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HIGH LEVELS OF COMMITMENT TO WORK AND DIMENSIONS OF
ACHIEVEMENT MOTIVATION AMONG WOMEN AND MEN IN MANAGEMENT

The Ohio State University

Ph.D. 1984

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HIGH LEVELS OF COMMITMENT TO WORK
AND DIMENSIONS OF ACHIEVEMENT MOTIVATION
AMONG WOMEN AND MEN IN MANAGEMENT

DISSERTATION

Presented in Partial Fulfillment of the Requirements for
the Degree Doctor of Philosophy in the Graduate
School of The Ohio State University

By
Maxene Stansell Doty, B.A., M.A.

* * * * *

The Ohio State University
1984

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To my parents who taught me
to dream... and to dare
and
To my husband who helped me
in every way he could
ACKNOWLEDGMENTS

As is true for most monumental tasks, the completion of this project required assistance in several forms from many people who are highly committed to their work. Two hundred thirteen very busy women and men found time somehow to participate as subjects. Their employers gave me permission to contact them, and urged cooperation. Colleagues in Maine, led by Audrey Simon, did battle with the data and computer for me. Back in Ohio, Sharon Ferrell typed—and retyped—with unfailing humor. I wish to acknowledge their expertise and to express my appreciation to all of them.

One person was closely involved in each stage of the research, from initial conceptualization to final draft. Dr. Nancy Betz, adviser, mentor, friend, encouraged, consoled, and maintained interest and enthusiasm when my own faltered. For her guidance and steady support throughout the past several years I am very grateful indeed.

I would like also to offer thanks to the members of my committee, Dr. Samuel H. Osipow and Dr. W. Bruce Walsh, for their interest, helpful comments, and for their time.

Finally, it is important to recognize my own special cheering section at home, who helped me keep in proper perspective such things as exams and orals and laughter and love.
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PUBLICATIONS


MAJOR FIELD OF STUDY: Counseling Psychology
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CHAPTER I
INTRODUCTION

In a society that prizes achievement and rewards success, strong commitment to work is associated with positive outcomes and is encouraged by such institutions as the family and school, as well as business and industry. Consequently, studies of work-related behavior traditionally have been directed toward understanding underachievement for purposes of discovering means to increase occupational involvement (e.g., McClelland & Winder, 1971; Steers, 1977; Wofford, 1971). It is not surprising, then, that the potential for negative effects in high levels of work commitment was disregarded in decades of scientific research.

The terms "workaholic" and "workaholism", with the implicit notion of addiction to work, appeared first in the popular press, accompanied by descriptions of symptomatic behavior, probable causal factors, common personality characteristics, predictions of dire consequences, and possible interventions (Oates, 1971). In addition, a correspondence was noted (Suojanen & Hudson, 1977) between overcommitment to work and the Type A personality
pattern defined by Friedman and Rosenman (1974). Despite its anecdotal and speculative nature, such information served to focus attention from a new perspective on the interaction between work and health and psychological well-being. The likelihood was recognized that intense investment in work may indeed be desirable, but may also produce destructive results.

Undoubtedly, this recognition contributed to a trend toward the creation and expansion of company-sponsored counseling services (Gavin, 1977), a focus of medical research on relationships between work activity and disease (e.g., Rahe, Hervig, & Rosenman, 1978), and the emerging interest of counseling psychology in occupational mental health and vocational therapy (Osipow, 1979). However, although a great deal is presumed to be known about workaholism, it is only recently that empirical investigation of high levels of commitment to work has been undertaken.

Evidence to date is difficult to integrate and interpret because of different investigative approaches and conceptualizations of workaholism. Initial exploration (Machlowitz, 1980) was conducted using interview and questionnaire data from a sample of self-designated workaholics, described as "those whose desire to work long and hard is intrinsic and whose work habits almost
always exceed the prescriptions of the job they do and the expectations of the people with whom and for whom they work" (p. 9). Perhaps the most striking difference in common conjecture and results of this research was the conclusion that consequences of workaholism could be positive. While some of the subjects were characterized as driven and frustrated, which the stereotype predicts, others appeared to be fulfilled and satisfied.

Subsequent study in the area of high degrees of work commitment sought to resolve the apparent contradiction in the notion of "fulfilled workaholic", suggested by the earlier research (Machlowitz, 1980). Doty (1980) proposed the existence of two groups among those individuals who have been labeled, collectively, addicted to work: one group whose work involvement is extreme but life-enhancing and positive; and another group whose commitment to work is excessive and detrimental, therefore, more accurately considered workaholic. The distinction was postulated to lie, not simply in the intensity of desire to work or the amount of time involved, but in attitudes toward work reflecting different degrees of psychological health. Theoretically, high levels of work involvement plus healthy attitudes and behaviors indicate extreme-positive work commitment and describe individuals who are challenged, stimulated, and satisfied
by work; the combination of intense work involvement with unhealthy attitudes and behaviors indicates excessive-detrimental commitment to work and describes those workers likely to suffer such adverse effects as physical illness, emotional problems, difficulties in maintaining personal relationships, and potentially ineffectual work performance.

In order to examine the postulated distinction, and to differentiate these two groups, the Work Attitudes Questionnaire (WAQ) was constructed (Doty & Betz, 1981). The WAQ consists of two scales, designed to assess 1) the extent of commitment to work, and 2) the degree to which work involvement is associated with psychologically healthy versus unhealthy attitudes and behaviors. Preliminary evaluation in a sample of male business managers provided evidence of construct validity and internal consistency reliability for the WAQ Commitment, Health, and total scales. Thus, a measure was made available for facilitating further exploration of high levels of work commitment and workaholism.

Given the current low level of understanding of high levels of commitment to work, potentially valuable research in the area could proceed in numerous directions. One important direction is consideration of the work-related behavior of women as well as that of men, and comparison of the work involvement of men and women.
An obvious reason for including both sexes in a study of work is that women now constitute almost half of the total labor force in this county (U.S. Dept. of Labor, 1981). Further, increasing participation by women in work outside the home is reflected not only in numbers of women employed, but also in degree of work involvement. Indications that more women are attributing greater priority to vocational pursuits include female entry into traditionally male occupations, such as business (Robertson & Hackett, 1977), and gradual progress by women into upper levels of the hierarchy, such as management (Larwood & Lockheed, 1979). Therefore, expecting high levels of commitment to career for many, if not all, women who are employed does not seem unreasonable.

Nonetheless, presuming equality of the sexes in work commitment may well be folly, just as most early assumptions regarding the vocational behavior of women and men have proved to be. The recognition of sex differences as a significant factor in work-related issues (Osipow, 1973) has intensified empirical interest in female occupational involvement. This research focus on women and work has, in turn, stimulated new theory (Hackett & Betz, 1981) and contributed to a developing career psychology of women (Fitzgerald & Crites, 1980). It is both timely and necessary then, to examine and compare
the commitment to work of women and men, because extending to women conclusions based on the study of male samples is no longer viewed as acceptable scientific procedure.

Additional reasons for male-female comparisons are directly related to high levels of commitment to work. Careers generally believed to foster intense dedication are those which entail substantial responsibility and promise of advancement into upper echelons. Occupations meeting these criteria, especially that of significant advancement potential, are primarily filled by men. Since this is true of business management, an occupation frequently associated with workaholic (Hegarty, 1979) and Type A behavior (Friedman & Rosenman, 1974), sex differences in work involvement for managers might be predicted, based on the unique situation of women engaged in work traditional for men.

That women pursuing non-traditional careers have experiences different from those of men in the workplace is indicated by research results as well as by intuitive impressions. The literature on women and work, and more specifically, on women in management, identifies various obstacles to the corporate ascent of women. External barriers, in the form of differential treatment and expectations, plus internal barriers, stemming from
negative self-concept issues, complicate female career development and may influence work commitment.

