, 1989). Words such as "line of work/career field" would thus seem preferred because they fall within the career commitment domain, yet are not overly restrictive.

CHAPTER THREE

Methodology

To facilitate the advancement of career commitment research, it is necessary that a measure be established that is both reliable and valid. Chapter Three describes research methods used for developing a new career commitment measure. The recommended development and testing of a multi-item measure occurs in three major phases (cf. Scarpello & Vandenberg, 1987) involving a number of steps within each phase (Churchill, 1979). Phase 1 includes item generation, evaluation of content validity, and scale construction. In Phase 2, two sequential pilot studies are conducted to assess individual items and establish the new measure's reliability. Phase 3 involves a field test for estimating the construct validity of a new measure.

Item Generation and Content Validity (Phase 1)

Content validity involves both specifying a focal domain and developing items associated with that domain (Cronbach & Meehl, 1955; Zeller & Carmines, 1980). This type of validity is established by demonstrating that

proposed items tap a domain of interest (Cronbach & Meehl, 1955). Unfortunately, there are no agreed upon criteria for assessing content validity (Carmines & Zeller, 1979). Content validity is essentially a judgment call (Nunnally, 1978). The most common way to make this judgment call is to have informed judges assess whether items are representative of the domain being investigated (Green, Tull, & Albaum, 1988). This method was followed with the present measure.

Since the domain of interest, career commitment, needs to be clearly delineated (Cronbach & Meehl, 1955; Zeller & Carmines, 1980), careful attention was directed at defining the three theoretical dimensions identified by London (1983). Following this, numerous items were generated that tap these dimensions.

London (1983) provides a list of career decisions and behaviors associated with career motivation. This list served as the primary source for the generation of individual items. A second source for items was other work commitment instruments. Rather than merely borrowing items without theoretical justification, items from these scales were altered in order to tap London's (1983) three dimensions (cf. Gordon et al., 1980).

Four independent judges with post-masters degree training in management were asked to evaluate these items. Two of these judges classified the generated items into

London's (1983) three theoretical dimensions of career commitment. Two other judges with similar qualifications were asked to label and define each dimension based on sample items. They were then asked to sort the remaining items into three theoretical dimensions. Items were deleted if the judges disagreed about the appropriate classification.

A five-point scale was used to gauge subject responses. Though there is controversy about the appropriate response range for subjects (e.g., Russell, Pinto, & Bobko, 1990), most researchers suggest that neither the reliability nor the predictive and concurrent validities of a scale are likely to be affected (Bendig, 1954; Komorita, 1963; Matell & Jacoby, 1971, 1972). As the number of anchor points increases, however, the percentage of overlap in adjacent judgments increases. With fewer anchor points, there is less overlap between the distribution of adjacent points. Since five-point scales do not exhibit a great deal of overlap (Bass, Cascio, & O'Connor, 1974), they were used in this research.

A format of "strongly disagree", "disagree", "neither agree or disagree", "agree", and "strongly agree" anchored the five-point scale. This relatively simple format was chosen because it has been shown to be approximately equal-interval (Lemon, 1973).

In addition to the individual item format, sequencing of items was considered (Green et al., 1988). To avoid problems with the order of presentation, items were randomly distributed (cf. Chao & Kozlowski, 1986; Gordon et al., 1980). Also, since direction-of-wording can affect responses (Campbell, Siegman, & Rees, 1967), the focal measure consisted of both negatively and positively worded items (14 negative; 22 positive). Finally, the overall physical design of the survey in which the measure was presented was considered. The surveys were short and self-explanatory. A brief introduction and simple instructions for the respondents were included (Sheatsley, 1983).

Pretests and Reliability Assessment (Phase 2)

Peterson (1982) suggests that 60 respondents "are ideal for a pilot study or pretest if a large scale research project is to be conducted" (p. 399). Similarly, Hair et al. (1987) indicate that at least 50 observations, and preferably 100 or more, are needed for conducting principal component analysis, a statistical method to be used in the development of the new measure. However, as a general rule, Hair et al. (1987) suggest that the observation to variable ratio should be 4 or 5 to 1. Another rule of thumb is that there should be 5 to 10

times as many respondents as items (Nunnally, 1978). From this, it appears that there is no absolute rule for the number of respondents in developing an instrument. As a guideline for each of the two pretests, it seemed prudent that there should be at least 100 respondents (Hair et al., 1987) or 5 respondents per item (Nunnally, 1978), whichever was larger.

Since the pretests are being conducted to establish reliable items with sufficient variance, the sample should include employees with varying degrees of career commitment. The first pretest was conducted with currently enrolled students at three southeastern university campuses and with employees from a variety of occupational settings. The respondents selected for the study were required to be employed at least 8 hours per week, because Wakefield, Curry, Mueller, and Price (1987) report work outcomes for employees who work eight hours do not vary significantly from employees who work 9-23 hours per week. The second pretest was conducted with currently enrolled students, employees who are part-time MBA students, and employees who represent distinct occupational groups. These respondents were required to work at least 16 hours per week. Sixteen hours per week is a cutoff used by other researchers (e.g., Hom, 1979; Wakefield et al., 1987) and is more a more rigorous criterion than the eight hour cutoff.

The major objective of the two pretests was to develop a reliable measure. Measures need to be reliable because this "dependability" (Cronbach, 1951, p. 297) establishes an upper bound on validity (Green et al., 1988). For multi-item scales, internal consistency is computed because it conveys "substantial information about the reliability of a scale" (Carmines & Zeller, 1979, p. 51). Items lowering internal consistency can be identified in both pretests, and can thus be deleted. However, an exact standard for the level of reliability has not been established. Nunnally (1978) suggests as a guideline that reliabilities should be above .70 in early stages of research. For more widely used scales, .80 or higher may be desirable (Carmines & Zeller, 1979).

Items can also be deleted if they suffer from range restriction (Hunter & Schmidt, 1990). Significant construct effects may be hidden if respondents use a scale's middle values. This attenuating effect is avoided when respondents use a scale's extremes (Crocker & Algina, 1986). Thus, an examination of frequency distributions was undertaken to determine if individual items should be retained (cf. Chao & Kozlowski, 1986). If all five anchors were not used for an item, it was deleted.

To test empirically the three theoretical dimensions of career commitment, principal component analysis was

conducted. Component analysis considers total variance (common, specific, and error) in determining the minimum number of factors that account for the maximum amount of variance in an original data set (Hair et al., 1987). Two primary stopping rules were used for deciding on the number of component factors to extract. These stopping rules are Kaiser's (1960) eigenvalue-greater-than-1.0 rule and Cattell's (1966) scree test.

The eigenvalue-greater-than-1.0 rule is the most popular technique among researchers (Hair et al., 1987; Hubbard & Allen, 1987; Zwick, 1986). It is based on the idea that an eigenvalue-greater-than-1.0 provides a measure of data summarization. However, this method consistently overestimates the number of factors in a data set (Hubbard & Allen, 1987; Zwick & Velicer, 1986). The scree test, based on a graph of eigenvalues, is usually slightly more accurate than Kaiser's (1960) rule in determining the number of component factors to extract (Zwick & Velicer, 1986), though problems can occur when there are complications in interpreting a data set's "break point" (Cattell, 1966; Zwick & Velicer, 1986).

Because both stopping rules have weaknesses, the percentage of explained variance is considered in determining the number of factors to be extracted (Hair et al., 1987). To aid in interpreting extracted factors, a varimax rotational method approach was used to achieve a

simple, more meaningful principal component solution (Dielman, Cattell, & Wagner, 1972; Stewart, 1981). After rotation, factor loadings were examined. Those items loading sufficiently high on the rotated component factors (.40 or above) were retained for further measure development (Hair et al., 1987).

In addition to the career commitment items, Crowne and Marlowe's (1964) 33-item measure of social desirability (defined as the need of the respondent to obtain approval by answering in a socially acceptable manner; Kuder-Richardson reliability coefficient = .74) was administered to the respondents in the first pretest. Previous researchers have found this scale to be reliable (e.g., Arnold, Feldman, & Purbhoo, 1985; Ganster, Hennessey, & Luthans, 1983). Sample items include, "I like to gossip at times" and "I almost never felt the urge to tell someone off" (Crowne & Marlowe, 1960). Items that tap respondents' need to answer in a socially desirable manner result in a response bias (DeMaio, 1984). Therefore, individual items meaningfully correlated with the Crown and Marlowe's (1964) measure were eliminated.

At the conclusion of the second phase, there was an equal number of items that tapped each theoretical dimension. To encourage use in research settings and to avoid subject fatigue (Anastasi, 1976; Herzog & Bachman, 1981), it was important that the new measure be as short

as possible while retaining appropriate levels of validity and reliability (cf. Hinkin, 1985).

Field Test and Construct Validity (Phase 3)

As previously described, construct validity was of primary importance in the third phase of the dissertation. Construct validity consists of three subtypes: (a) convergent validity, (b) discriminant validity, and (c) nomological validity (Campbell & Fiske, 1959; Green et al., 1988). With convergent validity, the correspondence among the new and previously published career commitment measures were assessed. With discriminant validity, independent measures should be designed to assess different constructs (Campbell & Fiske, 1959). Thus, career commitment should not be too highly correlated with other work commitments (cf. Morrow & McElroy, 1988). With nomological validity, a researcher is concerned with testing the linkages between a measure and theoretically appropriate variables (Green et al., 1988; Schwab, 1980).

In addition to construct validity, external validity of the new career commitment measure was important. The new career commitment measure should display adequate variance across occupational groups. Those groups higher in professional characteristics should generally exhibit higher career commitment than those groups lower in

professional characteristics (Blau, 1985). As stated, there should be a lower professional boundary beyond which workers do not distinguish commitment to careers from commitment to jobs and organizations (Blau, 1988, 1989).

Sample

The final sample consisted of occupationally diverse employees. Within this sample, there were at least four occupational groups exhibiting various levels of professional characteristics. Criteria used to differentiate between high and low levels of a group's professional characteristics were technical training, advanced education, formal testing and control of admission, professional associations, codes of conduct, and sense of calling (Benveniste, 1987). Most respondents included in the final sample were full-time employees (Wakefield et al., 1987), working at least 35 hours per week (Feldman, 1990).

It was important that the total sample size be large enough to avoid the incorrect conclusion of no significant differences (i.e., Type II errors; Cook & Campbell, 1979). Cohen (1977) offers guidelines for establishing appropriate sample sizes. He suggests that in order to determine an appropriate number of subjects, researchers must consider: (a) the level of significance desired (Type I error), (b) the amount of power desired, and (c) the

anticipated effect size. When using the conventional level of significance of .05, Cohen (1977) recommends that behavioral scientists use .80 for a power value. With this conventional level, Type I errors are seen as four times as serious as Type II errors (.20/.05).

The effect size used in the dissertation was based on the pattern of correlations between career commitment and other variables. Colarelli and Bishop (1990) reported that the correlation between career commitment and age was .25 and the correlation between career and education was .23. Based on these correlations, the desired effect size was set at .20. With an expected effect size of .20, a significance level of .05, and a power value of .80, a sample size of 153 is recommended (Cohen, 1977). This sample size was considered the minimum number of respondents acceptable in the final sample.

Measures

Several measures were used to assess convergent, discriminant, and nomological validities.

1. To assess convergent validity, **career commitment (attitudinal)** was measured using three instruments: (a) Blau's (1985) career commitment measure (alpha coefficient = .87), (b) the OCQ adapted for career commitment (alpha coefficient = .84; cf. Colarelli & Bishop, 1990), and (c) the new career commitment measure (alpha coefficient =

.81). Blau's (1985) measure consists of seven items on a five-point scale ranging from "strongly disagree" to "strongly agree." The short version of the adapted OCQ consists of nine items (Mowday, Steers, & Porter, 1979). Aspects of the adapted measure, if parallel to the OCQ, include career identification, willingness to exert extra effort for the career, and desire to retain career membership (cf. Aranya, Kushnir, & Valency, 1986; Morrow & Wirth, 1989). Items in this measure are on a seven-point scale ranging from "strongly disagree" to "strongly agree". To correspond with the Blau (1985) measure, the seven-point scales used by Colarelli and Bishop (1990) were changed to five-point scales. (Subsequent measures using seven-point anchors were also be converted to five-point anchors.)

2. To assist in the establishment of discriminant validity, a **career entrapment** measure was also developed in this study (alpha coefficient = .84). This instrument is theoretically distinct from attitudinal career commitment measures. Inclusion of this measure is based on Becker's (1960) "side-bet" theory. Becker (1960) suggests that individuals continue in a consistent line of activity because of accumulated investments or sunk costs. Individuals who change careers may lose educational investments, career-specific skills, etc. Further, the lack of available alternatives may commit persons to

continuing in their career.

Development of the career entrapment measure followed a procedure similar to the development of the career commitment measure. Numerous items were initially generated for the three theoretical dimensions of career entrapment defined as: (a) emotional cost, affective trauma connected with leaving one's career; (b) lack of career opportunities, few alternatives in choosing another career; and (c) career investments, sacrifices associated with leaving one's career. Items were also adapted from Meyer and Allen's (1984) organizational continuance commitment measure with the words "line of work/career field" substituted for "organization."

In addition to the career entrapment measure, a five-item unidimensional measure of **career satisfaction** was developed (alpha coefficient = .79). Several career satisfaction items adapted from Brayfield and Rothe's (1951) job satisfaction questionnaire were pretested with 88 undergraduate students at Louisiana State University and Louisiana State University at Alexandria. Five of the items loaded cleanly on the first factor. These items read, "My line of work/career field is usually interesting enough to keep me from getting bored." "I feel fairly satisfied with my present line of work/career field." "My line of work/career field is pretty uninteresting." "I am often bored with my line of work/career field." "I find

real enjoyment in my line of work/career field."

This development was necessary because there is no established instrument for tapping career satisfaction. For example, in recent articles in the Academy of Management Journal, Schneer and Reitman (1990) did not provide any information about their career satisfaction measure; Romzek (1989) merely used a correlation of two items; and Greenhaus, Parasuaman, and Wormley's (1990) five-item career satisfaction measure dealing with career progress satisfaction was developed, in the authors' words, "expressly for this study" (p. 73).

Affective organizational commitment was also be used to examine discriminant validity (alpha coefficient = .89). This measure, developed by Meyer and Allen (1984), contains eight items and uses a "strongly disagree" to "strongly agree" format. This affective commitment measure assesses identification and involvement with an organization. McGee and Ford (1985) examined its psychometric properties. They found the measure reliable and also found support for construct validity. The **organizational continuance commitment** measure (Meyer & Allen, 1984) is conceptually different from organizational affective commitment (McGee & Ford, 1987), and therefore was used to help establish discriminant validity (alpha coefficient = .80).

The third measure used to assess discriminant

validity was **job involvement**, defined as one's daily absorption with one's work (alpha coefficient = .87; Kanungo, 1982; Lodahl & Kejner, 1965; Rabinowitz & Hall, 1977). Job involvement was tapped using a measure developed by Kanungo (1982). Though based on an instrument by Lodahl and Kejner (1965), Kanungo's (1982) measure is more reliable and is a more valid operationalization (Blau, 1985). However, the item measuring detachment from job is unreliable and was deleted from the measure (Blau, 1985; Paterson & O'Driscoll, 1990). The remaining nine items are on 5-point scale, with responses ranging from "strongly disagree" to "strongly agree".

3. To establish nomological validity, two measures of withdrawal cognitions were assessed. **Job withdrawal cognitions** is a 3-item measure that can be linearly summed (alpha coefficient = .79; Michaels & Spector, 1982). This measure gauges the individual's thoughts of quitting the present job, intention to search for another job, and intentions to quit the present job. **Career withdrawal cognitions** is a 3-item measure parallel to the job withdrawal cognitions scale with the word "line of work/career field" replacing "organization" (alpha coefficient = .82; Blau, 1989; Michaels & Spector, 1982).

In addition to these two measures, several demographic variables were collected for establishing

nomological validity. These included **organizational tenure, tenure in vocation, positional tenure, tenure with supervisor, age, gender, marital status, kinship responsibility** (Blegen, Mueller, & Price, 1988) and **years of education**.

Analysis

A complete (triangular) disclosure matrix is used to report the relationships among the previously defined variables. This matrix can be examined to assess the convergent validity of the three measures of career commitment. One would expect high positive correlations among the career commitment measures. However, given the differences in theoretical development, the correlations should be less than perfect. Schwab (1980) indicates that convergent validity is overemphasized by researchers. More important is the assessment of discriminant validity.

The multitrait-multimethod matrix approach can be used to evaluate discriminant validity through analyses of correlation patterns (Campbell & Fiske, 1959). However, this approach has several problems. First, violations of the underlying assumptions of minimal correlations between methods and between methods and traits can result in erroneous conclusions. Second, Campbell and Fiske (1959) provide no direction if these assumptions are unmet. Finally, this approach does not provide a statistical test

for assessing the level of discriminant validity (Farh, Hoffman, & Hegarty, 1984). Because of these limitations, confirmatory factor analysis is preferable (Farh, et al., 1984; Schmitt & Stults, 1986).

The maximum likelihood method of LISREL VI (Jöreskog & Sörbom, 1984) was used to assess discriminant validity (Herting, 1985). Latent variables, or hypothetical constructs, cannot be directly observed. Rather, there are observed indicators that measure the latent variable. By using several indicators, the measurement of a latent variable is improved. However, even when measures are reliable, it is possible to have errors of measurement (Jöreskog, 1982). The LISREL technique allows for the construction of models that incorporate and correct for measurement error. This is fundamental to estimating parameters and assessing a given model's fit (Herting, 1985; Jöreskog, 1982).

One goodness-of-fit index is the chi-squared (χ^2) value which compares a predicted covariance matrix to an observed covariance matrix. If this value is significant, the difference between the two matrices is assumed to be substantial, thus implying that a model does not adequately fit its underlying data. However, the chi-squared statistic is sensitive to sample size (Loehlin, 1987). When sample size is too large, the chi-square statistic is significant even when a model represents a

good model fit (Bentler & Bonett, 1980; Jöreskog & Sorbom, 1984). Because of this sensitivity, other indices must also be evaluated.

Over thirty fit indices have been reported and examined (Marsh, Balla, & McDonald, 1988), and new ones are being developed continually (Bentler, 1990; Bollen, 1990). Six of the more common alternative indices were used in this research. First, the Normed Fit Index (NFI) compares a specified model with the structural null in which no parameters are estimated. Bentler and Bonett (1980) indicate that the NFI minimum critical value of .90 represents an adequate fit. In addition to the NFI, Jöreskog and Sorbom's (1984) χ^2/df standardizes the chi-squared statistic to eliminate confounding due to sample size. The χ^2/df should be between 1 and 2. Since indices can be artificially inflated by merely freeing up parameters, the parsimonious normed-fit index (PNFI) may also be reported. The PNFI adjusts the NFI for loss of degrees of freedom by multiplying the NFI by the ratio of the model's degrees of freedom divided by the null model's degrees of freedom (Mulaik, James, VanAlstine, Bennett, Lind, & Stilwell, 1989).

The Goodness-of-Fit Index (GFI) and the Adjusted Goodness-of-Fit Index (AGFI) can be used to assess the adequacy of a model. The GFI (the ratio of the sum of squared discrepancies between the implied and observed

correlation matrices) indicates the amount of unexplained variance in the model. The AGFI adjusts the GFI by a ratio of the degrees of freedom of the restricted to the null matrix. The GFI and AGFI are optimal when their values reach 1.0 (James, Mulaik, & Brett, 1982). Finally, the Tucker-Lewis index (Tucker & Lewis, 1973), also optimal when its value reaches 1.0, was found to be relatively independent of sample size (Marsh et al., 1988; McDonald & Marsh, 1990).

Establishing discriminant validity involves analyzing the multidimensional career commitment measure with other work commitment measures. One approach, using confirmatory factor analysis, compares two models (Schmitt & Stults, 1986; Widaman, 1985; Williams, Cote, & Buckley, 1989). The first model is based on a prediction that all items for various measures represent a single factor underlying the attitudinal constructs. The second model is based on a prediction that the items represent their respective theoretical dimensions. The null hypothesis is rejected if there is a difference between the fit of the single-factor model and the multiple-factor model (Brooke et al., 1988; Mathieu & Farr, 1991). Researchers determine the adequacy of the models by examining goodness-of-fit indices.

After comparing the one-factor and multiple-factor models, a second set of analyses can be conducted to

determine nomological validity. This involves analyzing relationships among work commitments (career commitment, organizational commitment, and job involvement) and job-related variables (e.g., career withdrawal intentions; Brooke et al., 1988; Mathieu & Farr, 1991). Pairwise comparisons are made between the work commitments and job-related variables testing the a null hypothesis that the correlations are the same. The null hypotheses are rejected if different predicted patterns are found (cf. Brooke, et al., 1988).

Analysis of covariance (ANCOVA) and multivariate analysis of variance (MANCOVA) were used to assess external validity. The ANCOVA, rather than the ANOVA, procedure was selected because ANCOVA can control for extraneous variables across occupational groups. Thus, the new career commitment measure, Blau's (1985) measure, and the adapted OCQ measure can compete directly against one another to determine if the measures can significantly tap varying career commitment levels across different occupational groups.

MANCOVA was selected to assess external validity because this technique controls for Type I error by using a linear combination of dependent variables to provide a single overall test of group differences (Hair et al., 1987; Stevens, 1986). When MANCOVA is significant, a post hoc test can be applied for interpretative purposes. This

multivariate procedure determines which work commitments measures display adequate variance across occupationally distinct groups.

In this case, discriminant analysis was the post hoc procedure conducted to assess the contribution of each variable in discriminating among the groups. Discriminant analysis is the method of choice when dependent variables are intercorrelated (Borgen & Seling, 1978). The contribution of each variable is determined by examining the discriminant loading for each significant function (Cooley & Lohnes, 1971; Hair et al., 1987).

CHAPTER 4

Results of Measure Development

The current chapter begins by discussing item generation and content validity of the new career commitment measure. Details of two pilot studies involving principal component analysis and reliability assessment are described. Finally, a field test of the measure and evidence of construct validity are presented.

Phase 1: Item Generation and Content Validity

As previously discussed, the purpose of the present dissertation was to develop a theoretically based career commitment measure. Past career commitment measures have been redundant with other types of commitment (e.g., Greenhaus, 1973) or have been narrowly defined as professionalism (e.g., Hall, 1969). Blau's (1985) measure used "vocation" as a referent which more accurately represents the career commitment focus. His measure, however, was not theoretically based. Therefore, London's (1983) three-dimensional theory of career motivation was used in this study as a basis for developing a new career

commitment measure. As previously outlined, this measure incorporates three theoretical dimensions: (a) career identification, a close emotional association with one's career; (b) career planning, determining one's developmental needs and establishing a career plan; and (c) career resilience, resisting career disruption in the face of adversity (cf. Lydon & Zanna, 1990).

To assist in establishing discriminant validity of the new career commitment measure, a career entrapment measure was also developed in the current dissertation. Inclusion of this measure was based on Becker's (1960) "side bet" theory suggesting that individuals continue in a consistent line of activity because of personal investments. In addition, lack of alternatives may entrap individuals in their careers (cf. Meyer & Allen, 1984). Based on this underlying theory, items were generated for three dimensions of career entrapment: (a) career investments, sacrifices associated with leaving one's career; (b) lack of career opportunities, few alternatives in choosing another career; and (c) emotional cost, affective trauma associated with leaving one's career (cf. McGee & Ford, 1987).

Eighty-seven items were generated as a basis for the new career commitment measure and 84 items were generated as a basis for the career entrapment measure. Consistent with the tripartite model of attitude structure (Breckler,

1984), affective, behavioral, and cognitively based items were developed. However, behavioral items were not generated for career entrapment because of their construct overlap with Michaels and Spector's (1982) intent-to-stay measure as described in Chapter 3.

Two sets of judges evaluated these items. Initially two judges, first-year Ph.D. students in management, sorted items into the three dimensions of career commitment as well as the three dimensions of career entrapment. Next two judges, more experienced Ph.D. students specializing in organizational behavior/organizational psychology, were asked to define the theoretical dimensions based on the three sample items for each of the three dimensions of career commitment (career identification, career planning, and career resilience) and for each of the three dimensions of career entrapment (career investments, lack of career opportunities, and emotional cost). After correctly identifying the three dimensions of career commitment and the three dimensions of career entrapment, the judges sorted the remaining items into their appropriate dimension. Finally, the judges were asked to determine if the items were affective, cognitive, or behavioral. A total of 36 career commitment items and 24 career entrapment items were selected on the basis of correct classification by both sets of judges.

Table 4.1
Items Selected for Pilot Study

I. CAREER COMMITMENT

A. Identification Dimension

Identification Cognitive (IC6) - I strongly identify with my chosen line of work/career field.

Identification Affective (IA11) - This line of work/career field has a great deal of personal meaning to me.

Identification Cognitive (IC14) - My line of work/career field is an important part of who I am.

Identification Behavioral (IB16) - When I initially meet others, I usually don't tell them my line of work/career field. (Reverse)

Identification Affective (IA18) - I get a sense of pride from my line of work/career field.

Identification Behavioral (IB22) - In social settings, I rarely discuss my line of work/career field. (Reverse)

Identification Cognitive (IC23) Sometimes I wish I had chosen a different line of work/ career field. (Reverse)

Identification Affective (IA26) - I do not feel "emotionally attached" to this line of work/career field. (Reverse)

Identification Cognitive (IC27) - I believe that the line of work/career field I chose is the right one for me.

Identification Behavioral (IB32) - I often discuss my line of work/career field with people outside of it.

Identification Affective (IA36) - I do not feel a strong sense of belonging in this line of work/career field. (Reverse)

Identification Behavioral (IB37) I frequently tell people about how great my line of work/career field is.

Table 4.1 (continued)

B. Planning Dimension

Planning Affective (PA7) - I feel that it is useful to spend time planning for my future development in this line of work/career field.

Planning Behavioral (PB9) - I readily learn new techniques and procedures associated with my line of work/career field.

Planning Cognitive (PC13) - I do not have a strategy for achieving my goals in this line of work/career field.
(Reverse)

Planning Behavioral (PB19) - I am constantly trying to improve the skills I need for success in my line of work/career field.

Planning Cognitive (PC20) - I know what I need to do to reach my goals in this line of work/career field.

Planning Behavioral (PB24) - I do not identify specific goals for my development in this line of work/career field. (Reverse)

Planning Affective (PA25) - I do not enjoy planning for personal development in my line of work/career field.
(Reverse)

Planning Affective (PA28) - I feel that the importance of planning for my line of work/career field cannot be overemphasized.

Planning Behavioral (PB29) - I have created a plan for my development in this line of work/career field.

Planning Cognitive (PC33) - I do not often think about personal development in my line of work/career field.
(Reverse)

Planning Cognitive (PC35) - Planning for and succeeding in my line of work/career field is important.

Planning Affective (PA39) - I feel irresponsible if I do not keep up with the developments in my line of work/career field.

Table 4.1 (continued)

C. Resilience Dimension

Resilience Behavioral (RB5) - Because of the problems in this line of work/career field, I now exert less effort than I once did. (Reverse)

Resilience Cognitive (RC8) - The benefits of this line of work/career field outweigh its costs.

Resilience Affective (RA10) - The discomforts associated with my line of work/career field sometimes seem too great. (Reverse)

Resilience Affective (RA12) - Given the problems in this line of work/career field, I sometimes wonder if the personal burden is worth it. (Reverse)

Resilience Behavioral (RB15) - Though my line of work/career field has its difficulties, I continue to try hard.

Resilience Cognitive (RC17) - Given the problems I encounter in this line of work/career field, I sometimes wonder if I get enough out of it. (Reverse)

Resilience Cognitive (RC21) - Despite its problems, I believe that I chose the right line of work/career field.

Resilience Cognitive (RC30) - The costs associated with my line of work/career field sometimes seem too great. (Reverse)

Resilience Behavioral (RB31) - Because of difficulties in my line of work/career field, I no longer try as hard as I once did. (Reverse)

Resilience Affective (RA34) - My line of work/career field has its ups and downs, but overall I feel that its benefits outweigh its costs.

Resilience Behavioral (RB38) - I will continue to work hard in my line of work/career field despite its problem areas.

Resilience Affective (RA40) - Problems encountered in my line of work/career field sometimes serve to strengthen my dedication.

Table 4.1 (continued)

II. CAREER ENTRAPMENT

A. Emotional Cost Dimension

Emotional (E42) - Changing my line of work/career field would be easy from an emotional standpoint. (Reverse)

Emotional (E43) - Leaving my line of work/career field would cause little emotional trauma in my life. (Reverse)

Emotional (E48) - Changing my line of work/career field would require little personal sacrifice. (Reverse)

Emotional (E53) - A line of work/career field change would require an emotional cost that I am not willing to make.

Emotional (E54) - Changing my line of work/career field would be disruptive to people close to me.

Emotional (E55) - It is frustrating to me that this is the only line of work/career field that is right for my abilities.

Emotional (E56) - It would be emotionally difficult to change my line of work/career field.

Emotional (E60) - There would be a great emotional price involved in changing my line of work/career field.

B. Investment Dimension

Investment (V45) - Leaving my current line of work/career field would cause few disruptions in my life. (Reverse)

Investment (V50) - Since I have very little invested in my line of work/career field, I could easily make a change. (Reverse)

Investment (V51) - If I left my present line of work/career field, I would experience a substantial financial loss.

Investment (V57) - It would be very costly for me to switch my line of work/career field.

Investment (V58) - I would enjoy changing my line of work/career field since I have so little invested. (Reverse)

Table 4.1 (continued)

Investment (V61) - For me to enter another line of work/career field would mean giving up a substantial investment in training.

Investment (V63) - I have too much time invested in my line of work/career field to change.

Investment (V64) - I have too much money invested in my line of work/career field to change at this time.

C. Lack of Opportunities Dimension

Opportunities (041) - If I left this line of work/career field, I would feel like I had no reasonable options.

Opportunities (044) - I am pleased that I have many alternatives available for changing my line of work/career field. (Reverse)

Opportunities (046) - I would need little educational retraining to enter into another line of work/career field comparable to this one. (Reverse)

Opportunities (047) - I would have many options if I decided to change my line of work/career field. (Reverse)

Opportunities (049) - I believe that it would be difficult to find a satisfactory alternative line of work/career field.

Opportunities (052) - The only reason I stay in this line of work/career field is because there are few alternatives that are better.

Opportunities (059) - Given my experience and background, there are attractive alternatives available to me in other lines of work/career fields. (Reverse)

Opportunities (062) - I could easily switch my line of work/career field. (Reverse)

Phase 2: First Pilot Study

In Phase 2, an initial pilot study was conducted to assess the 36 career commitment items and to establish reliability. The 24 career entrapment items were also examined at that time.

Survey Administration

Surveys were administered to 35 MBA students at Louisiana State University and Southeastern Louisiana University. Also surveyed were 252 undergraduate students at Louisiana State University, Southeastern Louisiana State University, and Louisiana State University at Alexandria who worked eight or more hours per week. Respondents were required to work a minimum of eight hours per week because employees who work at least eight hours report work outcomes similar to employees who work 9 to 23 hours (Wakefield et al., 1987). Approximately 11.7% of the surveyed MBA students were employed on a full-time basis (35 hours or more per week; Feldman, 1990) as compared to 20.3% of the undergraduate students. To extend the generalizability of the sample, 17 employees from a variety of settings were surveyed on a convenience basis by student volunteers from Louisiana State University at Alexandria. The final sample included 304 respondents. The average number of hours worked per week

was 25.4. Table 4.2 shows occupational classification by hours/week.

Table 4.2
Occupation by Hours/Week

	08-15	16-23	24-34	35+	Missing	Row Total
Profession/Tech/ Recreation/Kindred	08	17	11	12	00	48 15.8%
Manager/Supervisor except Farm	01	10	09	26	00	46 15.1%
Sales Workers	05	12	14	04	02	37 12.7%
Clerical/ Kindred	15	24	18	15	01	73 24.0%
Student Workers	18	14	02	02	00	36 11.8%
Craftsmen/ Kindred	01	03	00	04	00	08 02.6%
Operatives except Transport	01	02	01	01	00	05 01.6%
Laborers except Farm	00	01	03	02	00	06 02.0%
Farmers/ Farm Managers	00	00	00	01	00	01 00.3%
Service Workers	13	09	11	05	00	38 12.9%
Missing	01	02	00	00	03	06 02.0%
Column Total	63 20.7%	94 30.9%	69 22.7%	72 23.7%	06 02.0%	304 100%

Survey for First Pilot Study

The following prefatory instructions introduced the survey for the first pilot study: "This questionnaire includes statements about your line of work or career field in which you are currently employed. You may consider line of work/career field as having the same meaning as occupation, profession, or vocation. All responses are treated confidentially. In no instance will an individual be identified as having provided a particular response."

A five-point scale was used to measure career commitment and career commitment responses (1 = strongly agree to 5 = strongly disagree). The accompanying instructions were, "For each statement below, decide which response best indicates your attitude or position - how much you agree or disagree with the statement. Place the number of the response on the line at the left." In addition, a true and false scale was used for the 33 items tapping social desirability (Crowne & Marlowe, 1960). The survey ended with two fill-in-the-blanks. "I am currently employed in my line of work/career field approximately _____ hours per week" and "The title of my position is _____." See Appendix A for the instrument used in the initial pilot study.

Principal Component Analysis

The 36 items of career commitment were examined using principal component analysis with a varimax rotation. With the eigenvalue-greater-than-1.0 stopping rule, six factors were identified. Eigenvalues for the six factors were 14.43, 2.74, 1.65, 1.43, 1.15, and 1.02. Percentage of variance explained by each factor was 40.1%, 7.6%, 4.6%, 4.0%, 3.2%, and 2.9%, respectively. Based on the size of eigenvalues, percentage of variance explained, and a scree plot, four factors were ultimately extracted.

Based on item loadings, the first factor was identified as the career identification dimension, the second as the career planning dimension, the third as the career resilience dimension. Thus, the first three factors of principal component analysis indicated support for London's (1983) three dimensional model. Based on item loadings, the fourth factor was interpreted as representing career effort (see Table 4.3).

Seven items loaded on the career identification dimension. Because of one split loading, six items were retained. These were Identification Cognitive (IC6) .69, Identification Affective (IA11) .72, Identification Cognitive (IC14) .69, Identification Affective (IA26) .71, Identification (IA36) .70, and Identification Behavioral (IB37) .54.

Two affective career planning dimension items were

split with the identification factor (e.g., PA7 & PA25). Thus, items retained were Planning Behavior (PB9) .55, Planning Cognitive (PC13) .64, Planning Behavioral (PB24) .66, Planning Behavioral (PB29) .67, Planning Cognitive (PB33) .64. Items retained for the career resilience dimension were Resilience Cognitive (RC8) .52, Resilience Affective (RA10) .74, Resilience Affective (RA12) .74, Resilience Cognitive (RC17) .66, and Resilience Cognitive (RC30) .79. Four items defined the fourth dimension, career effort. These were (PB19) .55, (PA39) .66, (PB15) .73, and (RB38) .64.

Table 4.3
Factor Analysis of Career Commitment

Factor Analysis - Career Commitment

Factor	Eigenvalue	Pct of Variance
1	14.43	40.1%
2	2.74	7.6%
3	1.66	4.6%
4	1.43	4.0%

Table 4.3 (continued)

Variable	Varimax Rotation			
	Factor 1	Factor 2	Factor 3	Factor 4
IC6	<u>.69</u>	.38	.09	.14
IA11	<u>.72</u>	.31	.12	.16
IC14	<u>.69</u>	.36	.07	.24
IB16	.06	.24	.23	.14
IA18	.54	.25	.23	.43
IB22	.20	.14	.21	.15
IC23	.55	.17	.48	-.01
IA26	<u>.71</u>	.24	.10	.16
IC27	<u>.66</u>	.40	.23	.12
IB32	.27	-.03	.09	.16
IA36	<u>.70</u>	.11	.27	.15
IB37	<u>.54</u>	.15	.27	.13
PA7	.49	.59	.04	.21
PB9	.10	<u>.55</u>	.11	.22
PC13	.30	<u>.64</u>	.03	-.05
PB19	.40	.42	.07	<u>.55</u>
PC20	.10	.16	.07	.25
PB24	.35	<u>.66</u>	.10	.19
PA25	.41	.53	.16	.20
PA28	.39	.40	.05	.20
PB29	.41	<u>.67</u>	.10	.19
PC33	.40	<u>.64</u>	.23	.17
PC35	.53	.47	.12	.31
PA39	.17	.20	.02	<u>.66</u>
RB5	-.02	.26	.49	<u>.46</u>
RC8	.40	.24	<u>.52</u>	.15
RA10	.09	-.06	<u>.74</u>	.08
RA12	.17	.05	<u>.74</u>	.05
RB15	.23	.03	.06	<u>.73</u>
RC17	.14	.26	<u>.66</u>	.03
RC21	.68	.26	.34	.16
RC30	.17	.01	<u>.79</u>	.11
RB31	.01	.29	.50	.50
RA34	.45	.14	.50	.18
RB38	.27	.15	.31	<u>.64</u>
RA40	.47	.15	.10	.42

Three factors were extracted for career entrapment (see Table 4.4). Eigenvalues for these factors were 9.64, 2.03, and 1.19. Percent of variance explained was 40.2%, 8.5%, and 5.0% respectively. The first dimension

consisted of items gauging emotional cost. Five higher, stable loadings on this factor were (E42) .70, (E43) .76, (E53) .57, (E56) .68, (E60) .62. The second dimension consisted of five items gauging career investments. The loadings for these items were (V57) .52, (V58) .67, (V61) .65, (V63) .73, and (V64) .76. The last dimension consisted of four items gauging lack of career opportunities. The four loadings were (O41) .49, (O44) .67, (O47) .77, (O59) .76.