Barriers confronting women who aspire to management positions are illustrated in the following research conclusions. Women are viewed as less competent than men (Larwood, Rand, & der Hovanessian, 1979), and so are less able to make mistakes, are more closely observed, and are more apt to be reprimanded for perceived ineffective behavior (Inderlied & Powell, 1979); the performance of women is often underestimated not only by men, but also by women themselves (Ezell, Odewahn, & Sherman, 1980); requirements for promotion are more stringent for women (Wood, 1975); women tend to attribute success to extra effort rather than to ability (Deaux, 1979); and finally, women generally have been envisioned as less committed than men to a career (Wood, 1975).

Considering the difficulties posed by barriers suggested above, it might be postulated that women who attain management levels exhibit greater degrees of work involvement than their male colleagues. Women more than men may require intense occupational dedication and effort in order to negotiate the obstacles to career advancement.

However, an equally compelling conflicting argument could be presented. Because women are expected to assume the roles of homemaker and mother even while managing
significant responsibilities at work, and because multiple role demands may influence occupational commitment in a negative way, the likelihood exists that women would demonstrate less commitment to their careers than would men.

It is unclear, then, how or whether work commitment levels and sex differences resulting from barriers specific to women in career pursuits are related. Also uncertain is whether men and women may be expected to differ in the degree of health associated with intense commitment to work. Whether one sex or the other is more apt to be characterized by workaholic attitudes and behavior is as yet undetermined.

The study of high levels of work commitment needs to be continued, and exploration of women as well as men is warranted. Although the first study of workaholics (Machlowitz, 1980) reported no sex differences, findings were based on a sample of 40 men and 10 women, and the distinction between positive and negative work involvement was not addressed. Differentiation of psychologically healthy versus unhealthy degrees of commitment to work was undertaken via development of the WAQ (Doty & Betz, 1980) in an exclusively male sample. Female norms for the WAQ have been calculated, using a sample of employed women (Sherrod & Betz, Personal Communication,
Thus, further study of extreme-positive and excessive-detrimental levels of work commitment among men and women can proceed.

In addition to the need for research on sex differences in work commitment and work addiction is the need for studies of causal factors and related characteristics. To date, one attempt has been made to discover personality correlates of different degrees of work commitment (Doty, 1980). Self-esteem and locus of control, suggested by the workaholic stereotype and the Type A personality pattern, were predicted to differ in "fulfilled" and "driven" workers. However, no significant relationships were found in a sample of 93 male business executives exhibiting extreme-but-positive work commitment (55%) and excessive-and-detrimental, or workaholic, involvement with work (31%), as assessed by the WAQ.

Another possible underlying personality variable, seemingly inherent in the concept of intense commitment, is need for achievement. Historically considered a unitary construct, and assessed by projective techniques (McClelland, Atkinson, Clark, & Lowell, 1953), need for achievement more recently has been postulated to be a set of related but separate components (Spence & Helmreich, 1978). In conjunction with the multidimensional conceptualization of the achievement motive, the
Work and Family Questionnaire (WOFO) was designed to provide an objective measure of the construct.

The dimensions of need for achievement identified by Spence and Helmreich (1978) were designated 1) Work Orientation, 2) Mastery, and 3) Competitiveness. Work Orientation refers to the desire to work hard and to stay busy; Mastery refers to the desire for intellectual challenge and a drive toward internal standards of excellence; and Competitiveness refers to the desire to be successful in interpersonal competition. It is these separate factors, which the WOFO was designed to measure, that suggest the value of exploring the achievement motive in relation to work commitment levels.

The idea of a close conceptual connection between the first factor, Work Orientation, and work commitment hardly requires compelling argument. In fact, the similarity is such that a high positive correlation may be expected. If a subtle distinction can be detected in orientation and commitment, it is that of value versus investment, belief versus behavior, or subjective versus objective. In other words, an individual might focus on work to the extent of neglecting other areas (commitment), yet truly believe life balance is desirable and has been accomplished (orientation). Since such a belief/behavior conflict is common in addiction (Kolb, 1977),
i.e., the intensity of involvement is unrecognized or denied, the strength of reported Work Orientation is not likely to differ for addicted and fulfilled workers. Therefore, the major benefit anticipated from investigating the correspondence of Work Orientation, assessed by the WOFO, and work commitment, is further construct validation of the WAQ.

Predicting a positive relationship between strong commitment to work and Mastery, the second achievement motivation factor, is reasonable. As the drive toward excellence approaches perfectionistic, therefore, less healthy proportions, the likelihood of Mastery and mal-adaptive-work-commitment association increases. Thus, desire for challenge and drive toward excellence may vary in healthy and unhealthy degrees of work involvement.

Most likely to differentiate positive and negative work commitment, however, is the Competitiveness dimension of need for achievement. In both conceptions of the workaholic (Oates, 1971) and research conclusions (Machlowitz, 1980), as well as descriptions of Type A behavior, a "profound inclination and eagerness to compete" (Friedman & Rosenman, 1959) is specified as a salient characteristic. Although some degree of desire to prevail over others may be implicit in high levels of commitment to work, the intensity of competition seems critical to distinguishing dysfunctional versus gratifying
involvement with work. Strong Competitiveness, then, would be expected to correspond to higher, i.e., excessive, work commitment.

To summarize, the present research was designed to investigate the construct of need for achievement, along with sex differences, in the study of intense involvement with work. More specifically, the study was designed to investigate the relationship of the achievement motives of work orientation, mastery and competitiveness to extreme-but-positive and excessive-and-detrimental work commitment. In addition, examination of the relationships of different levels of commitment to work to the three dimensions of need for achievement, especially that of work orientation, was expected to contribute to the process of construct validation of the Work Attitudes Questionnaire.

The purposes of the present investigation, then, were the following:

1) To compare both the extent of work commitment and the degree of psychological health associated with work involvement, among men and women in a traditionally male occupation.

2) To explore relationships between extreme-positive versus excessive-detrimental commitment to work and the achievement motivation dimensions: work orientation, mastery and competitiveness.

3) To continue the validation process of the Work Attitudes Questionnaire.
CHAPTER II
REVIEW OF THE LITERATURE

Several areas of research in combination provide background for the present investigation. First, available information regarding high levels of work commitment and workaholism will be examined. In a second section, studies of women in non-traditional occupations, particularly in management roles, will be reviewed. Then briefly, literature considering achievement motivation as a multi-dimensional construct will be discussed.

Work Commitment

Historically there has been, and continues to be, an interest in increasing the commitment and involvement of people engaged in occupational pursuits. During the past several years, however, a need to learn more about the possible harmful effects of overinvolvement in work was recognized by scientific investigators (Rabinowitz & Hall, 1977). The initial response to this need, stemming from a different perspective of the relationship between work and psychological health, was extensive coverage in the popular press. There was a great deal of speculation about the undesirable aspects of intense
commitment to work. It was suggested that work could be addictive (Suojanen & Hudson, 1977), and that the only substantial difference in comparison to alcohol or other drugs was cultural approval of excessive involvement with work versus disapproval of drug abuse. Further, the notion of addiction was reflected in vocabulary with the introduction of the terms "workaholic" and "workaholism" (Oates, 1971).

A general profile of the addicted worker emerges from the synthesis of numerous articles in the popular press. Workaholics are considered to be impatient, aggressive, competitive, anxious, guilt-ridden, insecure, self-righteous about work, merciless in self-demands, compulsive, self-centered, hostile, critical, suspicious, arrogant, and low in self-esteem. Further, workaholics are defined as 1) intensely committed to the work itself, spending long hours in job-related activity at the expense of family, vacations, and avocations, and 2) unable to limit a need to work that has become so great that it disturbs or interferes with physical health, emotional well-being, and social functioning. Although commonly viewed as high-striving, hard-driving business executives, self-identified workaholics have been found among other vocational groups. These include a minister (Oates, 1971), writer, banker, designer, lawyer, politician, and a psychologist (Machlowitz, 1977).
Additional symptoms of workaholism have been said to be long hours devoted to work, the intensity with which work is approached, unusually high standards, being sick only on holidays, complaints by the family, and general recognition that work is attributed highest priority in the life of the addicted person (Oates, 1971). Other general characteristics considered significant in work addiction include 1) an involuntary predilection for skill, skill development, and specified goals, 2) an analytic orientation which precludes experience resisting precise definition, 3) an emphasis on the future and achieving goals, and minimal attention to sensations of the present, 4) an aggressive need to manipulate and control the environment, and 5) a profound respect for efficiency and effectiveness, with a corresponding abhorrence of waste and loss of any kind (Rohrlich, 1980).

Still further descriptive information includes the postulation of a typology of work addicts, based on various underlying dynamics (Rohrlich, 1981). The thirteen types are the following: 1) the angry, hostile work addict, 2) the ashamed work addict, 3) the competitive work addict, 4) the defensive work addict, 5) the friendless, lonely work addict, 6) the guilt-ridden work addict, 7) the latent homosexual work addict, 8) the sexually impotent or frustrated work addict, 9) the narcissistic work addict, 10) the obsessive work addict,
11) the passive-dependent work addict, 12) the pre or post-psychotic work addict, and 13) the pseudo or escapist work addict.

Developmental stages also have been suggested for workaholism (Oates, 1971), an addiction which ostensibly occurs in the second and third decades of life. The first observable sign is frequent comments about the amount of time devoted to work. This difference in the addicted and the well-adjusted worker is followed by constant references to the amount of work accomplished, especially in comparison to others less involved in their work. A third indication of addiction is an inability to say no to extra work responsibility. The crucial stage is said to begin when a collapse, either physical or in interpersonal relationships, occurs. At this point, according to Oates, either rehabilitation or chronic workaholism ensues.

Beyond personal experience and observation, little evidence has been offered to support the preceding assumptions regarding excessive work commitment. Publications in the scientific literature have been mainly descriptive and theoretical in nature, derived from case studies. Hatterer (1966) wrote of the unique quality of work identity for creative artists in therapy. Kramer (1977) attributed the work compulsion of one patient in psychoanalysis to homosexual tendencies. Mentzel (1979)
described one case to illustrate his conclusions regarding the development and psychodynamics of workaholism, emphasizing the likenesses to alcoholism. And finally, the descriptions and interpretations of work addiction presented by Rohrlich (1981), discussed above, were based on his psychonaalytic practice and work as a corporate consultant in the Wall Street financial district. The suggestion by Suojanen and Hudson (1977) that overcommitment to work corresponds to the Type A personality pattern defined by Friedman and Rosenman (1974), though intuitively appealing, remains conjecture. In the areas of high levels of work commitment, opinion is plentiful but research is not.

Recently, however, empirical investigation has begun to focus on intense involvement with work. To date, there are reports of two studies. Machlowitz (1980) explored a sample of 50, using structured interviews and questionnaire data. Subjects were 40 men and 10 women who described themselves as workaholics; the subjects represented a variety of occupations, occupational and educational levels, and ranged in age from 25 to 64. Impatience and time pressure, high energy level, fear of failure, constant pre-occupation with work, an intolerance for inactivity, and therefore, avoidance of vacations and time off the job, were shown to characterize the
sample. Motivation was found to include both the pleasure of work and the pain of not working. The latter seems comparable to the withdrawal syndrome specified in the definition of addiction (Kolb, 1977).

Contradicting beliefs about addiction, though, and also popular conceptions of the workaholic and of Type A behavior as well, was the suggestion by Machlowitz that workaholism is probably permanent. Retrospective accounts of childhood and adolescence revealed that a tendency toward the workaholic personality pattern existed long before formal entry into the labor force. Further, Machlowitz found indications that workaholism persists despite even drastic career changes, suggesting that personality, rather than occupation, is the critical factor.

Empirical evidence in one study then, was in accordance with some conceptions of workaholic behavior, and in contrast to the notions of addiction and potential for change. But the intriguing difference in common conjecture and Machlowitz' research findings that prompted subsequent investigation was the conclusion that workaholism could have positive consequences. While some of the subjects describing themselves as workaholics did appear to be frustrated, as the stereotype predicts, others appeared to be fulfilled and satisfied. Further,
there appeared to be a conflict inherent in the phrase "fulfilled workaholic".

Consequently, Doty (1980) proposed the existence of two groups among those individuals described as workaholic: one group whose work involvement is extreme but life-enhancing, and another group whose commitment to work is excessive and destructive, therefore, more accurately considered addictive. The distinction was postulated to lie, not simply in the intensity of desire to work or the amount of time involved, but in attitudes toward work reflecting different degrees of psychological health. Theoretically, high levels of work commitment plus healthy attitudes and behaviors describe individuals who are challenged, stimulated, and satisfied by work; the combination of intense work involvement with unhealthy attitudes and behaviors describes those workers likely to suffer such adverse effects as physical illness, emotional problems, difficulties in maintaining personal relationships, and potentially ineffectual work performance.

To examine the postulated distinction, and to differentiate these two groups, the Work Attitudes Questionnaire (WAQ) was constructed (Doty & Betz, 1981). The WAS consists of two scales, designed to assess 1) the extent of commitment to work, and 2) the degree to
which work involvement is associated with psychologically healthy versus unhealthy attitudes and behaviors. Preliminary evaluation in a sample of male business managers provided evidence of construct validity and internal consistency reliability for the WAQ Commitment, Health, and total scales. Thus, an instrument was made available to facilitate continued exploration of high levels of work commitment and workaholism.

Along with instrument development, the research conducted by Doty (1980) included an attempt to identify personality correlates related to different degrees of work commitment. Self-esteem and locus of control were predicted to differ in high-but-positive work involvement, compared to excessive-and-detrimental commitment to work. However, examination of a sample of 93 male business executives revealed no significant differences in the variables of self-esteem and locus of control as a function of work commitment level.

In sum, a great deal is presumed to be known about commitment to work at high levels and workaholism, though empirical study has only begun. A means for identifying high levels of commitment to work and further, for differentiating positive from potentially problematic work behavior and attitudes, has been provided by construction of the WAQ. The process of instrument validation needs to be pursued, as does investigation
The past two decades have witnessed profound changes in the concept of women's work, with corresponding movement by women from the home to the marketplace. In response to these changes, the study of vocational behavior has expanded in scope by recognizing that gender represented a significant factor in work-related issues (Osipow, 1973). Extending to women conclusions based on the study of male samples has become questionable scientific procedure. Therefore, new theory of women's career development (Hackett & Betz, 1981), a developing career psychology of women (Fitzgerald & Crites, 1980), and a vast body of literature regarding sex differences have been generated.

A search for sex differences in work commitment requires exploration of sex differences, real and perceived, that may influence occupational behavior. Comparisons of women and men engaged in careers believed to demand intense involvement, i.e., occupations and occupational levels considered non-traditional for women, have been the focus of numerous research efforts. Consequently, evidence of differences in the experiential worlds of women and men has been presented, and the existence of obstacles to the achievement, adjustment, and success of women in male-dominated careers has been documented.
Sources of complication for women at high levels in the world of work can be identified in perceptions of others (representing external barriers) and also in perceptions of women about themselves (representing internal barriers). This distinction between external and internal barriers to women's career development, made continuously throughout the research literature (e.g., Farmer, 1976; Harmon, 1970), serves as a useful framework for a brief review of obstacles confronted by women engaged in non-traditional careers. Following an overview of some of the barriers to the career development of women, the potential relationships of those barriers to work commitment will be explored. Research that has addressed sex differences in commitment to work will then be considered.