Table 4.4
Factor Analysis of Career Entrapment

Factor Analysis - Career Entrapment

Factor	Eigenvalue	Pct of Var
1	9.64	40.2%
2	2.03	8.5%
3	1.19	5.0%

Table 4.4 (continued)

Variable	Varimax Rotation		
	Factor 1	Factor 2	Factor 3
E42	<u>.70</u>	.31	.14
E43	<u>.76</u>	.33	.16
E48	.59	.31	.25
E53	<u>.57</u>	.36	.27
E54	.50	.19	-.05
E55	.10	.12	.30
E56	<u>.68</u>	.35	.14
E60	<u>.62</u>	.35	.09
V45	.70	.23	.27
V50	.53	.60	.16
V51	.14	.34	.16
V56	.68	.35	.14
V57	.36	<u>.52</u>	.18
V58	.40	<u>.67</u>	.17
V61	.24	<u>.65</u>	.08
V63	.27	<u>.73</u>	.23
V64	.20	<u>.76</u>	.12
O41	.19	.29	<u>.49</u>
O44	.21	.26	<u>.67</u>
O46	.41	-.19	.37
O47	.19	.03	<u>.77</u>
O49	.25	.45	.48
O52	-.24	-.08	.36
O59	.05	.17	<u>.76</u>
O62	.36	.52	.41

Frequencies and Reliabilities

Frequency distributions and reliabilities are presented in Table 4.5. Means for the 20 items representing career commitment ranged from 2.06 to 3.22. The standard deviations ranged from .95 to 1.31 with respondents using all anchors on the 5-point scale. The reliability coefficient for the four dimensions were .89, .82, .82, and .78. Variability in responses as well as high reliabilities suggested that restriction of range did

not represent a problem for the career commitment measure.

Means for the 14 items representing career entrapment ranged from 3.00 to 3.95. The standard deviations ranged from 0.96 to 1.25. As with career commitment, all anchors were used by respondents. Reliability coefficient for the three dimensions were .87, .85, and .76. Variability in responses and high reliabilities suggested no restriction in range for the career entrapment measure.

Table 4.5
Frequencies, Means, Standard Deviations, and Reliabilities

I. CAREER COMMITMENT

	Value1	Value2	Value3	Value4	Value5	Mean	sd
<u>Identification Dimension</u>							
Factor							
IC6	62	111	43	63	25	2.60	1.24
IA11	46	101	55	70	32	2.81	1.25
IC14	56	111	36	65	36	2.72	1.31
IA26	33	101	42	70	58	3.06	1.33
IA36	54	118	48	54	30	2.63	1.24
IB37	25	76	63	88	52	3.22	1.23
Reliability coefficient for 6 items = .89							
<u>Planning Dimension</u>							
PB9	82	126	28	50	18	2.33	1.20
PC13	50	114	44	68	27	2.70	1.24
PB24	36	111	51	83	22	2.82	1.17
PB29	31	93	41	98	41	3.08	1.26
PC33	37	131	36	73	27	2.74	1.21
Reliability coefficient for 5 items = .82							
<u>Resilience Dimension</u>							
RC8	48	89	73	64	30	2.80	1.22
RA10	33	121	48	74	28	2.81	1.19
RA12	38	114	49	74	29	2.81	1.21
RC17	21	111	61	82	29	2.96	1.14
RC30	30	123	56	72	23	2.79	1.14
Reliability coefficient for 5 items = .82							

Table 4.5 (continued)

<u>Effort Dimension</u>							
RB15	87	153	32	22	10	2.06	.99
PB19	82	131	38	41	12	2.43	1.11
RB38	76	162	32	28	6	2.10	.95
PA39	69	148	50	27	10	2.21	1.00
Reliability coefficient for 4 items = .78							

II. CAREER ENTRAPMENT

	Value1	Value2	Value3	Value4	Value5	Mean	sd
<u>Emotional Cost Dimension</u>							
Factor							
E42	26	58	69	83	67	3.35	1.25
E43	14	57	53	103	77	3.57	1.19
E53	4	30	52	140	77	3.85	.96
E56	5	39	41	134	85	3.84	1.03
E60	11	31	41	154	67	3.77	1.02
Reliability coefficient for 6 items = .87							

<u>Investment Dimension</u>							
V57	13	45	56	118	72	3.63	1.12
V58	27	104	65	57	51	3.00	1.25
V61	14	68	29	130	63	3.53	1.18
V63	10	49	42	130	73	3.68	1.11
V64	5	40	39	124	96	3.88	1.05
Reliability coefficient for 5 items = .85							

<u>Lack of Opportunities Dimension</u>							
O41	6	27	48	120	103	3.94	1.02
O44	8	28	47	116	105	3.93	1.05
O47	5	25	64	118	92	3.88	.99
O59	6	19	58	123	98	3.95	.97
Reliability coefficient for 5 items = .76							

I = Identification dimension, P = Planning dimension,
R = Resilience dimension, A = Affective, B = Behavioral,
C = Cognitive, E = Emotional Costs dimension, V = Investment dimension, O = Lack of Opportunities dimension

Correlation Matrices

Triangular disclosure matrices for career commitment and career entrapment are presented in Table 4.6. Correlations between the social desirability measure and individual items of career commitment were less than .30, ranging from -.11 to -.26. With career entrapment, correlations between social desirability and individual items ranged from -.13 to .05. Since correlations in the range of .20 (Loehlin, 1987) to .40 (Morrow & Goetz, 1988) have been used to demonstrate discriminant validity,

Correlation Matrices

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Table 4.6
Triangular Disclosure Matrices

I. CAREER COMMITMENT

Factors	SocDes	IC6	IA11	IC14	IA26	IA36	IB37	PB9	PC13	PB24	PB29	PC33	RC8	RA10	RA12	RC17	RC30
IC6	-.20	1.00															
IA11	-.21	.65	1.00														
IC14	-.17	.45	.67	1.00													
IA26	-.11	.60	.67	.63	1.00												
IA36	-.17	.61	.51	.59	.59	1.00											
IB37	-.17	.45	.56	.50	.54	.51	1.00										
PB9	-.17	.32	.30	.36	.25	.19	.24	1.00									
PC13	-.17	.45	.44	.47	.43	.36	.35	.32	1.00								
PB24	-.24	.52	.52	.53	.55	.44	.50	.36	.56	1.00							
PB29	-.21	.54	.51	.56	.44	.40	.38	.39	.51	.60	1.00						
PC33	-.26	.54	.51	.57	.46	.48	.44	.34	.49	.61	.65	1.00					
RC8	-.11	.41	.43	.39	.44	.45	.48	.27	.31	.41	.44	.42	1.00				
RA10	-.25	.12	.19	.15	.16	.21	.29	.14	.02	.13	.08	.18	.31	1.00			
RA12	-.21	.20	.32	.23	.28	.28	.35	.13	.20	.21	.17	.25	.42	.58	1.00		
RC17	-.15	.35	.31	.30	.26	.35	.44	.22	.24	.36	.30	.37	.48	.43	.48	1.00	
RC30	-.19	.20	.23	.22	.18	.37	.25	.12	.04	.17	.18	.28	.37	.55	.54	.47	1.00
RB15	-.19	.29	.30	.37	.27	.28	.27	.17	.19	.33	.33	.29	.31	.12	.16	.18	.18

.....
|.12| and above, $p \leq .05$

Table 4.6 (continued)

II. CAREER ENTRAPMENT

Factor	SocDes	E42	E43	E53	E56	E60	V57	V58	V61	V63	V64	O41	O44	O47
E42	-.10	1.00												
E43	-.05	.66	1.00											
E53	.01	.47	.60	1.00										
E56	-.04	.54	.66	.66	1.00									
E60	.01	.52	.56	.59	.65	1.00								
V57	-.01	.35	.41	.57	.56	.49	1.00							
V58	-.13	.49	.53	.41	.43	.35	.45	1.00						
V61	-.02	.33	.38	.39	.42	.41	.43	.43	1.00					
V63	-.02	.44	.48	.52	.55	.49	.59	.54	.54	1.00				
V64	-.06	.38	.46	.48	.50	.47	.60	.48	.59	.73	1.00			
O41	.02	.31	.34	.44	.33	.31	.43	.27	.28	.38	.36	1.00		
O44	-.01	.28	.35	.49	.34	.29	.42	.31	.26	.44	.34	.53	1.00	
O47	.05	.19	.24	.33	.30	.24	.33	.16	.22	.32	.24	.34	.51	1.00
O59	-.01	.18	.20	.29	.28	.19	.32	.27	.19	.30	.28	.27	.42	.54

|.12| and above, $p \leq .05$

Career Commitment versus Career Entrapment

All 60 career commitment and career entrapment items were factor analyzed together (see Table 4.7). Two major factors emerged from this analysis (eigenvalues 18.68 and 6.84). Twenty variables loaded on the first factor at a .50 level and above. Of these variables, 19 were career commitment items. Eighteen items loaded on the second factor at a .50 level and above. All were career entrapment items. Thus, this exploratory approach suggests that the career commitment measure and the career entrapment measure capture different constructs.

Table 4.7
Factor 1 and 2 of All Career Commitment and Career
Entrapment Items

Factor	Eigenvalue	Pct of Var
1	18.68	31.1%
2	6.84	11.4%

Varimax Rotation		
Variable	Factor 1	Factor 2
IC6	<u>.75</u>	.21
IA11	<u>.71</u>	.29
IC14	<u>.73</u>	.29
IA18	<u>.55</u>	.26
IC23	<u>.53</u>	.12
IA26	<u>.67</u>	.30
IC27	<u>.70</u>	.27
IA36	<u>.56</u>	.29
PA7	<u>.70</u>	.23
PC13	<u>.62</u>	.14
PB19	<u>.63</u>	.12
PB24	<u>.71</u>	.10
PA25	<u>.73</u>	-.03
PA28	<u>.56</u>	.15
PB29	<u>.72</u>	.18
PC33	<u>.67</u>	.24
PC35	<u>.71</u>	.19
RC21	<u>.63</u>	.31
RA40	<u>.52</u>	.10
<hr/>		
E42	.38	<u>.60</u>
E43	.42	<u>.68</u>
E48	.26	<u>.60</u>
E53	.21	<u>.75</u>
E54	-.01	<u>.62</u>
E56	.24	<u>.77</u>
E60	.19	<u>.73</u>
V45	.22	<u>.71</u>
V50	.49	<u>.59</u>
V51	-.01	<u>.50</u>
V56	.24	<u>.77</u>
V57	.07	<u>.75</u>
V58	<u>.59</u>	.44
V61	.32	<u>.50</u>
V63	.29	<u>.68</u>
V64	.27	<u>.64</u>
O44	.06	<u>.53</u>
O49	.22	<u>.51</u>
O62	.18	<u>.66</u>

IA, IB, IC, PA, PB, PC, RA, RB, RC = Career Commitment
Items
E, V, O = Career Entrapment Items

Retained and New Items

Of the 20 items retained for the career commitment measure, six items were affective, seven were behavioral, and seven were cognitive. However, these components were not equally distributed throughout the dimensions, i.e., the career identification dimension appeared to be predominantly affective while the career planning dimension appeared to be primarily behavioral. Thus, two behavioral items were added for the career identification dimension: "I would definitely advise an interested friend or relative to enter this line of work/career field" (cf. Downing et al., 1978) and "If I were offered higher pay in another line of work/career field, I would definitely take it" (cf. Bartol, 1979). To minimize split loadings with the career identification dimension, two items were generated for the career planning dimension, "I keep up with new developments in my line of work/career field" and "I have a strategy for keeping up with changes in my line of work/career field." For career resilience an additional self-generated affective item was, "It is nice being in this line of work/career field because there are so few disadvantages."

Two dimensions, career effort and lack of career opportunities had reliabilities of less than .80. To establish a minimum number of items per dimension and

increase reliabilities, three items were developed for the second pilot study. For the effort dimension of career commitment, two self-generated items were: "Compared to others in my line of work/career field, I exert a great deal of effort" and "It is not worth it to try hard in my line of work/career field." One self-generated item for the lack of opportunities dimension was: "I would have few attractive alternatives if I decided to change my line of work/career field." The new and retained items are presented in Table 4.8.

Table 4.8
Retained and New Items

I. CAREER COMMITMENT

Identification Dimension

IC6 I strongly identify with my chosen line of work/career field.

IA11 This line of work/career field has a great deal of personal meaning to me.

IC14 My line of work/career field is an important part of who I am.

IA26 I do not feel "emotionally attached" to this line of work/career field. (Reverse)

IA36 I do not feel a strong sense of belonging in this line of work/career field. (Reverse)

IB37 I frequently tell people about how great my line of work/career field is.

*IB I would definitely advise an interested friend or relative to enter this line of work/career field.

*IB If I were offered higher pay in another line of work/career field, I would definitely take it.

Table 4.8 (continued)

Planning Dimension

PB9 I readily learn new techniques and procedures associated with my line of work/career field.

PC13 I do not have a strategy for achieving my goals in this line of work/career field. (Reverse)

PB24 I do not identify specific goals for my development in this line of work/career field. (Reverse)

PB29 I have created a plan for my development in this line of work/career field.

PC33 I do not often think about personal development in my line of work/career field. (Reverse)

*PB I keep up with new developments in my line of work/career field.

Resilience Dimension

RC8 The benefits of this line of work/career field outweigh its costs.

RA10 The discomforts associated with my line of work/career field sometimes seem too great. (Reverse)

RA12 Given the problems in this line of work/career field, I sometimes wonder if the personal burden is worth it. (Reverse)

RC17 Given the problems I encounter in this line of work/career field, I sometimes wonder if I get enough out of it. (Reverse)

RC30 The costs associated with my line of work/career field sometimes seem too great. (Reverse)

*RA It is nice being in this line of work/career field because there are so few disadvantages.

Table 4.8 (continued)

Effort Dimension

RB15 Though my line of work/career field has its difficulties, I continue to try hard.

PB19 I am constantly trying to improve the skills I need for success in my line of work/career field.

RB38 I will continue to work hard in my line of work/career field despite its problem areas.

PA39 I feel irresponsible if I do not keep up with the developments in my line of work/career field.

*C Compared to others in my line of work/career field, I exert a great deal of effort.

*C It is not worth it to try hard in my line of work/career field. (Reverse)

CAREER ENTRAPMENT

Emotional Cost Dimension

E42 Changing my line of work/career field would be easy from an emotional standpoint. (Reverse)

E43 Leaving my line of work/career field would cause little emotional trauma in my life. (Reverse)

E53 A line of work/career field change would require an emotional cost that I am not willing to make.

E56 It would be emotionally difficult to change my line of work/career field.

E60 There would be a great emotional price involved in changing my line of work/career field.

Investment Dimension

V57 It would be very costly for me to switch my line of work/career field.

V58 I would enjoy changing my line of work/career field since I have so little invested. (Reverse)

Table 4.8 (continued)

V61 For me to enter another line of work/career field would mean giving up a substantial investment in training.

V63 I have too much time invested in my line of work/career field to change.

V64 I have too much money invested in my line of work/career field to change at this time.

Lack of Opportunities Dimension

041 If I left this line of work/career field, I would feel like I had no reasonable options.

044 I am pleased that I have many alternatives available for changing my line of work/career field. (Reverse)

047 I would have many options if I decided to change my line of work/career field. (Reverse)

059 Given my experience and background, there are attractive alternatives available to me in other lines of work/career fields. (Reverse)

*O I would have few attractive alternatives if I decided to change my line of work/career field.

I = Identification dimension, P = Planning dimension,
R = Resilience dimension, A = Affective, B = Behavioral,
C = Cognitive, E = Emotional Costs dimension, V =
Investment dimension, O = Lack of Opportunities dimension
* = New item for Second Pilot Study

Phase 2: Second Pilot Study

Following the initial pilot study, a second pilot study was conducted to further assess the psychometric properties of the career commitment items and the career entrapment items.

Survey Administration

Surveys were administered to employees working 16 or more hours per week (cf. Hom, 1979; Wakefield et al., 1987). The sample included 63 students in MBA courses at Louisiana State University and the University of New Orleans. Also surveyed were 174 undergraduate students at Louisiana State University, University of New Orleans, and Louisiana State University at Alexandria. No more than seven students overlapped with the first pilot study. Approximately 55.6% of the surveyed MBA students were employed on a full-time basis (35 hours or more per week; Feldman, 1990) as compared to 25.3% of the undergraduate students. To extend the generalizability of the sample, 26 employees from a variety of occupational settings were surveyed. Nine were late surveys from the initial study gathered on a convenience basis by student volunteers from Louisiana State University at Alexandria. Items retained from the initial study were analyzed for this respondent group. The remaining 17 were collected by sending surveys to contacts within organizations such as a public sector human resource department, a financial institution, and a fast-food restaurant. The surveys were distributed by the contacts, completed by the respondents, sealed, returned to the contacts, and then mailed back to the researcher. The final sample included 263 respondents working in a variety of occupations and settings. The average number

of hours worked per week was 30.7. Table 4.9 shows occupational classification by hours/week.

Table 4.9 Occupation by Hours/Week					
	0-23	24-34	35+	Missing	Row Total
Profession/Tech/ Recreation/Kindred	18	11	29	00	58
					22.1%
Manager/Supervisor except Farm	8	20	40	01	69
					26.2%
Sales Workers	14	4	8	00	26
					9.9%
Clerical/ Kindred	29	20	15	00	64
					24.3%
Student Workers	09	02	00	00	11
					4.2%
Craftsmen/ Kindred	00	00	02	00	02
					00.8%
Operatives except Transport	01	00	01	00	02
					00.8%
Laborers except Farm	02	00	00	00	02
					00.0%
Service Workers	10	13	05	00	28
					10.6%
Missing	00	00	01	00	01
					00.4%
Column Total	91	70	101	01	263
	34.6%	26.6%	38.4%	00.4%	100%

Survey for Second Pilot Study

As in the first pilot study, the following prefatory instructions introduced the survey for the second survey:

"This survey begins with statements about your LINE OF WORK or CAREER FIELD in which you are currently employed. You may consider line of work/career field as having the same meaning as occupation, profession, or vocation. All

responses will be treated confidentially. In no instance will an individual be identified as having provided a particular response."

A five-point scale was used to measure career commitment and career entrapment responses (1 = strongly agree to 5 = strongly disagree). The accompanying instructions were, "For each statement below, decide which response best indicates your attitude or position -- how much you agree or disagree with the statement. Place the number of the response on the line at the left." In addition, two organizational commitment measures developed by Meyer and Allen (1984) were included in the survey. All survey items are shown in Appendix B.

Principal Component Analysis

Principal component analysis with a varimax rotation was used to examine the 27 items of career commitment. With the eigenvalue-greater-than-1.0 stopping rule, five factors were identified with the following eigenvalues: 9.66, 2.90, 1.62, 1.34, and 1.03. The percentage of variance explained by the factors is 35.8%, 10.7%, 6.0%, 5.0%, and 3.8%, respectively. Based on the size of the eigenvalues, percentage of variance explained, and a scree plot, three factors were ultimately extracted.

The first factor consisted of items representing the career identification dimension, the second factor

consisted of items representing the career planning dimension, the third factor consisted of items representing the career resilience dimension. Thus, the principal component factor analysis indicated support for London's (1983) three dimensions of career commitment.

Six items loaded at .50 or above on the career identification dimension (see Table 4.10). These were Identification Cognitive (IC5) .74, Identification Behavioral (IB13) .54, Identification Affective (IA18) .78, Identification Affective (IA21) .74, Identification Affective (IA25) .70, and Identification Cognitive (IC30) .83. However, IB13 lowered the dimension's reliability and was subsequently dropped.