External Factors. That expectations for women and men differ is apparent in the terms sex-role, sex-stereotype, traditional, and non-traditional. Since the traditional role for women has been that of homemaker and mother, entry into the labor market, particularly into high level occupations and professions, has been characterized by resistance, reflecting societal disapproval. Women are apt to encounter external barriers that discourage their occupational efforts in blatant and subtle ways, because a career is considered inappropriate to the female role. Success in management, for example, has been viewed as requiring characteristics, attitudes, and
temperament, as well as skills and knowledge, more commonly attributed to men than to women. In fact, women were described as unfit for management by over one thousand male executives surveyed by Harvard Business Review twenty years ago (Bowman, Worthy, & Greyson, 1965), and, apparently, derogatory attitudes persist.

Illustrating adverse opinions of women as managers is a study by Rosen and Jerdee (1978). Designed to assess perceptions of male as compared to female employees, the research was based on a survey of 884 male managers and administrators, located in regions across the country and representing a variety of businesses and industries. Subjects responded to a questionnaire consisting of 64 items in four categories: 1) aptitudes, knowledge, and skills; 2) interest and motivation; 3) temperament; and 4) work habits and attitudes. Virtually every perceived difference indicated in the results was unfavorable to women aspiring to higher level positions. Moreover, no significant differences in outcome were found when the sample was divided according to organizational or demographic characteristics, or variables reflecting the extent of contact with women in co-worker or supervisory positions.

Similar negative attitudes toward women in management were suggested in earlier male/female comparisons (Schein, 1973). A sample of 300 male middle managers was asked to describe men-in-general, women-in-general,
and successful-managers. Clear differences were demonstrated between perceptions of men-in-general and women-in-general, with successful-managers' descriptions corresponding to those of men-in-general. In contrast, women-in-general were judged as lacking leadership ability, competitiveness, self-confidence, objectivity, aggressiveness, forcefulness, ambition, and desire for responsibility. The perceptions expressed by male managers were echoed in a subsequent investigation of 167 female managers (Schein, 1975).

Further evidence that external barriers exist for women in business was presented by Robertson and Hackett (1977). Perceptions of managers about saleswomen, salesmen about saleswomen, and saleswomen about saleswomen were examined in a sample of 249 sales managers, plus 52 saleswomen, and 59 salesmen. Personality variables, e.g., aggressiveness, extrovert nature, trust, and also task variables, e.g., competency, career orientation, self-confidence, were assessed. The most striking differences revealed in perceptions of the three groups (managers, salesmen, saleswomen) were in confidence and career orientation. Salesmen rated women lower, and managers rated women lower still, on both factors than did women themselves.

Essentially the same results were found in a replication (Massengill & DiMarco, 1979), of the studies
reported above by Schein, (1973; 1975). Questionnaires identical to those employed in the previous research were utilized for the 54 female and 74 male managers and supervisors who participated in the investigation. Reported by male respondents was a high degree of similarity in descriptions of men and managers, but no similarity between men and women, or between women and managers. Women were considered by men to be lacking in ability to handle high demands and pressures. Both sexes agreed that women do not exhibit dominant-aggressive characteristics that are important for effective management. However, some evidence was presented to suggest changing perceptions about women: moderate rather than total similarity between men and managers was indicated, and was accompanied by reports of at least a slight similarity between women and managers, and also between women and men.

In a step beyond the simple identification of sex differences, research was conducted to assess the consequences of differing perceptions of competence among male and female managers (Larwood, Rand, & Der Hovanessian, 1979). The sample of 76 men and women in personnel management read vignettes in which an employee committed a serious judgmental error, then evaluated the competence of the employee, and recommended discharge, transfer, suspension, demotion, or no punitive action. Employees in the vignettes were described as male or female, and
as holding a traditionally male or female position. Judged most competent were men in "male" positions. Women in "male" positions were seen as more competent than either sex in "female" positions, suggesting that the work rather than gender was the discriminating factor. However, punitive action was recommended for women more often than men in their respective traditional roles, and most often against women in non-traditional roles. Since sex of subject was not a significant factor in evaluation, men and women apparently concurred in judgments and recommendations.

Results such as those presented above prompted general conclusions that women in the workforce are viewed as less competent than men, and that women are more apt to be reprimanded for behavior perceived as ineffective. Women then, especially those in positions of authority, i.e., traditionally male positions, are less able to make mistakes, more closely scrutinized (Inderlied & Powell, 1979), and are subjected to treatment different from that of their male counterparts.

In sum, the research reviewed reveals external barriers, represented by and stemming from perceptions of others, likely to hinder the assimilation of women into previously male high-level positions. It might be assumed, then, that intense dedication and persistence would be demanded of women who aspire to and succeed in reaching these levels.
Internal Factors. While external barriers, in the form of attitudinal bias, have been major deterents to women's performance and success in non-traditional occupations, additional barriers in the form of internal obstacles, i.e., negative opinions of women about women, further complicate female career development. As specified by Harmon (1970) and Farmer (1976), psychological or self-concept factors may constitute internal barriers to career achievement. Not only are women described by men, but they describe themselves as having self-concepts unsuitable for management (Terborg, 1977).

One manifestation of this negative attitude is sex differences in the causal explanations for success and failure, the focus of a study by Deaux (1979). Job descriptions and performance evaluations by self-report and by supervisors, along with assessment of attributions were obtained from 70 male and 64 female managers. The results of analyses revealed significant differences: men rated higher than women their own performance, ability, and intelligence; in comparison to female managers, the male managers considered the work they performed as more difficult, and relationships with supervisors as better. Based on these results, it was concluded that men are more likely to attribute success or failure to internal and permanent factors such as ability, while women tend
to make attributions to external and temporary factors such as luck, ease of task, or extra effort.

The tendency of women to underestimate their ability, which is seen repeatedly in the literature (Brown, 1979; Larwood, Wood, & Inderlied, 1978; Stevens & DeNisi, 1980; Wood, 1975), was reflected in the results of a study of female managerial competence (Ezell, Odewahn, & Sherman, 1980). Competence was investigated from a three-dimensional perspective, i.e., competence-ability, competence-motivation, and competence-environment. A sample of 304 managers, 57% male and 43% female, reported perceptions of self-competence and of competence for women-managers-in-general. According to the results, women-managers-in-general were considered more competent by male than female subjects. Data based on the self-perceptions of competence revealed greater competence-motivation and competence-environment, but less competence-ability for female as compared to male managers. In comparison to men, then, these women in management indicated less confidence in their ability plus a stronger desire to succeed. Such a combination illustrates a self perception that represents an internal barrier, and suggests conflict.

Still another self-concept issue with potential for effecting work commitment for women is role conflict, the incompatible demands of career and home responsibilities.
One source of pressure derives from the possible lack of support and/or lack of approval on the part of significant others, primarily husbands, but also neighbors, husband's colleagues, and parents (Bailyn, 1970). Another source of pressure stems from the conflict and guilt associated with combining the role of worker with that of mother. In a study of dual career families (Johnson & Johnson, 1977), each of the mothers mentioned major concerns over this issue. Supporting data are provided by Lopata (1966), who reports that satisfaction with the management of competing roles decreases with the addition of each child, but rises as the children begin to leave home. In confirmation, one study (Hall & Gordon, 1973), found that home pressures are the salient factor in role conflict.