Five items loading at .50 or above on the career planning dimension were retained. These were Planning Cognitive (PC7) .77, Planning Cognitive (PC9) .59, Planning Behavioral (PB12) .75, Planning Behavioral (PB14) .77, and Planning Cognitive (PC22) .65. Items retained for the career resilience dimension were Resilience Cognitive (RC8) .80, Resilience Cognitive (RC23) .59, Resilience Affective (RA24) .66, Resilience Affective (RA26) .83, and Resilience Cognitive (RC29) .80.

Table 4.10
Factor Analysis of Career Commitment

Factor	Eigenvalue	Pct of Variance
1	9.66	35.8%
2	2.90	10.7%
3	1.62	6.0%

Variable	Varimax Rotation		
	Factor 1	Factor 2	Factor 3
IC5	<u>.74</u>	.23	.03
FB6	.30	.04	-.02
PC7	.18	<u>.77</u>	.12
RC8	-.08	.04	<u>.80</u>
PC9	.32	<u>.59</u>	.09
RC10	.45	.29	.43
IB11	.46	.23	.45
PB12	.32	<u>.75</u>	.15
IB13	<u>.54</u>	.29	.22
PB14	.34	<u>.77</u>	.09
FB15	.30	.56	.11
PB16	.10	.35	.04
FC17	.08	.17	.01
IA18	<u>.78</u>	.36	.08
IB19	.60	.17	.46
FB20	.23	.12	.20
IA21	<u>.74</u>	.14	.13
PC22	.16	<u>.65</u>	-.02
RC23	.25	.16	<u>.59</u>
RA24	.13	-.03	<u>.66</u>
IA25	<u>.70</u>	.19	.23
RA26	.15	.11	<u>.83</u>
FA27	.11	.06	.03
PB28	.06	.27	.01
RC29	.18	.08	<u>.80</u>
IC30	<u>.83</u>	.26	.06
FC31	.33	.29	.18

 I = Identification dimension, P = Planning dimension,
 R = Resilience dimension, F = Effort Dimension
 A = Affective, B = Behavioral, C = Cognitive

Three factors were extracted for career entrapment (see Table 4.11). Eigenvalues for these factors were 6.51, 2.49, and 1.14. Percent of variance explained was

43.4%, 16.6%, and 7.6% respectively. Of the 15 items, 12 were retained. First factor items represented the emotional cost dimension. The four highest item loadings on this factor were (E33) .80, (E35) .86, (E37) .84, and (E40) .79. Second factor items represented the lack of career opportunities dimension. The highest item loadings for this factor were (O34) .79, (O43) .82, (O44) .75, and (O46) .85. Third factor items represented the career investments dimension. The four highest item loadings were (V32) .78, (V38) .70, (V39) .74, and (V45) .79.

Table 4.11
Factor Analysis of Career Entrapment

Factor	Eigenvalue	Pct of Var	
1	6.51	43.4%	
2	2.49	16.6%	
3	1.14	7.6%	

Variable	Varimax Rotation		
	Factor 1	Factor 2	Factor 3
V32	.27	.18	<u>.78</u>
E33	<u>.80</u>	.03	.39
O34	.13	<u>.79</u>	.20
E35	<u>.86</u>	.15	.21
O36	.10	.68	.05
E37	<u>.84</u>	.14	.31
V38	.29	.16	<u>.70</u>
V39	.24	.30	<u>.74</u>
E40	<u>.79</u>	.08	.12
V41	.47	.04	.57
E42	.60	.19	.45
O43	.07	<u>.82</u>	.15
O44	.12	<u>.75</u>	.17
V45	.17	.19	<u>.79</u>
O46	.03	<u>.85</u>	.18

E = Emotional Costs, V = Investments,
O = Lack of Opportunities

Confirmatory Factor Analysis

Confirmatory factor analysis was conducted using LISREL VI (Jöreskog & Sorbom, 1984). Maximum likelihood estimates for the six dimensions of career commitment and career entrapment ranged from .551 to .889 (see Table 4.12). All maximum likelihood estimates were significant with t -values ranging from 9.1 to 18.0. Chi-square was 546.45 with 309 degrees of freedom. Thus, chisquare/degrees of freedom (χ^2/df) was 1.7. The Goodness-of-Fit Index (GFI) was .869 while the Adjusted Goodness-of-Fit Index (AGFI) was .840. Finally, the root mean square residual (RMSR) was .058. The χ^2/df , GFI, AGFI, and RMSR indicate a satisfactory fit to the data when conducting confirmatory factor analysis (James, Mulaik, & Brett, 1982; Jöreskog & Sorbom, 1984).

Table 4.12
Confirmatory Factor Analysis

Items	Factors				
	Career Identity	Career Planning	Career Resilience	Amount of Investment	Lack of Opportunity Emotional Cost
IC5	.763*				
IA18	.882*				
IA21	.724*				
IA25	.730*				
IC30	.889*				
PC7		.730*			
PC9		.681*			
PB12		.825*			
PB14		.844*			
PC22		.635*			
RC8			.697*		
RC23			.563*		
RA24			.551*		
RA26			.868*		
RC29			.789*		
V32				.800*	
V38				.710*	
V39				.801*	
V45				.738*	
O34					.776*
O43					.812*
O44					.690*
O46					.847*
E33					.868*
E35					.875*
E37					.889*
E40					.693*

Chi-square = 546.45; df = 309
GFI = .869; AGFI = .840; RSMR = .058

* = significant, t-values range from 9.1 to 18.0
I = Identification dimension, P = Planning dimension,
R = Resilience dimension, A = Affective, B = Behavioral,
C = Cognitive, E = Emotional Costs dimension, V = Investment dimension, O = Lack of Opportunities dimension

Short forms of both the career commitment measure and the career entrapment measure were also analyzed using confirmatory factor analysis (see Table 4.13). Twelve items were chosen which displayed satisfactory reliabilities for the three factors of career commitment. Four of the items tapped career identification (IC5, IA18, IA21, & IC30; alpha coefficient = .89), four tapped career planning (PC7, PC9, PB12, & PB14; alpha coefficient = .85), and four tapped career resilience (RC8, RC23, RA26, & RC29; alpha coefficient = .81). The alpha coefficient for the twelve-item career commitment measure was .87.

Similarly, nine items were chosen which displayed satisfactory reliabilities for three factors of career entrapment. Three items gauged emotional costs (E33, E35, & E37; alpha coefficient = .91), three items gauged lack of opportunities (O34, O43, & O46; alpha coefficient = .84), and three items gauged career investments (V32, V39, & V45; alpha coefficient = .83). Reliability for the nine-item career entrapment measure was .84.

Maximum likelihood estimates for the six dimensions of the short forms of the career commitment and career entrapment measures ranged from .613 to .918. All maximum likelihood estimates were significant with t -values ranging from 9.3 to 18.2. Chi-square was 329.26 with 174 degrees of freedom. Thus, χ^2/df was 1.89. GFI is .898

while AGFI was .865. Finally, RMSR was .059. The χ^2/df , GFI, AGFI, and RMSR indicated a adequate fit to the data for the short version of the two measures (James, Mulaik, & Brett; Jöreskog & Sorbom, 1984).

Table 4.13
Confirmatory Factor Analysis of Short Version Measures

Items	Factors				
	Career Identity	Career Planning	Career Resilience	Amount of Investment	Lack of Emotional Opportunity Cost
IC5	.771*				
IA18	.883*				
IA21	.706*				
IC30	.896*				
PC7		.726*			
PC9		.692*			
PB12		.838*			
PB14		.828*			
RC8			.685*		
RC23			.567*		
RA26			.866*		
RC29			.801*		
V32				.819*	
V39				.779*	
V45				.754*	
O34					.765*
O43					.829*
O46					.847*
E33					.866*
E35					.875*
E37					.894*

Chi-square = 329.26; df = 147
GFI = .898; AGFI = .865; RMSR = .059

* = significant, t-values range from 9.3 to 18.2
I = Identification dimension, P = Planning dimension,
R = Resilience dimension, A = Affective, B = Behavioral,
C = Cognitive, E = Emotional Costs dimension, V = Investment dimension, O = Lack of Opportunities dimension

Frequencies and Reliabilities

Frequency distributions and reliabilities are presented in Table 4.14. Means for the fifteen items representing career commitment ranged from 2.35 to 3.12. Standard deviations ranged from 1.00 to 1.24 with respondents using all anchors on the 5-point scale. Reliability coefficients for the three dimensions were .90, .86, and .82. Variability in responses as well as high reliabilities suggested that restriction of range did not represent a problem for the career commitment measure.

Means for the twelve items representing career entrapment ranged from 3.18 to 3.96. Standard deviations ranged from 0.96 to 1.26. As with career commitment, all anchors were used by respondents. Reliability coefficients for the three dimensions were .90, .85, and .85. Variability in responses and high reliabilities suggested no restriction in range for the career entrapment measure.

Table 4.14
Frequencies, Means, Standard Deviations, and Reliabilities

I. CAREER COMMITMENT

	Value1	Value2	Value3	Value4	Value5	Mean	sd
<u>Identification Dimension</u>							
IC5	69	102	35	40	16	2.36	1.20
IA18	53	102	39	52	16	2.53	1.19
IA21	25	81	40	81	35	3.08	1.24
IA25	45	111	42	47	17	2.54	1.16
IC30	48	94	52	49	19	2.61	1.19
Reliability coefficient for 5 items = .90							
<u>Planning Dimension</u>							
PC7	64	101	29	55	12	2.43	1.20
PC9	75	102	18	51	15	2.35	1.24
PB12	51	114	26	56	14	2.49	1.18
PB14	30	104	35	82	11	2.77	1.14
PC22	21	118	49	59	6	2.65	1.00
Reliability coefficient for 5 items = .86							
<u>Resilience Dimension</u>							
RC8	34	119	33	55	21	2.66	1.18
RC23	8	91	50	87	25	3.12	1.09
RA24	17	76	61	74	25	3.06	1.12
RA26	23	134	30	58	17	2.66	1.11
RC29	12	116	52	65	17	2.84	1.06
Reliability coefficient for 5 items = .82							

Overall reliability coefficient for the 15-item measure is .89.

II. CAREER ENTRAPMENT

	Value1	Value2	Value3	Value4	Value5	Mean	sd
<u>Emotional Cost Dimension</u>							
E33	14	56	44	93	55	3.45	1.19
E35	15	58	71	65	53	3.32	1.19
E37	10	46	56	91	59	3.55	1.13
E40	17	50	66	81	48	3.36	1.17
Reliability coefficient for 4 items = .90							
<u>Lack of Opportunities Dimension</u>							
O34	4	25	40	116	77	3.91	.98
O43	6	31	52	111	62	3.73	1.02
O44	6	18	35	124	79	3.96	.96
O46	5	23	71	102	60	3.72	.98
Reliability coefficient for 4 items = .85							
<u>Investment Dimension</u>							
V32	18	29	44	115	56	3.62	1.14
V38	30	63	36	97	36	3.18	1.26
V39	15	37	50	119	41	3.51	1.09
V45	7	36	27	128	64	3.79	1.05
Reliability coefficient for 4 items = .85							

Overall reliability coefficient for the 12-item measure is .89.

I = Identification dimension, P = Planning dimension,
R = Resilience dimension, A = Affective, B = Behavioral,
C = Cognitive, E = Emotional Costs dimension, V = Investment dimension, O = Lack of Opportunities
dimension

Correlation Matrices

Triangular disclosure matrices for the selected career commitment items and the selected career entrapment items are presented in Table 4.15.

Table 4.15
Triangular disclosure matrices

I. CAREER COMMITMENT

Factors	IC5	IA18	IA21	IA25	IC30	PC7	PC9	PB12	PB14	PC22	RC8	RC23	RA24	RA26	RA29
IC5	1.00														
IA18	.69	1.00													
IA21	.53	.61	1.00												
IA25	.51	.64	.62	1.00											
IC30	.70	.79	.63	.63	1.00										
PC7	.38	.43	.26	.33	.39	1.00									
PC9	.37	.51	.38	.43	.49	.49	1.00								
PB12	.45	.57	.40	.43	.51	.61	.59	1.00							
PB14	.46	.60	.40	.44	.52	.63	.54	.69	1.00						
PC22	.39	.42	.29	.27	.38	.48	.38	.49	.58	1.00					
RC8	-.03	.06	.09	.18	.05	.12	.08	.14	.07	-.03	1.00				
RC23	.28	.25	.32	.28	.24	.24	.20	.27	.25	.19	.36	1.00			
RA24	.16	.20	.17	.22	.19	.06	.08	.21	.13	.09	.45	.30	1.00		
RA26	.21	.26	.25	.40	.23	.20	.21	.23	.20	.15	.64	.43	.47	1.00	
RC29	.23	.23	.27	.29	.22	.19	.23	.22	.21	.05	.50	.54	.40	.69	1.00

|.12| and above, $p \leq .05$

II. CAREER ENTRAPMENT

Factor	E33	E35	E37	E40	O34	O43	O44	O46	V32	V38	V39	V45
E33	1.00											
E35	.74	1.00										
E37	.77	.80	1.00									
E40	.61	.61	.60	1.00								
O34	.18	.29	.30	.17	1.00							
O43	.13	.21	.18	.19	.63	1.00						
O44	.17	.22	.27	.17	.56	.53	1.00					
O46	.13	.21	.18	.12	.64	.71	.58	1.00				
V32	.54	.43	.47	.35	.34	.30	.28	.30	1.00			
V38	.46	.43	.51	.33	.28	.23	.28	.27	.54	1.00		
V39	.51	.42	.44	.35	.38	.34	.39	.35	.64	.60	1.00	
V45	.46	.33	.45	.26	.35	.27	.27	.29	.62	.49	.58	1.00

|.12| and above, $p \leq .05$

Table 4.16 displays a triangular disclosure matrix for the career commitment measure, career entrapment measure, affective organizational commitment measure, and

continuance organizational commitment measure. Career commitment was highly correlated with affective organizational commitment (.62), but was relatively independent of continuance organizational commitment (.07). Career entrapment was correlated with continuance organizational commitment at a .52 level, but was correlated with affective organizational commitment at a .35 level. The correlation between career commitment and career entrapment was moderate (.40).

Table 4.16
Correlation Among Measures

Factor	Organizational Commitment Affective	Organizational Commitment Continuance	Career Commitment	Career Entrapment
Organizational Commitment Affective	1.00			
Organizational Commitment Continuance	.19	1.00		
Career Commitment	.62	.07	1.00	
Career Entrapment	.35	.52	.40	1.00

|.12| and above, $p \leq .05$

Retained Items

Retained items of career commitment and career entrapment to be used in the field study are shown in Table 4.17.

Table 4.17
Selected Items for the Measures

I. Career Commitment

IC My line of work/career field is an important part of who I am.

RA It is nice being in this line of work/career field because there are so few disadvantages.

PC I do not have a strategy for achieving my goals in this line of work/career field. (Reverse Scored)

RC The costs associated with my line of work/career field sometimes seem too great. (Reverse Scored)

IA This line of work/career field has a great deal of personal meaning to me.

PB I have created a plan for my development in this line of work/career field.

RC Given the problems I encounter in this line of work/career field, I sometimes wonder if I get enough out of it. (Reverse Scored)

PB I do not identify specific goals for my development in this line of work/career field. (Reverse Scored)

IA I do not feel "emotionally attached" to this line of work/career field. (Reverse Scored)

RC Given the problems in this line of work/career field, I sometimes wonder if the personal burden is worth it. (Reverse Scored)

IA I do not feel a strong sense of belonging in this line of work/career field. (Reverse Scored)

Table 4.17 (continued)

PC I have a strategy for keeping up with changes in my line of work/career field.

RA The discomforts associated with my line of work/career field sometimes seem too great. (Reverse Scored)

PC I do not often think about my personal development in this line of work/career field. (Reverse Scored)

IC I strongly identify with my chosen line of work/career field.

I = Identification dimension, P = Planning dimension,
R = Resilience dimension, A = Affective, B = Behavioral,
C = Cognitive.

II. Career Entrapment

V I have too much time invested in my line of work/career field to change.

O If I left this line of work/career field, I would feel like I had no reasonable options.

E There would be a great emotional price involved in changing my line of work/career field.

O Given my experience and background, there are attractive alternatives available to me in other lines of work/career fields. (Reverse Scored)

E Changing my line of work/career field would be easy from an emotional standpoint. (Reverse Scored)

O I would have many options if I decided to change my line of work/career field. (Reverse Scored)

V It would be very costly for me to switch my line of work/career field.

E Leaving my line of work/career field would cause little emotional trauma in my life. (Reverse Scored)

O I am pleased that I have many alternatives available for changing my line of work/career field. (Reverse Scored)

V For me to enter another line of work/career field would mean giving up a substantial investment in training.

Table 4.17 (continued)

E It would be emotionally difficult to change my line of work/career field.

V I have too much money invested in my line of work/career field to change at this time.

E = Emotional Costs dimension, V = Investment dimension, O = Lack of Opportunities dimension

Phase 3: Field Study

Objectives of the field study included examining psychometric properties and establishing construct validity of the multidimensional career commitment measure. To assist in establishing discriminant validity, a career entrapment measure along with several other job-related variables were also examined.

Survey Administration

Employees in a variety of work settings were surveyed. Over 85% were college graduates, 66% were married, 60.5% were women, and 95.8% were full-time employees. Average respondent age was 43 years old while average tenure in line of work was 182 months, in organization was 119 months, in present position was 80 months, and with supervisor was 47 months.

Of the 1292 surveys distributed, 476 were returned

for a response rate of 36.8%, which is above the traditional return rate of 20% to 30% (Peterson, 1982). A large number of employees were surveyed to avoid Type II errors (Cook & Campbell, 1979). Employees from a variety of settings with varying levels of professionalism were selected on a convenience basis to extend the generalizability of the findings. The final sample included 141 employees at Austin Peay State University (response rate = 23.8%; example job types include teaching faculty and counselors), 21 employees of food services at Louisiana State University (response rate = 14.5%; example job types include dietitians and supervisors), 14 employees of engineering services at Louisiana State University (response rate = 60.9%; example job types include computer analysts and clerks), and 94 Doctors of Veterinary Medicine at Louisiana State University (response rate = 55.0%; example job types include lecturing faculty and clinicians). Other respondents include 22 employees from a nursing home (response rate = 44.0%; example job types include practical nurses and nursing assistants), six employees from a packaging plant (response rate = 26.1%; example job types include truck loaders and drivers), eight employees from a public school system computer service (response rate = 66.7%; example job types include data entry operators and clerks); 137 respondents from the Louisiana Library Association,

academic section (response rate = 66.5%; example job types include reference librarians and circulation librarians) and 33 respondents from the Capital Area Personnel Association (response rate = 47.8%; example job types include personnel managers and human resource specialists).

In three settings (nursing home, packaging plant, and computer service), the surveys were distributed by the unit manager with instructions that employees fold, seal, and return the pre-stamped survey directly to the researcher. University employees were surveyed by campus mail. Members of the Louisiana Library Association and Capital Area Personnel Association were surveyed by mail using pre-stamped surveys. The librarian group also received a follow-up postcard two weeks after initial mailing.

Survey for Field Study

Accompanying each survey was a cover letter encouraging participation and assuring confidentiality of responses. The following prefatory instructions introduced the first section of the survey: "This survey begins with statements about your **LINE OF WORK** of work or **CAREER FIELD** in which you are currently employed. You may consider line of work/career field as having the same meaning as **occupation, profession, or vocation**. For each

statement below, decide which response best indicates your attitude or position - how much you agree or disagree with the statement. Place the number of the response at the left." A five-point scale was used to measure career commitment and career entrapment responses (1 = "strongly disagree" to 5 = "strongly agree").

In addition, three other subsections were included in the survey. The second and third sections used the same anchors as the first section. Second section instructions read, "Listed below are a series of statements that represent possible feelings that individuals might have about the **ORGANIZATION** or **COMPANY** for which they work. With respect to your own feelings about the particular organization/company for which you are now working, please indicate your agreement or disagreement." Third section instructions read, "Below are a number of statements each of which you may agree or disagree with depending on your own personal evaluation of **YOUR PRESENT JOB**. Please indicate the degree of your agreement or disagreement with each statement.

The fourth section of the survey instructed the respondent to, "Please check your response or fill in the blank with the appropriate information for each of the following items." Respondents provided information about gender, age, educational level, marital status, children, and relatives. Information was also provided on tenure in

one's career, organization, position, and with one's supervisor. Finally, information was collected on number of hours worked in a typical week and position title. Items included in the survey are shown in Appendix C.

Factor Analysis of New Career Commitment Measure.

Fifteen items for the career commitment measure (three-dimensional) were examined using principal component analysis with a varimax rotation. Along with the 15 career commitment items, five career satisfaction items (unidimensional) and three career withdrawal intentions items (unidimensional) were factor analyzed. Consistent with theoretical predictions, a scree plot suggested a five factor solution. The eigenvalues for the five factors were 7.13, 2.59, 1.74, 1.32, and 1.19 with percentage of variance explained of 31.0%, 11.3%, 7.6%, 5.7%, and 5.2%, respectively (see Table 4.18).

Items tapping the career resilience dimension represented the first factor, items tapping the career identification dimension represented the second factor, and items tapping the career planning dimension represented the third factor. Thus, principal component analysis again indicated support for London's (1983) three dimensions of career commitment. Finally, career satisfaction items loaded on the fourth factor while career withdrawal intentions items loaded on the fifth.

Table 4.18
Factor Analysis of Career Commitment, Career Satisfaction, and Career Withdrawal

Factor	Eigenvalue	Pct of Variance			
1	7.13	31.0%			
2	2.59	11.3%			
3	1.74	7.6%			
4	1.32	5.7%			
5	1.19	5.2%			

Variable	Varimax Rotation				
	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
IC5	.05	<u>.79</u>	.14	.10	-.04
RA6	<u>.58</u>	.25	-.12	.19	-.06
PC7	.05	.08	<u>.74</u>	.17	.09
RC8	<u>.75</u>	-.06	-.04	-.05	.06
IA9	.08	<u>.72</u>	.19	.22	.25
PB10	-.01	.25	<u>.79</u>	.08	.13
RC11	<u>.77</u>	.05	.18	.18	.19
PB12	.03	.15	<u>.79</u>	.13	.04
IA13	.03	<u>.69</u>	.20	.06	.19
RC14	<u>.83</u>	.07	.14	.16	.15
IA15	.16	<u>.52</u>	.27	.24	.27
PC16	.10	.05	<u>.53</u>	.01	.19
RA17	<u>.80</u>	.06	.10	.07	.19
PC18	.02	.23	<u>.60</u>	.09	-.05
IC19	.08	<u>.66</u>	.17	.22	.26
CS32	.10	.18	.06	<u>.80</u>	.13
CS33	.10	.03	.11	<u>.82</u>	.14
CS34	.24	.15	.12	<u>.51</u>	.40
CS35	.05	.24	.15	<u>.57</u>	.06
CS36	.20	.25	.17	<u>.54</u>	.41
CW53	-.29	-.19	-.17	-.25	<u>-.72</u>
CW54	-.06	-.13	-.09	-.14	<u>-.82</u>
CW55	-.14	-.26	-.09	-.14	<u>-.76</u>

I = Identification dimension, P = Planning dimension,
R = Resilience dimension, F = Effort Dimension
A = Affective, B = Behavioral, C = Cognitive
CS = Career Satisfaction CW = Career Withdrawal Intentions

Items tapping the career resilience dimension were Resilience Affective (RA6) .58, Resilience Cognitive (RC8) .75, Resilience Cognitive (RC11) .77, Resilience Cognitive (RC14) .83, and Resilience Affective (RA17) .80. Items tapping the career identification dimension were Identification Cognitive (IC5) .79, Identification Affective (IA9) .72, Identification Affective (IA13) .69, Identification Affective (IA15) .52, and Identification

Cognitive (IC19) .66. Items tapping the career planning dimension were Planning Cognitive (PC7) .73, Planning Behavioral (PB10) .79, Planning Behavioral (PB12) .79, Planning Cognitive (PC16) .53, and Planning Cognitive (PC18) .60.

Representing the fourth factor was career satisfaction with five items loading at .80, .82, .51, .57, and .54. The fifth factor was defined by the career withdrawal intention items loading at -.72, -.82, and -.76.

Factor Analysis of Blau's Career Commitment Measure

Blau's (1988, 1989) seven-item career commitment measure was examined using principal component analysis. Again, five items tapping career satisfaction and three items tapping career withdrawal intentions were factor analyzed. Results of the principal component analysis with the varimax rotation is shown in Table 4.19.

Table 4.19
Factor Analysis of Blau's Career Commitment, Career Satisfaction, and Career Withdrawal

Factor	Eigenvalue	Pct of Variance
1	6.96	46.4%
2	1.36	9.1%

Table 4.19 (continued)

Variable	Varimax Rotation	
	Factor 1	Factor 2
CS32	.17	<u>.81</u>
CS33	.16	<u>.81</u>
CS34	.39	<u>.58</u>
CS35	.16	<u>.61</u>
CS36	.52	<u>.59</u>
CW53	<u>-.74</u>	-.29
CW54	<u>-.71</u>	-.18
CW55	<u>-.73</u>	-.17
BL46	<u>.68</u>	.12
BL47	<u>.72</u>	.22
BL48	<u>.67</u>	.29
BL49	<u>.63</u>	.27
BL50	<u>.77</u>	.22
BL51	<u>.70</u>	.23
BL52	<u>.60</u>	.38

 BL = Blau's Career Commitment Measure
 CS = Career Satisfaction CW = Career Withdrawal
 Intentions

Contrary to a three factor theoretical prediction, only two factors were found. Eigenvalues for the factors were 6.96 and 1.36. Percentage of variance explained was 46.4% and 9.1%, respectively. The first factor overlapped with the career withdrawal intentions measure (cf. Michaels & Spector, 1983) in that all three career withdrawal intentions items loaded (-.74, -.71, -.73) with the seven career commitment items (.68, .72, .67, .63, .77, .70, .60). Career satisfaction items loaded on a second factor (.81, .81, .58, .61, .59).

Factor Analysis of the Adapted OCQ

The short version of the adapted Organizational Commitment Questionnaire (OCQ) contains nine items with the words "line of work/career field" replacing "organization." Three items tap identification with career field, three tap extra role behavior in career field, and three tap membership retention in career field (cf. Mowday et al., 1979). Using principal component analysis, the nine items of the adapted OCQ along with five items of career satisfaction and three items of career withdrawal intentions were examined. Four factors were extracted. Eigenvalues for the four factors were 7.01, 1.29, 1.12, and 1.03. Percentage of variance explained by the factors was 41.2%, 7.6%, 6.6%, and 6.0%, respectively.

Only five of the nine adapted OCQ items loaded cleanly on the first factor. Two of the items tapping membership retention showed split loadings with the second factor defined by career withdrawal intentions. One of the adapted OCQ items loaded on the third factor defined by career satisfaction. The final item of the adapted OCQ loaded on the fourth factor. Results are shown in Table 4.20.

Table 4.20
Factor Analysis of Adapted OCQ, Career Satisfaction, and
Career Withdrawal

Factor	Eigenvalue	Pct of Variance		
1	7.01	41.2%		
2	1.29	7.6%		
3	1.12	6.6%		
4	1.03	6.0%		

Varimax Rotation				
Variable	Factor 1	Factor 2	Factor 3	Factor 4
CS32	.16	.16	<u>.81</u>	.04
CS33	.08	.19	<u>.81</u>	-.05
CS34	.33	.33	<u>.50</u>	.11
CS35	.27	.20	<u>.48</u>	-.48
CS36	.39	.38	<u>.56</u>	.10
CW53	-.31	-.72	-.26	-.12
CW54	-.19	-.80	-.15	-.05
CW55	-.18	-.83	-.14	-.01
CQ37	<u>.47</u>	-.02	<u>.43</u>	.39
CQ38	<u>.47</u>	.15	.37	.31
CQ39	.05	.22	.04	<u>.76</u>
CQ40	<u>.68</u>	.20	-.06	-.01
CQ41	<u>.73</u>	.26	.19	-.07
CQ42	<u>.75</u>	.18	.28	.11
CQ43	<u>.55</u>	<u>.42</u>	.33	.21
CQ44	<u>.61</u>	.24	.27	-.09
CQ45	<u>.43</u>	<u>.57</u>	.27	.19

CQ = OCQ Career Commitment Measure

CS = Career Satisfaction CW = Career Withdrawal
Intentions

Confirmatory Factor Analysis of Career Commitment and Career Entrapment Measures

Confirmatory factor analysis was conducted using LISREL VI (Jöreskog & Sorbom, 1984). All items of the three dimensions of career commitment (career identification, career planning, and career resilience)

and the three dimensions of career entrapment (emotional cost, lack of career alternatives, and career investments) were examined together (see Table 4.21). Maximum likelihood estimates for the five career identification items were .635, .787, .650, .645, and .729; for the five career planning items were .745, .795, .734, .418, and .519; for the five career resilience items were .612, .558, .757, .840, and .762; for the four emotional costs items were .794, .814, .805, and .808; for the four lack of career alternative items were .649, .772, .803, and .849; and for the four career investment items were .605, .664, .662, and .792. All maximum likelihood estimates were significant with t -values ranging from 9.3 to 21.9.

Chi-square was significant ($\chi^2 = 676.76$; $df = 309$; $p \leq .01$). However, because of sample size sensitivity of chi-square (Bentler & Bonett, 1980; Jöreskog & Sorbom, 1984), other goodness-of-fit indices were used. The χ^2/df was 1.78. GFI was .904 while AGFI was .882. RMSR was .053. The Normed Fit Index (NFI; Bentler & Bonett, 1980) was .887 while the Parsimonious Normed-Fit Index (PNFI; Mulaik et al, 1989) was .831. Finally, the Tucker-Lewis Index (TLI; Tucker & Lewis, 1973; Marsh et al., 1988) was .930. The χ^2/df , GFI, AGFI, RMSR, NFI, PNFI, and TLI indicated a satisfactory fit to the data.

Table 4.21
Confirmatory Factor Analysis of Career Commitment and Career Entrapment

Items	Factors				
	Career Identity	Career Planning	Career Resilience	Emotional Cost	Lack of Alternative Investment
IC5	.635*				
IA9	.787*				
IA13	.650*				
IA15	.645*				
IC19	.729*				
PC7		.745*			
PB10		.795*			
PB12		.734*			
PC16		.418*			
PC18		.519*			
RA6			.612*		
RC8			.558*		
RC11			.757*		
RC14			.840*		
RA17			.762*		
CE22				.794*	
CE24				.814*	
CE27				.805*	
CE30				.808*	
CA21					.649*
CA23					.772*
CA25					.803*
CA28					.849*
CV20					.605*
CV26					.664*
CV29					.662*
CV31					.792*

Chi-square = 676.76; df = 309
GFI = .904; AGFI = .882; RSMR = .053

* = significant, t-values range from 9.3 to 21.9
I = Identification dimension, P = Planning dimension,
R = Resilience dimension, A = Affective, B = Behavioral,
C = Cognitive, CE = Emotional Costs dimension, CV = Investment dimension, CA = Lack of
Alternatives dimension

Short forms of both a 12-item multidimensional career commitment measure (MCCM) and a 9-item career entrapment measure were analyzed using confirmatory factor analysis. Of the 12 items representing three factors of career commitment, four of the items tapped career identification (IC5, IA9, IA13, & IC19), four tapped career planning (PC7, PB10, PB12, & PC18), and four tapped career resilience (RC8, RC11, RC14, & RA17). Of the nine items

representing three factors of career entrapment, three items gauged emotional costs (CE22, CE24, & CE30), three items gauged lack of alternatives (CA23, CA25, & CA28), and three items gauged career investments (CV20, CV26, & CV31).

Assessment of the normalized residuals for the career commitment measure indicated that only 9.1% were above the 2.0 level with the highest normalized residual at 2.99. Examination of items constrained at their theoretical dimensions yielded modification index values ranging from .02 to 15.56 with only two values above 6.84. Further, the phi matrix for the career commitment dimensions suggested discrimination among London's (1983) theoretical dimensions (identification - resilience = .29; identification - planning = .55; resilience - planning = .23).

Maximum likelihood estimates for the six dimensions of short forms of the career commitment and career entrapment measures ranged from .535 to .870 (See Table 4.22). All maximum likelihood estimates were significant with t -values ranging from 11.7 to 21.1. Chi-square was 301.36 with 174 degrees of freedom. As expected with a large sample size, the chi-square was again significant ($p \leq .01$; Bentler & Bonett, 1980; Jöreskog & Sörbom, 1984). Thus, other indices were used.

Table 4.22
Confirmatory Factor Analysis of Short Versions of the Career Commitment and Career Entrapment

Items	Factors				
	Career Identity	Career Planning	Career Resilience	Emotional Cost	Lack of Alternative Investment
IC5	.655*				
IA9	.813*				
IA13	.661*				
IC19	.690*				
PC7		.685*			
PB10		.828*			
PB12		.746*			
PC18		.535*			
RC8			.557*		
RC11			.832*		
RC14			.870*		
RA17			.776*		
CE22				.871*	
CE24				.705*	
CE30				.839*	
CA23					.766*
CA25					.827*
CA28					.846*
CV20					.597*
CV26					.695*
CV31					.799*

Chi-square = 310.36; df = 174
GFI = .943; AGFI = .925; RSMR = .045

* = significant, t-values range from 11.4 to 21.1
I = Identification dimension, P = Planning dimension,
R = Resilience dimension, A = Affective, B = Behavioral,
C = Cognitive, CE = Emotional Costs dimension, CV = Investment dimension, CA = Lack of
Alternatives dimension

The χ^2/df was 1.78, GFI was .943, AGFI was .925, RSMR was .045, NFI was .930, PNFI was .856, and TLI was .965. These indices indicated a good fit to the data. Because of a superior fit and a greater utility of shorter measures (Anastasi, 1976; Herzog & Bachman, 1981), the short-form of the career commitment measure (12 items) and the short-form of the career entrapment measure (9 items) were used for further analyses.

Frequencies and Reliabilities

Frequency distributions and reliabilities are presented in Table 4.23. Means for the 12 items representing short-form career commitment measure ranged from 3.21 to 4.29. Standard deviations ranged from .86 to 1.18 with respondents using all anchors on the 5-point scale. Reliability coefficients for the three dimensions with four items each were .79, .79, and .85. Overall reliability coefficient for the MCCM was .81. Though all response categories were used, standard deviations appeared to be slightly restricted. This slight restriction in range may be sample specific in that most respondents were highly educated (436 of 476 respondents have bachelor degrees or above) and, thus, were more likely report commitment to their careers than those less well educated. Fortunately, this slight restriction in range did not appear to substantially lower reliabilities.

Means for the nine items representing the short-form career entrapment measure ranged from 2.31 to 3.39. Standard deviations ranged from 0.97 to 1.32. All anchors were used by respondents. Reliability coefficients for the three dimensions were .73, .85, and .88. Overall reliability coefficient for the nine-item measure was .84. Variability in responses and high reliabilities suggested little restriction in range for the career entrapment measure.

Table 4.23
Frequencies, Means, Standard Deviations, and Reliabilities

I. CAREER COMMITMENT

Identification Dimension

	Value1	Value2	Value3	Value4	Value5	Mean	sd
Factor							
IC5	5	30	10	204	224	4.29	.87
IA9	6	26	25	232	185	4.19	.86
IA13	20	66	27	212	149	3.85	1.14
IA15	14	29	15	228	188	4.15	.96
IC19	8	34	39	241	151	4.04	.92

Reliability coefficient for 5 items = .82

Reliability coefficient for 4 items (minus IA15) = .79

Planning Dimension

PC7	7	57	47	233	130	3.89	.99
PB10	6	70	65	254	80	3.70	.96
PB12	9	69	37	239	121	3.83	1.03
PC16	5	28	59	314	67	3.87	.76
PC18	3	55	23	274	119	3.95	.91

Reliability coefficient for 5 items = .77

Reliability coefficient for 4 items (minus PC16) = .79

Resilience Dimension

RA6	20	127	88	203	30	3.21	1.05
RCB	29	92	51	234	68	3.46	1.14
RC11	26	129	50	199	71	3.34	1.18
RC14	25	108	53	212	75	3.43	1.16
RA17	12	93	46	243	80	3.60	1.06

Reliability coefficient for 5 items = .83

Reliability coefficient for 4 items (minus RA6) = .85

Overall reliability coefficient for the 15-item measure is .84.

Overall reliability coefficient for the 12-item measure is .81.

Table 4.23 (continued)

11. CAREER ENTRAPMENT

Investment Dimension

Factor	Value1	Value2	Value3	Value4	Value5	Mean	sd
CV20	37	149	59	122	106	3.24	1.32
CV26	28	142	137	125	42	3.02	1.08
CV29	27	132	41	176	97	3.39	1.25
CV31	38	189	93	113	39	2.84	1.13

Reliability coefficient for 4 items = .77

Reliability coefficient for 3 items (minus CV29) = .73

Lack of Alternatives Dimension

CA21	101	229	63	57	23	2.31	1.08
CA23	64	238	101	57	14	2.41	.97
CA25	31	166	147	111	18	2.83	.99
CA28	34	182	144	85	20	2.73	.98

Reliability coefficient for 4 items = .85

Reliability coefficient for 3 items (minus CA21) = .85

Emotional Cost Dimension

CE22	38	136	94	150	56	3.11	1.18
CE24	37	90	125	168	54	3.24	1.12
CE27	24	110	110	179	50	3.26	1.08
CE30	26	145	108	148	45	3.09	1.10

Reliability coefficient for 4 items = .88

Reliability coefficient for 3 items (minus CE27) = .84

Overall reliability coefficient for the 12-item measure is .88.

Overall reliability coefficient for the 9-item measure is .84.