Considering the plight of women entering non-traditional occupations, a counselor has advised, "No one will quite understand the stress, the responsibilities, the struggle of integration that she carries within her" (Lang, 1978, p. 182). However, an analysis of occupational stress suggested that women who have already achieved administrative levels are not hindered by the strain any more than their male colleagues. In fact, the results indicated that women experienced less of, or managed more effectively than men, the stress factors investigated (Tung, 1980). A sample of 1156 school administrators
(108 female) responded to a questionnaire designed to assess role-based, task-based, conflict-mediating, and boundary-spanning dimensions of stress. The female administrators reported lower levels of stress on all four factors than did male administrators, a finding which could represent differences between the career stages of entry and adjustment.

In sum, the preceding studies suggest that internal barriers as well as external obstacles may inhibit the career development and have impact on the work commitment of women. Inaccurate perceptions of themselves as less able to perform in the occupational arena, and unrealistic expectations regarding the simultaneous fulfillment of home and work responsibilities, can interact to produce for women still further psychological stumbling-blocks.

Because of conflicting evidence, more than one hypothesis may be formulated in considering the possible relationships between commitment to work and the occupational barriers women are likely to encounter. First, expectations that women will assume the roles of homemaker and mother while managing highly demanding careers might influence work commitment in a negative way. It simply may be impossible for the majority of women to grant priority to career pursuits as men generally do. Whereas the primary role for men is understood in terms of marketplace rather than domestic responsibilities, most women
face multiple role demands. Thus, it might be postulated that women would demonstrate lower levels of work commitment than would men, despite identical work activity and responsibility.

Conversely, there is reason to believe that greater difficulties in a situation may result in greater effort and commitment in attempts to meet the demands of the situation. In other words, if it is more difficult for women to achieve success in a work environment, it might be expected that they would be more committed to work and would strive harder to succeed. Thus, based on differences in the experiential worlds of men and women engaged in work considered traditional for men, greater work commitment among women might be hypothesized.

Clearly, these relationships are speculative in nature, and investigation of the work commitment of women and men in different occupations is needed. Research efforts pertinent to sex differences in commitment to work have only recently begun.

Work Commitment Comparisons. Although the career orientation of women has received research attention, the focus typically has been comparing home-oriented versus career-oriented women. There has been relatively little exploration of the relationship between women and the work they do outside the home. Two recent
investigations which did address the commitment of men and women to their careers illustrate the current cursory approach to the topic. In neither study was work commitment of specific or primary interest.

The first of these studies to be considered (Shann, 1983) examined career plans of 297 male and 260 female graduate students. Both sexes were represented among the subjects preparing for male-dominated (business, law, medicine) and traditionally female (education, nursing, social work) professions. Responses to an open-end question regarding career expectations at four intervals over a twenty-year time span were submitted to content analysis. Career plans were analyzed for assessment of 1) continuity, 2) specificity, 3) ambition, and 4) accommodation to family and child care responsibilities. Several results of this research were pertinent to exploration of work commitment.

Although each of the four dimensions of career plans specified above (Shann, 1983) appear to reflect an aspect of commitment to career, discussion of professional commitment centered upon the continuity dimension. Commitment to work was operationally defined as a dichotomous variable, i.e., as expressing plans to work in one's field of training or not, at each of the time periods assessed. Data analysis based on this narrow definition of work commitment suggested that women and men did not differ. No significant sex differences for any time period were
revealed by any career group. However, if ambition were viewed as indicative of commitment to career, then differences in work commitment as a function of sex did emerge. At the twenty-year point, career plans reported by the business group reflected greater levels of ambition for men than for women. Nonetheless, despite evidence of sex differences for business students, overall results of this investigation suggested that differences between occupational groups were greater than differences between the sexes within careers, especially for women and men in male-dominated occupations.

The second study relevant to work commitment (Rynes & Rosen, 1983) provides further indirect evidence through examination of reactions to career advancement opportunities. The subjects, 42 men and 42 women pursuing MBA degrees by attending evening classes while maintaining full-time employment, responded to a survey questionnaire. The instrument was designed to elicit attitudes toward the following: 1) change of employer, representing risk-taking, 2) geographical relocation, representing personal sacrifice, and 3) change of job function, representing additional skills, duties, and responsibilities. The results of this investigation suggested that female managers, in comparison to male managers, were not less committed, less dedicated, or less willing to accept the costs associated with advancing their careers. No
statistically significant differences were found in the attitudes of women and men toward the changes designated as important opportunities for career advancement.

Finally, the initial exploration of intense commitment to work, i.e., the study of self-identified workaholics presented in an earlier section (Machlowitz, 1980) detected no sex differences. It is important to note, however that findings were based on a sample of 40 men and 10 women, and also that no distinction between positive, psychologically healthy, or negative, psychologically unhealthy, commitment to work was considered.

In sum, although the literature on sex differences and women and work is extensive, very little research attention has been directed toward the understanding of occupational involvement for women in comparison to men. Given the existence of barriers to women's career achievement, and considering that expectations of women versus men in the work force are quite different, there is ample reason to postulate that the work commitment of men and women might be different. Whether the kinds of experience faced by women would result in greater work commitment than men, or whether the extreme level of external demands on women might cause work commitment at a lower level than that of men, is yet to be fully explored.
Still another possible outcome of work commitment comparisons was suggested in the preceding review. There may indeed be no meaningful differences in commitment to work that can be attributed to the sex factor for women and men in the same career, e.g., at that same level in the corporate world. Both reason and research results recognize that important differences exist between women in general and women who are employed, and further, between women in careers traditional for women and women engaged in careers dominated by men. It may be that women in management are more similar to men in management than to other women, particularly in attitudes, involvement, and commitment, concerning the work that they do.

Yet women entering non-traditional careers, or heretofore exclusively male occupational levels, have been admonished to work hard, "harder, perhaps, than men, in order to go as far" (Lang, 1978, p. 182). Other professional advice offered to women aspiring to management positions (Wood, 1975) included the following: 1) attend management development classes, 2) let it be known that you are serious, 3) give your work highest priority.

These directions, suggested in interviews conducted with 100 women in positions ranging from management trainee to company president, have clear implications for the work commitment of women in management careers. Compared
to men, greater work commitment among women appears to be demanded for achieving and required for performing successfully in management.

Review of the literature suggests conflicting conclusions and logic leads in several different directions. Therefore, an important focus of the present investigation of commitment to work and its psychological impact is the existence of differences or similarities based on gender.

**Achievement Motivation**

The final area of literature relevant to exploring the work commitment among women and men pertains to achievement motivation. The achievement motive has been an object of research for many years, and traditionally considered a unitary construct, assessed via projective techniques (McClelland, Atkinson, Clark, & Lowell, 1953). Although objective measures of achievement motivation, demonstrating some validity, have been developed, (e.g., Mehrabian, 1968), correlations among these and projective measures have been disappointingly low (e.g., an average of .08 for eight scoring systems; Weinstein, 1969). One of the several attempts to resolve this assessment controversy (Helmreich & Spence, 1977; 1978; Spence, Helmreich, & Stapp, 1975), is particularly relevant to the study of work commitment.
Spence and Helmreich (1979) sought to provide an objective measure to assess achievement motivation and attitudes toward family and career. The underlying assumption was that long-range goals represent an important influence on the strength and quality of achievement behavior. During the course of instrument development, it was concluded that a multidimensional, rather than unitary, conceptualization of the achievement motive would have greater heuristic and explanatory value. Therefore, a set of related components influenced by outside concerns was proposed to reflect achievement motivation, and the Work and Family Orientation Questionnaire (WOFO) was designed to supply a meaningful index of the construct.

Originally, Spence and Helmreich (1978) identified four dimensions of need for achievement, which were designated 1) Work Orientation, 2) Mastery, 3) Competitiveness, and 4) Personal Unconcern. Work Orientation refers to the desire to work hard and to stay busy; Mastery refers to the desire for intellectual challenge and a drive toward internal standards of excellence; Competitiveness refers to the desire to be successful in interpersonal competition; and Personal Unconcern refers to the lack of concern regarding possible negative interpersonal consequences of achievement.

However, as development of the WOFO has progressed, research results regarding the dimension of Personal
Unconcern have been considered disappointing (Spence, Personal Communication, 1982), indicating no sex differences of interest, no meaningful correlations with other scales, and no significant relationships with performance measures. Therefore, in continuing investigation of achievement motives, the constructs of interest have been Work Orientation, Mastery, and Competitiveness.

Early studies utilizing the WOFO were designed primarily to test the conceptualization of need for achievement as multifaceted, and to pursue psychometric assessment of the instrument. Combining data from several sources, analyses were made of WOFO scores in a sample of 606 male and 849 female college students, a sample of 70 male athletes (Helmreich & Spence, 1977) and a sample of 125 male and 25 female scientists (Helmreich & Spence, 1978). Outcomes were correspondent with predictions: scientists demonstrated greater Work Orientation and Mastery than the other groups; athletes indicated the greatest Competitiveness, and scientists exhibited the least Competitiveness, compared to the other samples.

Further consideration of the data specified above revealed sex differences (Helmreich, Beane, Lucker, & Spence, 1978). Male students scored higher on Mastery and Competitiveness, while female students reported higher Work Orientation, when analyses were based on responses
of women versus men. Similarly, male scientists indicated higher Competitiveness, and female scientists demonstrated greater Work Orientation when these two groups were compared. In contrast, however, women in the sample of scientists were characterized by higher levels of Mastery than were the men.

The work of Spence and Helmreich and their colleagues has provided evidence suggesting association of the achievement motives and gender, i.e., Work Orientation, the desire to work hard, seems more likely to exist in greater degrees among women, Competitiveness seems more apparent in male samples, and no clear differentiation has been observed for the Mastery dimension.

Although no research to date has linked the concepts of work commitment and the achievement motives, relationships can be postulated. There is an apparent similarity between commitment to work and the Work Orientation dimension of achievement motivation, suggesting that a high positive correlation would be expected. Assessing the relationship between these two constructs, then, may provide additional validation of the WAQ.

The second achievement motive, Mastery, might be predicted to vary with the level of commitment to work. As the drive toward excellence approaches perfectionistic, and therefore less healthy proportions, the likelihood of Mastery and detrimental work commitment correspondence
increases. Thus, different levels of Mastery may be representative of healthy versus less healthy degrees of work involvement.

It is the Competitiveness dimension of need for achievement, however, that promises the greatest probability of differentiating positive and negative degrees of work commitment. Research conclusions (Machlowitz, 1980), popular conceptions of workaholic behavior (Oates, 1971; Rohrlich, 1980), and also descriptions of the Type A personality (Friedman & Rosenman, 1959), describe "a profound inclination and eagerness to compete" as a salient characteristic. Although some degree of desire to prevail over others may be implicit in high levels of commitment to work, the intensity of competition seems critical to distinguishing maladaptive versus gratifying involvement with work. Strong Competitiveness, then, would be expected to correspond to higher, excessive work commitment.

That competition may have potential deleterious effects on attainment has been illustrated in research regarding the achievement components (Sanders, 1980). A sample of 43 business men with graduate degrees was classified into four groups, based on median splits of WOFO scale scores for Competitiveness and the combination of Work Orientation and Mastery. Income was used as a criterion of success. Contrary to expectations, the
group reporting high Work-Mastery and high Competition ranked third in income level, while the greatest income was received by the group with high levels of Work-Mastery along with low Competition. Other studies of achievement motives and performance, exploring samples of college students (Helmreich & Spence, 1978), various scientists (Helmreich, Beane, Lucker, & Spence, 1978), and psychologists (Helmreich, Spence, Beane, Lucker, & Matthews, 1980), have produced similar patterns. Such evidence, suggesting that competition can detract from the achievement of a goal (income, scientific citations, grade-point average) may be interpreted as support for contentions that competition is a significant factor in positive versus negative commitment to work, and furthermore, that too much work involvement results in less effectual work performance. In other words, competition is apt to be a factor in greater commitment to work, and research conclusions suggest that excessive-and-detrimental levels of Competitiveness exist, just as excessive-and-detrimental levels of work commitment are suggested to exist.

In sum, including achievement motives as a focus of investigation, along with sex differences, in the study of high levels of commitment to work, promises increased understanding. Clarification of the impact of mastery needs and competition on work-related behavior represents
an important step in identifying correlates of workaholism or excessive-detrimental work commitment.

Summary

The preceding sections have presented and discussed research concerning high levels of commitment to work and workaholism, sex differences in vocational behavior, and achievement motives in relation to work commitment. A major conclusion was that the concept of commitment to work is as yet poorly understood. Despite considerable attention in the popular press, scientific evidence regarding workaholism is meager. In the literature reviewed, a need for increased understanding was recognized, and a means for continuing investigation was revealed. The WAQ was designed to identify high levels of commitment to work, and further, to distinguish positive from maladaptive work behavior and attitudes. Both the process of instrument development and study of the interaction between work and psychological health need to be pursued.

Conflicting conclusions were prompted by a review of research pertaining to women and work. Evidence indicated that sex differences exist in occupational experience and behavior, and also suggested the likelihood of psychological impact upon work commitment. However, because neither the nature nor the impact of differences related to sex is clear, a focus on
comparison of employed women and men is necessary in the study of work commitment.

Finally, literature regarding achievement motivation conceptualized as multi-dimensional was considered. The work orientation, mastery, and competitiveness dimensions, and their postulated relationships to work commitment levels promised further understanding of work addiction.
CHAPTER III
METHOD

Subjects

Two primary concerns dictated selection of an appropriate sample for investigation of high levels of commitment to work among women and men. First, if strong work commitment were to be expected, subjects needed to be engaged in work that demands, or at least encourages, intense involvement and investment. Implicit in such work is some degree of autonomy, substantial responsibility, and favorable prospects for upward career mobility. Second, if extraneous variables associated with the work itself were to be eliminated in exploration of sex differences, male and female subjects needed to be pursuing identical occupational activity in the same work environment.

An occupation meeting the first criterion, and also frequently mentioned in discussions of workaholism and Type A behavior, is that of sales management. Although sales management positions are primarily filled by men, increasing numbers of "nontraditional" women have begun to enter this profession. Therefore, a sample of sales
managers, i.e., women and men at the same level in the same occupation, would facilitate comparisons of work commitment levels and exploration of sex differences.

Accordingly, all of the 120 women and an equal number of men employed by a local company in the capacity of Territory Manager were asked to participate in the present study, providing a potential subject pool of 240 male and female managers. A sample of 108 women and 105 men, a total of 213 (89%) was obtained. In an effort to match pairs of subjects according to tenure in the position, company records were consulted, and men were selected from the training classes which included women. Since sales territories are located throughout the country, these subjects represent a national sample.

Instruments

Described in this section are the two instruments used in assessing 1) levels of commitment to work, and 2) dimensions of achievement motivation.

Commitment to work. Measures of work commitment levels and the degree of psychological health associated with work involvement were obtained using the Work Attitudes Questionnaire (WAQ; Doty & Betz, 1981). The WAQ, presented in Appendix A, consists of two scales, i.e., Commitment and Health. The Commitment scale, designed to differentiate high versus low commitment to work, consists of 23 items regarding work-related attitudes
and/or behavior. Item responses are obtained on a 5-point scale, ranging from strongly disagree (1) to strongly agree (5). For one item which is stated negatively, the scoring is reversed. Responses to the 23 items are summed to yield a Commitment scale score; scores may range from 23 to 115, with higher scores reflecting greater commitment to work.