 I = Identification dimension, P = Planning dimension,
 R = Resilience dimension, A = Affective, B = Behavioral,
 C = Cognitive, CE = Emotional Costs dimension, CV = Investment dimension, CA = Lack of
 Alternatives dimension

Correlation Matrix

A triangular disclosure matrix for several selected measures/variables is presented in Table 4.24. To assess convergent validity, the MCCM was compared to Blau's (1985, 1988) career commitment measure and to the adapted OCQ. Correspondence between the MCCM and Blau's (1985, 1988) measure was .63 while correspondence between the MCCM and the adapted OCQ was .66 suggesting convergent validity. In contrast, the correlation between the MCCM and the career entrapment measure appeared nearly independent at .02.

Table 4.24
Triangular Disclosure Matrix

Factors	CaC	COCQ	Blau	Trap	CSat	OrgC	Cont	Invl	CWI	JWI	Hour	Educ	Age	Sex	TenF	TenO	Mar	Kin
CaC	1.00																	
COCQ	.66	1.00																
Blau	.63	.80	1.00															
Trap	.02	.18	.22	1.00														
CSat	.56	.65	.62	.14	1.00													
OrgC	.45	.56	.52	.17	.40	1.00												
Cont	-.22	-.15	-.14	.49	-.17	-.03	1.00											
Invl	.41	.51	.49	.34	.34	.49	.09	1.00										
CWI	-.54	-.64	-.73	-.26	-.56	-.43	.05	-.35	1.00									
JWI	-.44	-.52	-.55	-.15	-.47	-.60	-.03	-.34	.63	1.00								
Hour	.15	.14	.08	.14	.16	.13	-.10	.27	-.08	-.04	1.00							
Educ	.18	.08	.16	.10	.17	-.05	-.10	.12	-.17	-.04	.26	1.00						
Age	.15	.21	.22	.20	.17	.26	.05	.16	-.22	-.30	.01	.15	1.00					
Sex	-.03	-.04	.02	.03	.01	-.05	-.03	.07	-.03	-.04	.21	.26	.18	1.00				
TenF	.20	.19	.22	.25	.14	.23	-.02	.21	-.19	-.22	.09	.19	.74	.18	1.00			
TenO	.03	.09	.11	.20	.10	.25	.08	.14	-.07	-.19	-.01	.07	.60	.10	.65	1.00		
Mar	.08	.07	.06	.05	.07	.09	.07	.03	-.06	-.11	.03	.13	.15	.20	.16	.14	1.00	
Kin	.03	.07	.05	.03	.03	.09	.09	-.01	-.05	-.09	-.04	-.16	.05	.02	.02	.08	.62	1.00

|.094| and above, $p \leq .05$

CaC = Career Commitment; COCQ = Career Commitment, adapted OCQ; Blau = Blau's Career Commitment; Trap = Entrapment; CSat = Career Satisfaction; OrgC = Organizational Commitment; Cont = Continuance Commitment to Organization; Invl = Job Involvement; Hours = hours/week; Ed = Education; TenF = Tenure in Career Field; TenO = Tenure in Organization; Mar = Marital Status; Kin = Kinship Responsibility

Factor Solutions and Discriminant Validity

To test the discriminant validity of the MCCM, two confirmatory factor analyses were conducted. The first analysis was based on the prediction that all items of the career commitment measure, organizational commitment measure, and job involvement measure represent a single underlying factor. The second analysis was based on a prediction that items represent the theorized number of factors (cf. Brooke et al., 1988; Mathieu & Farr, 1991).

Because there were several items (29) in the three measures, it was first necessary to reduce the number of

parameters in the model (Bentler & Chou, 1987; Harris, 1991). Following the procedure described by Mathieu and Farr (1991), items for each theoretical dimension were reduced to two indicators. First confirmatory factor analysis was conducted on the measures of interest. Reduction in the number of indicators for each dimension was accomplished by averaging the highest loading item on a dimension with the lowest loading item on a dimension, averaging the next highest loading with the next lowest loading item, and so on until all items of the dimension were assigned to one of two indicators. (Because job involvement has nine items, the fourth combination with this unidimensional measure involved three items rather than two.) After two indicators for each dimension were established, a correlation matrix of the indicators was generated.

Results of the one factor model (assuming that career commitment, organizational commitment, and job involvement represent a single factor) are reported in Table 4.25. The χ^2/df was 84.08. GFI was .652 while AGFI was .454. RMSR was .152. NFI was .475, PNFI was .554, and TLI was .556. Goodness-of-fit indices, thus, indicated a poor fit to the data.

Table 4.25
One Factor Solution

<u>Factor</u>	
Career Identity	
Career Planning	
Career Resilience	
Organizational Commitment	
Job Involvement	
<u>Combined Items</u>	
ID1	.622*
ID2	.648*
PL1	.429*
PL2	.390*
RS1	.286*
RS2	.363*
OA1	.664*
OA2	.704*
JI1	.752*
JI2	.732*

Chi-square = 1325.53; df = 35
GFI = .652; AGFI = .454; RSMR = .152

* = significant, t-values range from 5.9 to 18.1
ID = Identification dimension, PL = Planning dimension,
RS = Resilience dimension, OA = Organizational Affective
Commitment, JI = Job Involvement

In the second analysis (see Table 4.26), it was theorized that the three dimensions of career commitment, the one dimension of affective organizational commitment, and the one dimension of job involvement represent a five factor solution. With the five factor solution, the χ^2/df was 2.61. GFI was .975 while AGFI was .945. RSMR was .031. NFI was .974, PNFI was .812, and TLI was .981. The

χ^2/df , GFI, AGFI, RSMR, NFI, PNFI, and TLI indicated a good fit to the data. Superiority of the second analysis supported the discriminant validity of the MCCM.

Table 4.26
Five Factor Solution

Factors: Identity Plannning Resilience OrganCom JobInvol

Combined
Items

ID1	.793*				
ID2	.807*				
PL1		.869*			
PL2		.760*			
RS1			.860*		
RS2			.896*		
OA1				.847*	
OA2				.980*	
JI1					.917*
JI2					.851*

Chi-square = 65.28 ; df = 25
GFI = .975; AGFI = .945; RSMR = .031

* = significant, t-values range from 14.3 to 22.0
ID = Identification dimension, PL = Planning dimension,
RS = Resilience dimension, OA = Organizational Affective
Commitment, JI = Job Involvement

Univariate Tests for Nomological Validity

To determine the nomological validity of the MCCM, a series of univariate analyses as described by Cohen and Cohen (1983) were conducted to test the significance of differences between dependent variables. These analyses determined if correlations (converted to z-scores using

Cohen & Cohen's formula) between the MCCM and certain job-related variables were significantly different than correlations between organizational commitment or job involvement and these job-related variables (cf. Brooke et al., 1988; Mathieu & Farr, 1991).

Univariate analyses provided support for the nomological validity of the MCCM. Table 4.27 shows that correlations between career commitment and career satisfaction, between career commitment and career entrapment, and between career commitment and continuance organizational commitment were in the expected direction. In addition, the correlations were significantly different than the correlations between organizational commitment or job involvement and these attitudinal measures.

Table 4.27
Relationship between Correlates and Career Commitment - Organizational Commitment/ Career
Commitment - Job Involvement

<u>Correlates</u>	Career Commitment	Organization Commitment	Job Involvement	$p \leq .05$ between career commitment &
Career Satisfaction	.56	.40	.34	organization & job involvement
Career Entrapment	.02	.17	.34	organization & job involvement
ContinuanceCommitment	-.22	-.03	.09	organization & job involvement
Sex	-.03	-.05	.07	job involvement
Age	.15	.26	.16	organization
Hours	.15	.13	.27	job involvement
Education	.18	-.05	.12	organization
Tenure in Career Field	.20	.23	.21	n.s.
Tenure in Organization	.03	.25	.14	organization & job involvement
Job Withdraw Intent	-.44	-.60	-.34	organization & job involvement
Career Withdraw Intent	-.54	-.43	-.35	organization & job involvement

Age was positively correlated with career commitment. As predicted, however, the correlation between age and organizational commitment was significantly greater than the correlation between age and career commitment. As expected, years of education was positively related to career commitment and negatively correlated with organizational commitment. There were no significant differences in the correlations between tenure in the career field and career commitment, tenure in the career

field and organizational commitment, or tenure in the career field and job involvement. However, tenure in the organization was consistent with expectations in that it was significantly correlated with organizational commitment but was not significantly correlated with career commitment.

Finally, career commitment was significantly better than organizational commitment and job involvement in predicting career withdrawal intentions (i.e., the correlation between career commitment and career withdrawal intentions was significantly higher than the correlation between organizational commitment and career withdrawal intentions or the correlation between job involvement and career withdrawal intentions). Organizational commitment was significantly better than career commitment in predicting job withdrawal intentions (i.e., the correlation between organizational commitment and job withdrawal intentions was significantly higher than the correlation between career commitment and job withdrawal intentions or the correlation between job involvement and job withdrawal intentions).

Comparison Among Occupational Groups

Analysis of covariance (ANCOVA) is a technique that can be used for comparing one dependent measure across groups while removing variables that extraneously influence the dependent variable (Hair et al., 1987). For the current dissertation, ANCOVA allowed for determination of whether the MCCM, Blau's (1985, 1989) career commitment measure, or the adapted OCQ was better in predicting career commitment differences among occupationally distinct groups.

Because the demographic variables of age, sex, and marital status have been shown to be related to commitment (e.g., Mathieu & Zajac, 1990), analysis was conducted controlling for these variables across groups. Also, because both Blau's (1985, 1988) measure and the adapted OCQ contain items that are tautological with career withdrawal intentions, the three-item measure (cf. Michaels & Spector, 1982) was added as a covariate.

Groups 1 included assistant, associate, and full professors (D.V.M./Ph.D.) of veterinary medicine at a research institution ($n = 57$); Group 2 included assistant, associate, and full professors at a small teaching college ($n = 49$); Group 3 included librarians in nonsupervisory positions ($n = 65$); and Group 4 included secretaries and clerical workers ($n = 31$). These homogenous groups were

chosen because they represent varying levels of professional characteristics.

Results show that both the MCCM and Blau's (1985) measure detected differences in career commitment among the four groups at a $p \leq .05$ level (see Table 4.28) with the MCCM ($F = 3.30$) being slightly higher than Blau's (1985) measure ($F = 2.98$). The adapted OCQ did not appear to be effective in capturing the varying levels of career commitment among the occupationally distinct groups.

Table 4.28
ANCOVA Results for Career Commitment, Blau's Career Measure, and Adapted OCQ

	Group 1 (Vet Prof)	Group 2 (Teach Prof)	Group 3 (Librar)	Group 4 (Clerical)	
	M	M	M	M	F
Career Commitment	3.87	3.92	3.74	3.43	3.30*
Blau's Measure	3.86	4.02	3.76	3.23	2.98*
Adapted OCQ	3.73	3.86	3.69	3.41	.38

Age, Sex, Marital Status, and Career Withdrawal Intentions as Covariates

* $p \leq .05$

Vet Prof = Veterinary Professors; Teach Prof = Teaching Professors; Librar = Librarians;
Clerical = Secretaries/Clerical Workers

Multivariate analysis of covariance (MANCOVA) is a multivariate statistical technique that controls for Type I error through a linear combination of dependent variables providing a single test of the differences among groups (Hair et al., 1987). As with ANCOVA, this

technique allows for controlling of variables across groups.

Because age, sex and marital status have been shown to be related to work commitments (e.g., Mathieu & Farr, 1991), analysis was again conducted controlling for these variables. Several work commitments were designated as dependent variables. These included career commitment (new measure), career entrapment, career satisfaction, job involvement, affective organizational commitment, and continuance organization commitment. Support for differences among the four groups was provided using MANCOVA ($p \leq .01$).

Discriminant analysis was conducted to assess the contribution of each variable in discriminating among the groups. Only one function was found to be significant. The variables defining this function was career commitment (.62), career satisfaction (.60), and career entrapment (.58). Job involvement, affective organizational commitment and continuance organizational commitment did not contribute to the discrimination.

Based on the group centroids shown in Table 4.29, professors of veterinary medicine (Group 1) and the teaching faculty (Group 2) are significantly higher on a linear combination of career commitment, career satisfaction, and career entrapment than librarians (Group 3). Secretaries and clerical workers (Group 4) are lowest

on a linear combination of these variables. (Respective means for career commitment, career satisfaction, and career entrapment were 3.87, and 4.32, and 3.06 for Group 1; 3.92, 4.28, and 3.20 for Group 2; 3.73, 4.21, and 2.92 for Group 3; and 3.42, 3.83, and 2.66 for Group 4.)

Thus, career measures developed in this current dissertation (career commitment, career satisfaction, and career entrapment) discriminated among occupational groups with varying levels of professional characteristics. However, other work commitments (affective organizational commitment, continuance commitment, and job involvement) did not discriminate among the groups.

Table 4.29
Results of Four-Group Discriminant Analysis

<u>Functions</u>	<u>Eigenvalues</u>	<u>% of Variance</u>	<u>Canonical Correlation</u>	<u>Chi Square</u>	<u>df</u>	<u>Significance</u>
I	.29	81.4	.474	64.4	18	.01*
II	.05	14.8	.223	13.1	10	.22
III	.01	3.9	.117	2.8	4	.60

Group Centroids

	<u>FUNC 1</u>	<u>FUNC 2</u>	<u>FUNC 3</u>
Group 1 (Vet Prof)	.30	.21	-.35
Group 2 (Teach Prof)	.28	.38	.06
Group 3 (Librarian)	.01	-.31	.01
Group 4 (Clerical)	-.94	-.27	.50

Table 4.29 (continued)

<u>Variables</u>	<u>Rotated Correlations</u>		
	<u>FUNC 1</u>	<u>FUNC 2</u>	<u>FUNC 3</u>
Career Commitment	.62		
Career Satisfaction	.60		
Career Entrapment	.58		
Job Involvement		.85	
Organizational Commitment			.64
Continuance Commitment			.62

Selected Items for the Short-Form Measures

The new 12-item MCCM displayed satisfactory reliability. The field study results also indicated better construct validity for the MCCM than other career commitment measures examined in the current dissertation. Thus, this new measure may represent an important contribution to career commitment research.

In addition to the MCCM, a nine-item measure was developed to gauge a new construct, career entrapment. This career entrapment measure also exhibited satisfactory reliability and appeared to be relatively independent of the MCCM. Final items for the career commitment measure and career entrapment measure are shown in Table 4.30.

Table 4.30
Selected Items for the Short Version of the Measures

I. Career Commitment

IC My line of work/career field is an important part of who I am.

PC I do not have a strategy for achieving my goals in this line of work/career field. (Reverse Scored; adapted from Gould, 1979)

RC The costs associated with my line of work/career field sometimes seem too great. (Reverse Scored)

IA This line of work/career field has a great deal of personal meaning to me (adapted from Meyer & Allen, 1984).

PB I have created a plan for my development in this line of work/career field

RC Given the problems I encounter in this line of work/career field, I sometimes wonder if I get enough out of it. (Reverse Scored)

PB I do not identify specific goals for my development in this line of work/career field. (Reverse Scored)

IA I do not feel "emotionally attached" to this line of work/career field. (Reverse Scored; adapted from Meyer & Allen, 1984)

RC Given the problems in this line of work/career field, I sometimes wonder if the personal burden is worth it. (Reverse Scored)

RA The discomforts associated with my line of work/career field sometimes seem too great. (Reverse Scored)

PC I do not often think about my personal development in this line of work/career field. (Reverse Scored)

IC I strongly identify with my chosen line of work/career field. (adapted from Gould, 1979)

I = Identification dimension, P = Planning dimension,
R = Resilience dimension, A = Affective, B = Behavioral,
C = Cognitive.

Table 4.30 (continued)

II. Career Entrapment

CV I have too much time invested in my line of work/career field to change.

CE There would be a great emotional price involved in changing my line of work/career field.

CA Given my experience and background, there are attractive alternatives available to me in other lines of work/career fields. (Reverse Scored)

CE Changing my line of work/career field would be easy from an emotional standpoint. (Reverse Scored)

CA I would have many options if I decided to change my line of work/career field. (Reverse Scored)

CV It would be very costly for me to switch my line of work/career field.

CA I am pleased that I have many alternatives available for changing my line of work/career field. (Reverse Scored)

CE It would be emotionally difficult to change my line of work/career field.

CV I have too much money invested in my line of work/career field to change at this time.

--

CE = Emotional Costs dimension, CV = Investment dimension,
CA = Lack of alternatives dimension

CHAPTER 5

Discussion

Chapter Five begins with a review of the psychometric properties and validity of the MCCM. Next, the contribution of the new career commitment measure is presented. The distinction between career commitment and career entrapment is discussed, and outcomes associated with different type of commitments are proposed. The chapter ends with a discussion of the current dissertation's limitations.

The New Career Commitment Measure

A primary objective of the dissertation was to develop a new measure of career commitment with three theoretical dimensions: (a) career identification, a close emotional association with one's career; (b) career planning, determining one's developmental needs and establishing a career plan; and (c) career resilience, resisting career disruption in the face of adversity (cf. London, 1983). Developing the measure involved several steps culminating with a field study of 476 employees.

Psychometric Properties

Four items representing each of the three theoretical dimensions of career commitment were analyzed in the field study. Maximum likelihood estimates for the 12 items ranged from .535 to .870 with all estimates significant. Goodness-of-fit indices indicated a satisfactory fit to the data. Overall reliability for the 12-item measure was .81.

Validity

In addition to examining psychometric properties, construct validity of the MCCM was evaluated. Construct validity of the new career commitment measure consists of three subtypes: (a) convergent validity, correspondence among the new and previously published career commitment measures; (b) discriminant validity, tapping of different constructs by the MCCM and other work commitment measures; and (c) nomological validity, linkages of the MCCM with theoretically appropriate variables (Campbell & Fiske, 1959; Green et al., 1988; Schwab, 1980).

Results show that the MCCM displayed adequate construct validity. High positive correlations between the MCCM and Blau's (1985) measure and between the MCCM and the adapted OCQ suggest convergent validity. Also, the MCCM was examined with other work commitment measures using confirmatory factor analysis. Results suggest that

the measures tap different constructs, thus supporting discriminant validity. Further, correlations between career commitment and many demographic and job-related attitudinal measures were in expected directions.

Univariate analyses show that correlations between the MCCM and the variables of interest were significantly different than the correlations between organizational commitment or job involvement and these variables. Thus, nomological validity of the MCCM was supported.

Because groups higher in professional characteristics exhibit higher career commitment than groups lower in professional characteristics (Blau, 1985; Hall, 1968), external validity of a career commitment measure was also assessed. ANCOVA results indicate that the MCCM detected appropriate differences in levels of career commitment among occupational groups. Further, MANCOVA and discriminant analysis show that career focus measures (i.e., career commitment, career satisfaction, and career entrapment) discriminated between occupational groups while other work commitments (i.e., affective organizational commitment, continuance organizational commitment, and job involvement) did not. Based on these results, the MCCM displayed adequate external validity. Thus, the MCCM may be a sound instrument for tapping the increasingly important concept of career commitment.

Contribution of the New Career Commitment Measure

Because of mergers, acquisitions, and layoffs (Schermerhorn et al., 1988), employees cannot always depend on their organizations for security (Ivancevich, Schweiger, & Power, 1987). Thus, more highly educated workers are becoming more committed to their own careers for occupational stability (Colarelli and Bishop, 1990). Despite the increasing importance of career commitment, this area of research continues to lag developmentally because of the lack of an established measure (Morrow & Wirth, 1989).