The Health scale was designed to assess the extent to which attitudes toward work, and subsequent behavior, represent psychologically healthy versus unhealthy work commitment. Response-format and scoring of the 22 Health scale items correspond to the Commitment scale described above. Four items in the Health scale are stated negatively and reverse-scored; scores may range from 22 to 110, with higher scores reflecting less psychologically healthy work involvement.

Commitment and Health scale scores are combined to provide a total WAQ score, which may range from 45 to 225. Higher total scores represent a high degree of work involvement and commitment with a component of intensity that would be maladaptive in terms of life balance and psychological health, i.e., excessive-and-detrimental commitment to work. In contrast, extreme-but-positive levels of commitment to work are represented by total WAQ scores in the mid-range, i.e., high scores on the Commitment scale balanced by lower scores on the Health
scale, or more balanced, psychologically healthy involvement in work. Low total scores would indicate an orientation toward life domains other than work.

Normative data for the WAQ were obtained in a sample of 93 male business managers (Doty, 1980). Scores on the Commitment scale ranged from 54 to 102 with a mean of 76.2 (SD=9.8); scores on the Health scale ranged from 44 to 96, with a mean of 64.7 (SD=11.8). Commitment scale scores greater than the mid-point of 69 were designated indicative of strong commitment to work; Health scale scores greater than the mid-point of 66 were designated indicative of excessive-detrimental work involvement.

Normative data for the WAQ have also been obtained for a sample of 102 women engaged in a variety of occupations (Sherrod & Betz, 1982). Total sample scores ranged from 37 to 91 on the Commitment scale, with a mean of 69 (SD=11.1); Health scale scores ranged from 27 to 91, with a mean of 57.5 (SD=10.9). Especially relevant to the present investigation are norms for a subgroup of 57 women doing work considered traditional for men, e.g., physicians, attorneys, and professors, reported by Sherrod and Betz. Scores on the Commitment scale ranged from 52 to 91, with a mean of 73.9 (SD=9.3); scores on the Health scale ranged from 37 to 91, with a mean of 61.2 (SD=10.2).
Evidence that reliability and validity for WAQ are adequate for experimental purposes has been reported (Doty & Betz, 1981). Internal consistency reliability coefficients (coefficient alpha) of .80 for the Commitment scale, .85 for the Health scale, and .90 for the total WAQ were obtained. Concurrent validity was indicated by positive, statistically significant correlations between WAQ scores and other measures of work commitment. Further evidence of construct validity was provided by results supporting the predicted distribution of WAQ scores in a sample of male managers (Doty, 1980).

Achievement motivation. Achievement motivation was considered a set of separate but related dimensions, and as such was assessed using the Work and Family Orientation Questionnaire (WOFO) developed by Helmreich and Spence (1978). The WOFO, presented in Appendix B, is a 32-item, two-part measure of achievement motivation and attitudes toward family and career. The first part consists of 19 items which focus on achievement motives. Scales derived from factor analyses of these motivational items were designated Work Orientation (6 items), Mastery (8 items), and Competitiveness (5 items). Work Orientation refers to the desire to work hard and stay busy; Mastery refers to the desire for intellectual challenge and a drive toward internal standards of excellence; and Competitiveness
refers to the desire to be successful in interpersonal competition.

In the initial multifaceted postulation of achievement motivation, and early formulation of the WOFO, a fourth factor was included. The additional dimension was designated Personal Unconcern, and referred to the lack of concern regarding possible negative interpersonal consequences of achievement. However, a series of subsequent investigations failed to provide support for the utility of the construct, and, as a result, recent research has focused on the three dimensions specified above (Spence, Personal Communication, 1982). Accordingly, the present study employed examinations of Work Orientation, Mastery, and Competitiveness, assessed by the WOFO, and omitted the four items representing Personal Unconcern.

Item responses are obtained on a 5-point scale. As calculated in the present investigation, scores may range from strongly disagree (1) to strongly agree (5). Two of the 19 items are worded so that reverse-scoring is required. Responses for each scale are summed to yield a total scale score; higher scores indicate greater degrees of the attribute specified in the scale. Work Orientation may range from 6 to 30; Mastery scores may range from 8 to 40; and Competitiveness scores may range from 5 to 25. Because individual scale differences would
be obscured by a global index, scores for the three scales are considered separately rather than in combination.

The second part of the WOFO consists of 9 items concerning educational aspirations, career expectations, and marriage and family. These items are not scaled, but rather are used primarily for classification purposes, and are generally most appropriate for student populations. Therefore, only the first part of the questionnaire was utilized in the present investigation.

Normative data for the achievement scales have been provided in samples of college students and varsity athletes (Helmreich & Spence, 1978), and psychologists (Helmreich, Spence, Beane, Lucker, & Matthews, 1980). Most relevant to the present population of interest, however, are data for male and female scientists (Helmreich, Beane, Lucker, & Spence, 1978). Mean scores on the three scales for men and women, respectively, were the following: Work Orientation, 20.7 and 22.1; Mastery, 21.2 and 24.2; and Competitiveness, 12.0 and 10.8.

Three successive versions of the WOFO have been produced in an effort to achieve satisfactory psychometric properties (Spence & Helmreich, 1978). For the final version, internal consistency reliability coefficients (coefficient alpha) of .66, .62, and .76 were reported respectively for the Work Orientation, Mastery, and
Competitiveness scales. Evidence for validity of the measure was provided by comparisons of scores from selected populations (Helmreich & Spence, 1978), and by predictions of scientific attainment (Helmreich, Beane, Lucker, & Spence, 1978), college grades (Helmreich & Spence, 1978), and income (Sanders, 1978).

Procedure

Subjects were mailed a packet containing two cover letters, the set of questionnaires, and a return envelope. The first cover letter (presented in Appendix C) explained the purposes of the study and requested participation. The second letter (presented in Appendix D) was a statement from the company management indicating interest in the research, urging cooperation, and stressing anonymity for respondents. It was expected that the second letter would affect a high response rate and encourage honest, accurate responses to the questionnaire items.

The following instruments were assembled for mailing: 1) the Work Attitudes Questionnaire (WAQ), 2) the Work and Family Orientation Questionnaire (WOFO), and 3) a demographic information form (presented in Appendix E), requesting total number of years in the work force, length of employment in current occupation, tenure with this company, present age, marital status, and number of children. It is possible that responses to one instrument could influence responses to the other. Therefore, half
of the women and half of the men, selected randomly, received packets presenting the WAQ first and the WOFO second; for the other half of the sample the order was reversed. Subjects were instructed to respond to the questionnaires in the order in which they appeared in the set. Estimated time required for completion of the instruments was half an hour. All materials were returned by mail. Completed questionnaires were received from 213 subjects, representing a return rate of 89%, with 108 women (90%) and 105 men (88%) responding.

**Data Analysis**

Data yielded by the present investigation included the following for each subject: 1) three scores based on the WAQ: an assessment of work commitment from the Commitment scale, an assessment of psychologically less healthy attitudes and behavior related to work commitment from the Health scale, and a total WAQ score reflecting the level of commitment to work; 2) three scores based on the WOFO: measures of work orientation, mastery needs, and competitiveness, obtained from the Work Orientation, Mastery, and Competitiveness scales.

Based on these data, the following hypotheses were tested:

1) The extent of work commitment would not differ among women and men.
2) The degree of psychological health associated with work involvement would not differ among women and men.