Blau's (1985) measure comes closer to representing the career commitment domain than other measures (e.g., Greenhaus, 1971), but it has numerous problems. For example, rather than theoretically developing the measure, Blau (1985) merely borrowed items from other instruments (Price & Mueller, 1981; Downing et al., 1978; Liden & Green, 1980), lessening the assurance that the instrument possesses adequate content validity (Nunnally, 1978). Because his atheoretical operationalization of career commitment is unidimensional rather than the multidimensional operationalization as proposed by London (1983), it is unlikely that Blau's (1985) measure captures adequate variance in the career commitment construct.

In addition to the measure's lack of a theoretical

base, items in Blau's (1985) measure overlap with intent-to-stay items (cf. Michaels & Spector, 1983). Since many of Blau's (1985) items gauge remaining in one's vocation (Liden & Green, 1980), it is not surprising that his measure is highly correlated with career withdrawal cognitions.

To examine construct overlap, Blau's (1988, 1989) seven career commitment measure items were factor analyzed with three items tapping career withdrawal intentions. As expected, all three career withdrawal intentions items loaded on the same factor as Blau's (1985) seven career commitment items. In contrast, the three career withdrawal items did not load on the theoretical dimensions of the MCCM. Rather, the career withdrawal items loaded cleanly on their own factor. Thus, the MCCM displayed better construct validity than Blau's (1985) measure.

Construct validity, external validity, and sound psychometric properties of the MCCM support its potential contribution for management researchers interested in work commitments. Validity of the MCCM can be refined by examining the concept of career entrapment, a construct parallel to continuance commitment (Meyer & Allen, 1984) in the organizational domain.

Organizational and Career Commitment Domains

This section begins with a discussion of interrelationships between the organizational commitment and career commitment domains. Next, the need for a career entrapment measure is proposed and, finally, its development is presented.

Types of Commitment

Gouldner (1957), one of the original career commitment researchers, indicates that there two types of workers: (a) "cosmopolitans" who are committed to their professional group and (b) "locals" who are committed to their employing organization. Gouldner (1957, 1958) suggests that professional commitment and organizational commitment are incompatible, i.e., an employee is either aligned with a profession or with an organization. While there is limited support for the "incompatibility hypothesis" (e.g., Sorenson & Sorenson, 1974), many researchers report a positive relationship between professional commitment and organizational commitment (e.g., Bartol, 1979; Hrebiniak & Alutto, 1972; Norris & Niebuhr, 1983). Based on the positive correlation between professional commitment and organizational commitment, the relationship appears neither antithetical nor independent. There are, however, two types of organizational commitment

that appear to be independent.

One group of researchers defines organizational commitment along psychological dimensions, describing organizational commitment as involvement and attachment to one's organization (e.g., Buchanan, 1974; Mowday et al., 1979). Another group of researchers approaches organizational commitment from a calculative perspective where employees are viewed as becoming attached to an organization for extrinsic rewards (Hrebiniak & Alutto, 1972; Stevens, Beyer, & Trice, 1978). Thus, organizational commitment can be defined from a psychological (affective) viewpoint, or an economic (continuance) viewpoint. When properly measured, these two types of commitment (affective organizational commitment and continuance organizational commitment) appear to be independent constructs (Meyer & Allen, 1984).

Continuance commitment results from investments that would be lost if one leaves an organization (Rusbult & Farrell, 1983). With increasing organizational tenure, an employee becomes trapped as it becomes more and more costly to leave one organization for another (Rusbult & Farrell, 1983). Thus, continuance commitment represents more of an entrapment than an attachment. To add to the entrapment, employees often perceive their skills as organizationally specific and, thus, less valuable to other organizations (Scholl, 1981).

Just as employees become entrapped in their organizations, individuals can become entrapped in careers because of large personal investments and perceived lack of alternatives (cf. Becker, 1960). However, no appropriate measures are available in the career commitment domain to gauge continuance career commitment. All existing measures, including the MCCM, tap career identity and involvement issues and, thus, measures affective career commitment. To fill this void, as well as to assist in the establishment of discriminant validity of the MCCM, a career entrapment measure was developed in the current dissertation.

Career Entrapment Measure

Development of the career entrapment measure followed a procedure similar to the development of the MCCM. First, three theoretical dimensions of career entrapment were defined: (a) career investments, sacrifices associated with leaving one's career; (b) emotional cost, affective trauma connected with leaving one's career; (c) lack of career opportunities, few alternatives in choosing another career. Items tapping these dimensions were generated and were examined for content validity. Following this, psychometric properties were analyzed in the two pilot studies. Finally, the measure's construct validity was examined. Results of the field study suggest

that the career entrapment measure possesses satisfactory discriminant validity including relative independence from affective career commitment measures.

Independence of career commitment and career entrapment as well as independence of affective organizational commitment and continuance organizational commitment point to more complicated relationships among the career and organizational commitment domains than originally postulated by Gouldner (1957, 1958). Rather than career commitment being merely incompatible with organizational commitment, several different relationships are possible among the four variables. For example, a professor at a teaching college may score high on career entrapment, career commitment, affective organizational commitment, and continuance organizational commitment. However, a professor at a research institution may score high on career commitment but score low on career entrapment, affective organizational commitment, and continuance organizational commitment.

Career and Organizational Domain Outcomes

Numerous job-related outcomes are suggested for employees with varying levels of career commitment, career entrapment, affective organizational commitment, and

continuance organizational commitment. Thus, the MCCM and the career entrapment measure along with organizational commitment measures provide increased research opportunities for management researchers. Areas of potential research activity are discussed in the following subsections.

Performance and Turnover

Depending upon the type and level of commitment, different job-related outcomes are expected for employees. For example, Meyer and his colleagues report that employees with high affective organizational commitment rank high on performance while employees with high continuance organizational commitment rank low on performance (Meyer, Paunonen, Gellatly, Goffin, & Jackson, 1989). Similarly, one could hypothesize that those affectively committed to their careers would exhibit higher performance than those entrapped in their careers. The best performers, then, would hypothetically exhibit both high career commitment and high affective organizational commitment.

Organizations seek to avoid turnover of productive employees because of decreased effectiveness and costs associated with employee replacement (Dalton, Krackhardt, & Porter, 1981; Dalton, Todor, & Krackhardt, 1982). Thus, it is in the best interest of an organization to retain

the higher performers. Fortunately, those exhibiting high affective organizational commitment are less prone to turnover than those exhibiting low affective organizational commitment (Steers & Mowday, 1981). However, those exhibiting high career commitment are externally focused (Gouldner, 1957, 1958) and, one might predict, more likely to learn about positions in other organizations.

Turnover, however, is not necessarily negative. If a poor performer leaves an organization, this can be viewed as a convenient substitute for termination (Abelson & Baysinger, 1984). Thus, it may be dysfunctional for the organization to keep employees who are high on only continuance organizational commitment as they may be low performers (Meyer et al., 1989). However, employees who are high on continuance commitment are, by definition, entrapped in an organization. Similarly, it may be dysfunctional to retain employees high on career entrapment since hypothetically, they may be low performers as well. Unfortunately, employees high on career entrapment and continuance organizational commitment are predicted to be the least likely to voluntarily leave an organization.

Career Satisfaction

In addition to productivity and turnover outcomes, there are important affective variables which require further research activity. One of these variables is career satisfaction. Just as affective organizational commitment and job satisfaction are distinct constructs (Brooke et al., 1988; Mathieu & Farr, 1991), it seems likely career commitment and career satisfaction are distinct constructs. A short-term, positive emotional state differentiates job satisfaction from affective organizational commitment, a long-term attitude (Brooke et al., 1988). The distinction between career satisfaction and career commitment also reflects different time frames. Career satisfaction can be defined as a short-term, positive affective state reflecting enjoyment and interest while career commitment can be defined as a long-term attitude involving identification, planning, and resilience.

Despite the distinctive nature of career satisfaction, no well-established measure exists to tap this construct (cf. Greenhaus, et al., 1990; Romzek, 1989; Schneer & Reitman, 1990). Thus, a five-item unidimensional career satisfaction measure was adapted from Brayfield and Rothe's (1951) job satisfaction questionnaire.

To examine the discriminant validity of the MCCM and career satisfaction measure, principal component analysis was conducted. The five adapted career satisfaction items were factor analyzed with the MCCM. Consistent with theoretical predictions, career satisfaction items loaded cleanly on their own factor. Similarly, when Blau's (1985) seven career commitment items were factor analyzed with the adapted items, the career satisfaction items again loaded cleanly on their own factor. The correlation between the MCCM and career satisfaction was at the .50 level, the same level as job satisfaction and organizational commitment (Brooke et al., 1988).

Whether career commitment leads to career satisfaction or whether career satisfaction leads to career commitment are questions that have not been asked by management researchers. In the organizational commitment research domain, an ongoing debate exists about the causal ordering of organizational commitment and job satisfaction (cf. Bateman & Strasser, 1984; Curry, Wakefield, Price, & Mueller, 1986; Farkas & Tetrick, 1989; William & Hazer, 1986). A similar debate is warranted for career commitment and career satisfaction. Further, organizational literature can again be drawn upon for development of a new construct in the career literature. This construct is labelled career citizenship behavior.

Career Citizenship Behavior

In the organizational domain, Organ (1988) developed a construct labeled organizational citizenship behavior. Organizational citizenship behavior refers to employees' actions which voluntarily promote organizational effectiveness without regard for direct rewards. Components making up organizational citizenship behavior are conscientiousness, courtesy, sportsmanship, and altruistic behaviors.

Parallel to the organizational citizenship behavior is career citizenship behavior, a proposed construct of potential importance to management researchers. Career citizenship behavior can be defined as engaging in behaviors that are helpful to one's field, but for which there are no direct rewards. An example of an important career citizenship behavior is mentoring. Typically, mentors serve outside the formal reward structures while promoting the careers of their proteges (Kram, 1983).

Besides mentoring, there are numerous other career citizenship behaviors. In an academic setting, professors engage in many activities of this nature. Hunt and Blair (1987) called these behaviors "process activities" defined as "those activities in which an individual or group of individuals facilitates (or provides a process for) the acquisition or generation of new scholarly knowledge or facilitates the professional activities of those involved

in such knowledge acquisition or generation" (p. 193). Examples of career citizenship behaviors for academics include serving as a reviewer, discussant, or session chair for conferences, serving on a membership committee, editing an association newsletter, or handling advertising for a conference.

As previously suggested, those highly committed to their careers may focus on direct performance. However, it is predicted that career entrapment may encourage individuals to engage in career citizenship behavior (such as mentoring and process activities) which serve to promote continuation of the profession or career field. Further, it is hypothesized that individuals who are both affectively committed to and entrapped in their careers exhibit both high performance and career citizenship behaviors.

Relationship with Driver's (1979) Career Prototypes

Finally, career researchers may want to consider the integration of the career commitment and organizational commitment domains with Driver's (1979) theory of career prototypes. As noted previously, Driver (1979) suggests that there are four stable career concepts that individuals hold: (a) steady state, (b) linear, (c) spiral, and (d) transitory.

A steady state career concept refers to an individual

who remains in an occupation while maintaining necessary skills. The theme characterizing a steady state prototype is stability in a career field (Van Maanen & Schein, 1977). Career stability suggests that these individuals would score high on both career commitment and career entrapment.

Those with a linear career concept are long-term achievers who move upward through the ranks of an organization and/or a career. The theme characterizing a linear prototype is advancement (Hall, 1976; Van Maanen & Schein, 1977). Those advancing up the organization are likely to exhibit high affective organizational commitment while those advancing up the career ladder are likely to exhibit high career commitment. With increasing time in an organization and/or a career, it is hypothesized that these individuals would become entrapped through personal investments.

A spiral career concept refers to an individual who is motivated by self-growth. These individuals make a career move every 5 or 10 years. While an individual with a spiral career pattern may score high on identification and involvement early in a career cycle, they lack career resilience since they often change vocations in search of self-development. The periodic career changes suggest that these individuals would score low on both career entrapment and continuance organizational commitment.

Individuals with a transitory career concept frequently change positions, usually in a lateral direction. It seems contradictory to suggest that those with a transitory career concept might exhibit high career commitment since continuity (Quadagno, 1978) and career resilience (London, 1983) are necessary factors in career commitment. Because of their frequent changes, it is hypothesized that individuals with transitory career patterns would score low on career commitment, career entrapment, affective organizational commitment, and continuance organizational commitment.

In summary, there are numerous areas for research activity when examining the career commitment and organizational commitment domains together. New career commitment, career entrapment, and career satisfaction measures should facilitate research in these areas. However, certain limitations in developing these measures need to be considered by management researchers.

Study Limitations

Common method variance, restrictions in response range, and generalizability of findings are potential limitations of the current dissertation.

Common Method Variance

Common method variance refers to a potential bias when only one data collection method is used. Variance reported by a researcher using a mono-method approach may be due to the measurement method rather than the variables of interest (Campbell & Fiske, 1959; Cook & Campbell, 1979). This problem is frequently identified by organizational researchers when a survey data collection method is used (Mitchell, 1985). Since only the survey method was used in the current dissertation, common method variance is a potential problem.

Fortunately, several aspects of the current dissertation lessen the common method problem. First, none of the career commitment items nor the career entrapment items were highly correlated with social desirability (Crowne & Marlowe, 1960, 1964), a predominant source of common method variance (Spector, 1987). Second, both positive and negative item statements were used in the measures. Use of positive and negative items varies the presentation to respondents, thus reducing mono-method bias. Third, some respondents received their surveys at work while others received their surveys at home. Varied contexts for survey completion further reduces common method variance (Mitchell, 1985). Fourth, a different format was used in the final section of the surveys, thereby reducing the potential threat of mono-method bias

(Cook & Campbell, 1979; Mitchell, 1985).

In addition to these arguments, results of the confirmatory factor analysis of a single factor model (examining career commitment, organizational commitment, and job involvement) suggest that common method variance is not a salient problem. The single factor model displayed a poor fit to the data. Since this single factor model can represent common method variance (Hogan & Martell, 1987), the lack of fit suggests that mono-method bias is not a serious issue. Lack of evidence for mono-method bias is in line with Spector's (1987) assertion that properly developed measures "are resistant to the method variance problem" (p. 438).

Response Range Restriction

Another limitation of the current dissertation is the slight restriction in response range for the MCCM. The restriction in standard deviations may be sample specific in that most respondents were highly educated and, thus, more committed to their careers than those less well educated. That is, those involved in a long socialization process during their training are more likely to identify with their careers than those engaged in little or no training and socialization (Hall, 1968).

Range restriction does not, however, appear to represent a major problem. All response categories, on a

five-point scale ranging from "strongly disagree" to "strongly agree," were used for all items. Further, the range problem did not substantially lower reliabilities. Range restriction may have attenuated some construct effects (Crocker & Algina, 1986). However, numerous significant findings in the field study suggest that attenuation was not a major issue.

Generalizability of the New Measure

An attempt was made in the field study to survey employees with varying levels of professional characteristics at all organizational levels. Unfortunately, response rates of lower level, less professional employees were quite low. Thus, generalizability of the MCCM to less professional occupational groups remains to be determined.

In addition to surveying less educated workers, organizational settings also need to be varied. Most respondents in the present study worked in university settings. To extend the generalizability of the measure, employees in other settings, such as military bases and manufacturing plants, need to be surveyed. Generalizability can also be extended by varying geographical regions (Cook & Campbell, 1979). In addition, employees of different age groups as well as employees with atypical work arrangements, such part-time

workers and moonlighters (Feldman, 1990), should be included in future research.

Conclusion

Despite the limitations raised above, the MCCM appears to be both a psychometrically sound and useful measure for advancing research in the career commitment domain. Also, the nomological network surrounding career commitment may be expanded by future attention to the measures of career entrapment and career satisfaction developed to assess the discriminant validity of the MCCM. Through the use of these measures, understanding of the outcomes associated with the career commitment domain may be increased.

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APPENDIX A

CAREER QUESTIONNAIRE

Louisiana State University
Department of Management

Kerry D. Carson
Doctoral Candidate
Department of Management
Louisiana State University

CAREER QUESTIONNAIRE

This questionnaire includes statements about your line of work or career field in which you are currently employed. You may consider line of work/career field as having the same meaning as occupation, profession, or vocation. All responses are treated confidentially. In no instance will an individual be identified as having provided a particular response.

For each statement below, decide which response best indicates your attitude or position - how much you agree or disagree with the statement. Place the number of the response on the line at the left of the statement.

1 Strongly Agree 2 Agree 3 Uncertain 4 Disagree 5 Strongly Disagree

_____ Because of the problems in this line of work/career field, I now exert less effort than I once did.

_____ I strongly identify with my chosen line of work/career field.

_____ I feel that it is useful to spend time planning for my future development in this line of work/career field.

_____ The benefits of this line of work/career field outweigh its costs.

_____ I readily learn new techniques and procedures associated with my line of work/career field.

_____ The discomforts associated with my line of work/career field sometimes seem too great.

_____ This line of work/career field has a great deal of personal meaning to me.

_____ Given the problems in this line of work/career field, I sometimes wonder if the personal burden is worth it.

_____ I do not have a strategy for achieving my goals in this line of work/career field.

_____ My line of work/career field is an important part of who I am.

_____ Though my line of work/career field has its difficulties, I continue to try hard.

_____ When I initially meet others, I usually don't tell them my line of work/career field.

_____ Given the problems I encounter in this line of work/career field, I sometimes wonder if I get enough out of it.

_____ I get a sense of pride from my line of work/career field.

_____ I am constantly trying to improve the skills I need for success in my line of work/career field.

_____ I know what I need to do to reach my goals in this line of work/career field.

_____ Despite its problems, I believe that I chose the right line of work/career field.

_____ In social settings, I rarely discuss my line of work/career field.

_____ Sometimes I wish I had chosen a different line of work/ career field.

_____ I do not identify specific goals for my development in this line of work/career field.

_____ I do not enjoy planning for personal development in my line of work/career field.

_____ I do not feel "emotionally attached" to this line of work/career field.

_____ I believe that the line of work/career field I chose is the right one for me.

_____ I feel that the importance of planning for my line of work/career field cannot be overemphasized.

_____ I have created a plan for my development in this line of work/career field.

_____ The costs associated with my line of work/career field sometimes seem too great.

_____ Because of difficulties in my line of work/career field, I no longer try as hard as I once did.

_____ I often discuss my line of work/career field with people outside of it.

_____ I do not often think about personal development in my line of work/career field.

_____ My line of work/career field has its ups and downs, but overall I feel that its benefits outweigh its costs.

_____ Planning for and succeeding in my line of work/career field is important.

_____ I do not feel a strong sense of belonging in this line of work/career field.

_____ I frequently tell people about how great my line of work/career field is.

_____ I will continue to work hard in my line of work/career field despite its problem areas.

_____ I feel irresponsible if I do not keep up with the developments in my line of work/career field.

_____ Problems encountered in my line of work/career field sometimes serve to strengthen my dedication.

_____ If I left this line of work/career field, I would feel like I had no reasonable options.

_____ Changing my line of work/career field would be easy from an emotional standpoint.

_____ Leaving my line of work/career field would cause little emotional trauma in my life.

_____ I am pleased that I have many alternatives available for changing my line of work/career field.

_____ Leaving my current line of work/career field would cause few disruptions in my life.

_____ I would need little educational retraining to enter into another line of work/career field comparable to this one.

_____ I would have many options if I decided to change my line of work/career field.

_____ Changing my line of work/career field would require little personal sacrifice.

_____ I believe that it would be difficult to find a satisfactory alternative line of work/career field.

____ Since I have very little invested in my line of work/career field, I could easily make a change.

____ If I left my present line of work/career field, I would experience a substantial financial loss.

____ The only reason I stay in this line of work/career field is because there are few alternatives that are better.

____ A line of work/career field change would require an emotional cost that I am not willing to make.

____ Changing my line of work/career field would be disruptive to people close to me.

____ It is frustrating to me that this is the only line of work/career field that is right for my abilities.

____ It would be emotionally difficult to change my line of work/career field.

____ It would be very costly for me to switch my line of work/career field.

____ I would enjoy changing my line of work/career field since I have so little invested.

____ Given my experience and background, there are attractive alternatives available to me in other lines of work/career fields.