3) Achievement motives would not differ among women and men, i.e., a) work orientation, b) mastery, and c) competitiveness.

4) Work orientation would not differ among individuals indicating excessive-detrimental as compared to extreme-positive work commitment.

5) Mastery needs would be greater for individuals indicating excessive-detrimental work commitment than for those described as extreme-positive.

6) Competitiveness would be greater for individuals indicating excessive-detrimental work commitment than for those described as extreme-positive.

First, demographic data were examined to provide descriptive statistics for the sample. Male and female results were compared, using t-tests to determine the existence of sex differences. Total sample data were also analyzed.

Following sample description procedures, sex differences in work commitment were analyzed using t-tests for Commitment (Hypothesis 1) and Health (Hypothesis 2) scale scores, and for total scores. Further, chi-square analyses were conducted to examine the relationship between sex and categories of commitment to work.

Four categories of work commitment can conceivably be derived from combinations of high and low scores on the two WAQ scales, i.e., Commitment and Health. The
Excessive-Detrimental category includes high Commitment plus high Health scale scores. High Commitment plus low Health scale scores are categorized as Extreme-Positive work commitment. Low scores for both Commitment and Health scales indicate Other-than-Work commitment. A fourth combination, low Commitment plus high Health, is theoretically unlikely to occur, since high Health scale scores imply high work commitment.

The mid-point of each scale differentiates high from low scores, i.e., Commitment scores greater than 69 and Health scores greater than 66 are considered high. Low scores are equal to or less than the respective Commitment and Health scale mid-points.

A multivariate analysis of variance was used to investigate possible differences in achievement motivation related to sex (Hypothesis 3) and levels of commitment to work described above. The three dependent variables in the MANOVA were Work Orientation (Hypothesis 4), Mastery (Hypothesis 5), and Competitiveness (Hypothesis 6).

In addition, correlations between all work commitment and achievement motivation variables were obtained. Analyses were done separately as a function of sex, as well as for the total group.
Finally, to continue psychometric assessment of the WAQ, internal consistency reliability (coefficient alpha) was calculated for the Commitment, Health, and total scales.
CHAPTER IV
RESULTS

A prerequisite to careful consideration of research results and implications is adequate knowledge of the sample studied. Accordingly, this chapter will begin with a section providing information regarding the subjects investigated. Sample descriptive statistics will be followed by a second section examining the hypothesized relationships between levels of commitment to work and achievement motives, with attention to the possible influence or impact of sex differences. A third and final section will focus upon data relevant to the psychometric properties of the Work Attitudes Questionnaire (WAQ).

Descriptive Information

Table 1 presents data describing the sample of 213 subjects, 108 female and 105 male business managers. As shown in the table, the men and women were similar in age (M=31 years), in total years in the work force (M=9.5), and in tenure with the company of present employment (M=2.7). In contrast, male and female managers were significantly different (p<.01) in the number of years engaged in the present occupation, i.e., women were newer to the managerial role (M=3.0 years) than men (M=3.9 years).
Table 1
Sample Demographic Data with Sex Comparisons

<table>
<thead>
<tr>
<th>Variable</th>
<th>Male</th>
<th>Female</th>
<th>t</th>
<th>P</th>
<th>Total</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Age</td>
<td>31.3</td>
<td>5.2</td>
<td>31.0</td>
<td>5.1</td>
<td>.54</td>
<td>.59</td>
</tr>
<tr>
<td>Tenure with Company</td>
<td>2.9</td>
<td>2.4</td>
<td>2.4</td>
<td>1.9</td>
<td>1.70</td>
<td>.09</td>
</tr>
<tr>
<td>Years in Occupation</td>
<td>3.9</td>
<td>3.1</td>
<td>3.0</td>
<td>2.1</td>
<td>2.54</td>
<td>.01</td>
</tr>
<tr>
<td>Years in Work Force</td>
<td>9.7</td>
<td>6.1</td>
<td>9.3</td>
<td>5.6</td>
<td>.47</td>
<td>.64</td>
</tr>
<tr>
<td>No. of Children</td>
<td>1.3</td>
<td>1.4</td>
<td>0.4</td>
<td>0.8</td>
<td>5.72</td>
<td>.01</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Marital Status</th>
<th>N</th>
<th>%</th>
<th>N</th>
<th>%</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single-never-married</td>
<td>20</td>
<td>34</td>
<td>54</td>
<td>31.5</td>
<td>25.4</td>
<td></td>
</tr>
<tr>
<td>Divorced-now-single</td>
<td>9</td>
<td>18</td>
<td>27</td>
<td>29.2</td>
<td>12.7</td>
<td></td>
</tr>
<tr>
<td>Widowed-now-single</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0.9</td>
<td>0.5</td>
<td></td>
</tr>
<tr>
<td>Total Single</td>
<td>29</td>
<td>53</td>
<td>82</td>
<td>49.1</td>
<td>38.5</td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>71</td>
<td>45</td>
<td>116</td>
<td>41.7</td>
<td>54.5</td>
<td></td>
</tr>
<tr>
<td>Divorced-remarried</td>
<td>5</td>
<td>10</td>
<td>15</td>
<td>9.3</td>
<td>7.0</td>
<td></td>
</tr>
<tr>
<td>Total Married</td>
<td>76</td>
<td>55</td>
<td>131</td>
<td>50.9</td>
<td>61.5</td>
<td></td>
</tr>
</tbody>
</table>
Also shown in Table 1 is that the majority of the total sample were married (61.5%). Of the remaining 38.5% of subjects who were single, 12.7% had been married previously and were divorced. Considering the sexes separately, the table shows a greater percentage of women (49.1%) than men (27.6%) reported being single, and more women (38.5%) than men (13.4%) were divorced. The final demographic characteristic, number of children, indicates that the sample as a whole had less ($M=0.9$) than the longstanding national norm of 2.5 children for American families (U.S. Bureau of Statistics, 1981). Further, a significant difference ($p<.01$) between male and female managers was revealed, with men reporting larger families ($M=1.3$ children) than women ($M=0.4$ children).

Assessments of work commitment for the sample are presented in Table 2. As shown in the table, means for the Commitment and total WAQ scales (78.7; 142.5) were above the theoretical mid-points (69; 135). Conversely, the mean for the sample on the Health scale (63.8), was slightly below the theoretical mean (66). In combination these results suggest overall high but generally positive work involvement. No sex differences were detected in the WAQ scores.

Table 2 also presents levels of the achievement motive dimensions assessed by the WOFO scales. According
Table 2
Sample Descriptive Statistics with Sex Comparisons

<table>
<thead>
<tr>
<th>Variable</th>
<th>Male</th>
<th>Female</th>
<th>t</th>
<th>p</th>
<th>Total</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Commitment</td>
<td>77.9</td>
<td>9.3</td>
<td>79.5</td>
<td>8.8</td>
<td>78.7</td>
<td>9.1</td>
</tr>
<tr>
<td>Health</td>
<td>63.4</td>
<td>10.6</td>
<td>64.2</td>
<td>10.4</td>
<td>63.8</td>
<td>10.5</td>
</tr>
<tr>
<td>WAQ Total</td>
<td>141.3</td>
<td>17.8</td>
<td>143.7</td>
<td>16.6</td>
<td>142.5</td>
<td>17.2</td>
</tr>
<tr>
<td>Work Orientation</td>
<td>27.2</td>
<td>3.4</td>
<td>28.2</td>
<td>2.2</td>
<td>27.7</td>
<td>2.9</td>
</tr>
<tr>
<td>Mastery</td>
<td>30.2</td>
<td>4.0</td>
<td>30.6</td>
<td>4.1</td>
<td>30.4</td>
<td>4.0</td>
</tr>
<tr