____ There would be a great emotional price involved in changing my line of work/career field.

____ For me to enter another line of work/career field would mean giving up a substantial investment in training.

____ I could easily switch my line of work/career field.

____ I have too much time invested in my line of work/career field to change.

____ I have too much money invested in my line of work/career field to change at this time.

Listed below are a number of statements concerning personal attitudes and traits. Read each item and decide whether the statement is true (T) or false (F) as it pertains to you personally.

Place T for true or F for false on the line at the left of the statement.

_____ Before voting I thoroughly investigate the qualifications of all the candidates.

_____ I never hesitate to go out of my way to help someone in trouble.

_____ It is sometimes hard for me to go on with my work if I am not encouraged.

_____ I have never intensely disliked anyone.

_____ On occasion I have had doubts about my ability to succeed in life.

_____ I sometimes feel resentful when I don't get my way.

_____ I am always careful about my manner of dress.

_____ My table manners at home are as good as when I eat out in a restaurant.

_____ If I could get into a movie without paying and be sure I was not seen, I would probably do it.

_____ On a few occasions, I have given up doing something because I thought too little of my ability.

_____ I like to gossip at times.

_____ There have been times when I felt like rebelling against people in authority even though I knew they were right.

_____ No matter who I'm talking to, I'm always a good listener.

_____ I can remember "playing sick" to get out of something.

_____ There have been occasions when I took advantage of someone.

_____ I'm always willing to admit it when I make a mistake.

_____ I always try to practice what I preach.

_____ I don't find it particularly difficult to get along with loud mouthed, obnoxious people.

_____ I sometimes try to get even rather than forgive and forget.

_____ When I don't know something, I don't at all mind admitting it.

_____ I am always courteous, even to people who are disagreeable.

_____ At times I have really insisted on having things my own way.

_____ There have been occasions when I felt like smashing things.

_____ I would never think of letting someone else be punished for my wrong-doings.

_____ I never resent being asked to return a favor.

_____ I have never been irked when people expressed ideas very different from my own.

_____ I never make a long trip without checking the safety of my car.

_____ There have been times when I was quite jealous of the good fortune of others.

_____ I have almost never felt the urge to tell someone off.

_____ I am sometimes irritated by people who ask favors of me.

_____ I have never felt that I was punished without cause.

_____ I sometimes think when people have a misfortune they only got what they deserved.

_____ I have never deliberately said something that hurt someone's feelings.

Please answer the following questions:

1. I am currently employed in my line of work/career field approximately _____ hours per week.

2. The title of my position at work is _____

THANK YOU FOR YOUR COOPERATION!

APPENDIX B
CAREER AND ORGANIZATION SURVEY

Louisiana State University
Department of Management

Kerry D. Carson
Doctoral Candidate
Department of Management
Louisiana State University

Section A

This survey begins with statements about your **LINE OF WORK** or **CAREER FIELD** in which you are currently employed. You may consider line of work/career field as having the same meaning as occupation, profession, or vocation. All responses are treated confidentially. In no instance will an individual be identified as having provided a particular response.

For each statement below, decide which response best indicates your attitude or position - how much you agree or disagree with the statement. Place the number of the response on the line at the left.

1 Strongly Agree 2 Agree 3 Uncertain 4 Disagree 5 Strongly Disagree

_____ My line of work/career field is an important part of who I am.

_____ Though my line of work/career field has its difficulties, I continue to try hard.

_____ I do not have a strategy for achieving my goals in this line of work/career field.

_____ The costs associated with my line of work/career field sometimes seem too great.

_____ I do not often think about my personal development in this line of work/career field.

_____ The benefits of this line of work/career field outweigh its costs.

_____ I would definitely advise an interested friend or relative to enter this line of work/career field.

_____ I do not identify specific goals for my development in this line of work/career field.

_____ If I were offered higher pay in another line of work/career field, I would definitely take it.

_____ I have created a plan for my development in this line of work/career field.

_____ I am constantly trying to improve the skills I need for success in my line of work/career field.

_____ I readily learn new techniques and procedures associated with my line of work/career field.

_____ Compared to others in my line of work/career field, I exert a great deal of effort.

_____ This line of work/career field has a great deal of personal meaning to me.

_____ I frequently tell people about how great my line of work/career field is.

_____ I will continue to work hard in my line of work/career field despite its problem areas.

_____ I do not feel "emotionally attached" to this line of work/career field.

_____ I have a strategy for keeping up with changes in my line of work/career field.

_____ Given the problems I encounter in this line of work/career field, I sometimes wonder if I get enough out of it.

_____ It is nice being in this line of work/career field because there are so few disadvantages.

_____ I do not feel a strong sense of belonging in this line of work/career field.

_____ The discomforts associated with my line of work/career field sometimes seem too great.

_____ I feel irresponsible if I do not keep up with the developments in my line of work/career field.

_____ I keep up with new developments in my line of work/career field.

_____ Given the problems in this line of work/career field, I sometimes wonder if the personal burden is worth it.

_____ I strongly identify with my chosen line of work/career field.

_____ It is not worth it to try hard in my line of work/career field.

_____ I have too much time invested in my line of work/career field to change.

_____ There would be a great emotional price involved in changing my line of work/career field.

_____ Given my experience and background, there are attractive alternatives available to me in other lines of work/career fields.

_____ Changing my line of work/career field would be easy from an emotional standpoint.

_____ I would have few attractive alternatives if I decided to change my line of work/career field.

_____ It would be emotionally difficult to change my line of work/career field.

_____ For me to enter another line of work/career field would mean giving up a substantial investment in training.

_____ It would be very costly for me to switch my line of work/career field.

_____ Leaving my line of work/career field would cause little emotional trauma in my life.

_____ I would enjoy changing my line of work/career field since I have so little invested.

_____ A line of work/career field change would require an emotional cost that I am not willing to make.

_____ I am pleased that I have many alternatives available for changing my line of work/career field.

_____ If I left this line of work/career field, I would feel like I had no reasonable options.

_____ I have too much money invested in my line of work/career field to change at this time.

_____ I would have many options if I decided to change my line of work/career field.

Section B

Listed below are a series of statements that represent possible feelings that individuals might have about the **ORGANIZATION** or **COMPANY** for which they work. With respect to your own feelings about the particular organization/company for which you are now working, please indicate the degree of your agreement or disagreement with each statement.

1 Strongly Agree 2 Agree 3 Uncertain 4 Disagree 5 Strongly Disagree

_____ I do not feel a strong sense of belonging to my organization/company.

_____ I do not feel "emotionally attached" to this organization/company.

_____ This organization/company has a great deal of personal meaning for me.

_____ I do not feel like "part of the family" at this organization/company.

_____ I would be very happy to spend the rest of my career with this organization/company.

_____ I enjoy discussing my organization/company with people outside of it.

_____ I really feel as if this organization's/company's problems are my own.

_____ I think I could easily become as attached to another organization/company as I am to this one.

_____ Right now, staying with my organization/company is a matter of necessity as much as desire.

_____ One of the major reasons I continue to work for this organization/company is that leaving would require considerable personal sacrifice - another organization/company may not match the overall benefits I have.

_____ I feel I have too few options to consider leaving this organization/company.

_____ Changing organizations/companies would be easy from an emotional standpoint.

_____ One of the few negative consequences of leaving this organization/company would be the scarcity of available alternatives.

_____ It would be very hard for me to leave my organization/company right now, even if I wanted to.

_____ Leaving this organization/company would cause little emotional trauma in my life.

_____ Changing organizations/companies would require an emotional cost that I am not willing to make.

_____ Too much in my life would be disrupted if I decided I wanted to leave my organization/company now.

_____ It would be emotionally difficult to change organizations/companies.

_____ It wouldn't be too costly for me to leave my organization/company in the near future.

_____ There would be a great emotional price involved in changing organizations/companies.

_____ I am not afraid of what might happen if I quit my job without having another one lined up.

Section C

Please answer the following questions:

1. I am currently employed approximately _____ hours per week.

2. The title of my position is _____.

THANK YOU FOR YOUR COOPERATION!

APPENDIX C

CAREER, ORGANIZATION, AND JOB SURVEY

Louisiana State University
Department of Management

Kerry D. Carson
Doctoral Candidate
Department of Management
Louisiana State University

Section A

This survey begins with statements about your **LINE OF WORK** or **CAREER FIELD** in which you are currently employed. You may consider line of work/career field as having the same meaning as occupation, profession, or vocation.

For each statement below, decide which response best indicates your attitude or position - how much you agree or disagree with the statement. Place the number of the response on the line at the left.

1 Strongly Disagree 2 Disagree 3 Uncertain 4 Agree 5 Strongly Agree

_____ My line of work/career field is an important part of who I am.

_____ It is nice being in this line of work/career field because there are so few disadvantages.

_____ I do not have a strategy for achieving my goals in this line of work/career field.

_____ The costs associated with my line of work/career field sometimes seem too great.

_____ This line of work/career field has a great deal of personal meaning to me.

_____ I have created a plan for my development in this line of work/career field.

_____ Given the problems I encounter in this line of work/career field, I sometimes wonder if I get enough out of it.

_____ I do not identify specific goals for my development in this line of work/career field.

_____ I do not feel "emotionally attached" to this line of work/career field.

_____ Given the problems in this line of work/career field, I sometimes wonder if the personal burden is worth it.

_____ I do not feel a strong sense of belonging in this line of work/career field.

_____ I have a strategy for keeping up with changes in my line of work/career field.

_____ The discomforts associated with my line of work/career field sometimes seem too great.

_____ I do not often think about my personal development in this line of work/career field.

_____ I strongly identify with my chosen line of work/career field.

_____ I have too much time invested in my line of work/career field to change.

_____ If I left this line of work/career field, I would feel like I had no reasonable options.

_____ There would be a great emotional price involved in changing my line of work/career field.

_____ Given my experience and background, there are attractive alternatives available to me in other lines of work/career fields.

_____ Changing my line of work/career field would be easy from an emotional standpoint.

_____ I would have many options if I decided to change my line of work/career field.

_____ It would be very costly for me to switch my line of work/career field.

_____ Leaving my line of work/career field would cause little emotional trauma in my life.

_____ I am pleased that I have many alternatives available for changing my line of work/career field. (Reverse Scored)

_____ For me to enter another line of work/career field would mean giving up a substantial investment in training.

_____ It would be emotionally difficult to change my line of work/career field.

_____ I have too much money invested in my line of work/career field to change at this time.

_____ My line of work/career field is usually interesting enough to keep me from getting bored.

_____ I am often bored with my line of work/career field.

_____ I feel fairly satisfied with my present line of work/career field.

_____ My line of work/career field is pretty uninteresting.

_____ I find real enjoyment in my line of work/career field.

_____ I am willing to put in a great deal of effort beyond that normally expected in order to be successful in this line of work/career field.

_____ I talk up this line of work to my friends as a great career field to work in.

_____ I would accept almost any type of job assignment in order to keep working this career field.

_____ I find that my values and those associated with my line of work/career field are very similar.

_____ I am proud to tell other I am working in this career field.

_____ This line of work/career field really inspires the very best in me in the way of job performance.

_____ I am extremely glad that I chose this line of work/career field over others I was considering at the time.

_____ I really care about the fate of this line of work/career field.

_____ For me, this is the best of all possible career fields in which to work.

_____ If I could go to a different industry other than this industry which paid the same, I would probably do so.

_____ I definitely want a career for myself in this industry.

_____ If I could do it all over again, I would not choose to work in this career field.

_____ If I had all the money I needed without working, I would probably still continue to work in this career field.

_____ I like this vocation too well to give it up.

_____ This is the ideal vocation for a life work.

_____ I am disappointed that I ever entered this industry.

_____ I think often about leaving this line of work/career field.

_____ I intend to stay in this line of work/career field for some time.

_____ I intend to look for a different line of work/career field.

Section B

Listed below are a series of statements that represent possible feelings that individuals might have about the **ORGANIZATION** or **COMPANY** for which they work. With respect to your own feelings about the particular organization/company for which you are now working, please indicate the degree of your agreement or disagreement with each statement.

1 Strongly Disagree 2 Disagree 3 Uncertain 4 Agree 5 Strongly Agree

_____ I do not feel a strong sense of belonging to my organization/company.

_____ I do not feel "emotionally attached" to this organization/company.

_____ This organization/company has a great deal of personal meaning for me.

_____ I do not feel like "part of the family" at this organization/company.

_____ I would be very happy to spend the rest of my career with this organization/company.

_____ I enjoy discussing my organization/company with people outside of it.

_____ I really feel as if this organization's/company's problems are my own.

_____ I think I could easily become as attached to another organization/company as I am to this one.

_____ Right now, staying with my organization/company is a matter of necessity as much as desire.

_____ One of the major reasons I continue to work for this organization/company is that leaving would require considerable personal sacrifice - another organization/company may not match the overall benefits I have.

_____ I feel I have too few options to consider leaving this organization/company.

_____ One of the few negative consequences of leaving this organization/company would be the scarcity of available alternatives.

_____ It would be very hard for me to leave my organization/company right now, even if I wanted to.

_____ Too much in my life would be disrupted if I decided I wanted to leave my organization/company now.

_____ It wouldn't be too costly for me to leave my organization/company in the near future.

_____ I am not afraid of what might happen if I quit this organization/company without having another job lined up.

_____ I have too much time invested in my organization/company to change.

_____ Changing organizations/companies would be easy from an emotional standpoint.

_____ I would have many options if I decided to change organizations/companies.

_____ There would be a great emotional price involved in changing organizations/companies.

_____ It would be very costly for me to switch organizations/companies.

_____ I am pleased that I have many alternatives available for changing organizations/companies.

_____ It would be emotionally difficult to change organizations/companies.

Section C

Below are a number of statements each of which you may agree or disagree with depending on your own personal evaluation of **YOUR PRESENT JOB**. Please indicate the degree of your agreement or disagreement with each statement.

1 Strongly Disagree 2 Disagree 3 Uncertain 4 Agree 5 Strongly Agree

_____ The most important things that happen to me involve my present job.

_____ To me, my job is only a small part of who I am.

_____ I am very much involved personally in my job.

_____ I live, eat, and breathe my job.

_____ Most of my interests are centered around my job.

_____ I have very strong ties with my present job which would be very difficult to break.

_____ Most of my personal life goals are job-oriented.

_____ I consider my job to be very central to my existence.

_____ I like to be absorbed in my job most of the time.

_____ My job is like a hobby to me.

_____ My job is usually interesting enough to keep me from getting bored.

_____ It seems that my friends are more interested in their jobs.

_____ I consider my job rather unpleasant.

_____ I enjoy my work more than my leisure.

_____ I am often bored with my job.

_____ I feel fairly satisfied with my present job.

_____ Most of the time I have to force myself to go to work.

_____ I am satisfied with my job for the time being.

____ I feel that my job is no more interesting than others I could get.

____ I definitely dislike my work.

____ I feel that I am happier in my work than most other people.

____ Most days I am enthusiastic about my work.

____ Each day of work seems like it will never end.

____ I like my job better than the average worker does.

____ My job is pretty uninteresting.

____ I find real enjoyment in my work.

____ I am disappointed that I ever took this job.

____ I think often about quitting this job.

____ I plan to stay in this job for some time.

____ I intend to look for a different job.

Section D

Please check your response or fill in the blank with the appropriate information for each of the following items.

1. What is your sex? ____ female ____ male
2. How old were you on your last birthday? _____
3. How much education have you had? ____some high school; ____high school graduate; ____some college; ____college graduate; ____some graduate work; ____master's degree; ____doctor's degree; (if other, explain _____)
4. What is your present marital status? ____married; ____widowed; ____divorced; ____separated; ____never been married
5. How many children **under 6** years of age live with you or with you and your husband or wife? _____
6. How many children between **6 and 17** years of age live either with you or with you and your husband or wife? _____

7. How many children between 18 and 21 years of age do either you or your husband or wife have? _____
8. How many of your relatives (mother, father, brothers, sister, sons over 21, daughters over 21) live within 50 miles from where you live? _____
9. How many of your husband's or wife's relatives live within 50 miles from where you live? _____ (put 0 if question does not apply)
10. How long have you been employed in your line of work/career field? _____
11. How long have you worked for your organization/company (in any capacity)? _____ years
_____ months
12. How long have you worked for your organization/company in your present position? _____
years _____ months
13. How long have you worked for your present supervisor?
_____ years _____ months
14. How many hours do you typically work each week? _____

After completing the survey, fold and tape (or staple) the pages so that the address on the back of this page can be read by the postal service. Thank you for your time and cooperation!

VITA

Kerry David Carson is a Ph.D. candidate in the Department of Management, Louisiana State University. He holds an M.S.W. from Indiana University and is now completing his degree at Louisiana State University in management. He has worked in clinical and managerial positions for several mental health centers. His primary areas of interest are organizational behavior and human resource management. He is currently conducting research on workplace commitments and quality outcomes.

DOCTORAL EXAMINATION AND DISSERTATION REPORT

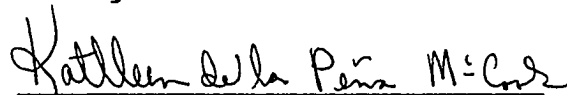
Candidate: Kerry D. Carson

Major Field: Business Administration (Management)

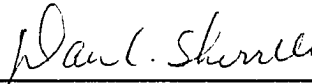
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Gauging Motivation to Work in One's Career Field.

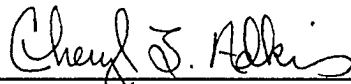
Approved:


Major Professor and Chairman


Dean of the Graduate School

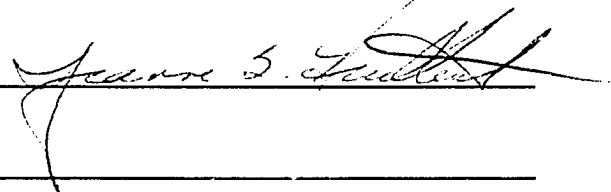
EXAMINING COMMITTEE:











Date of Examination: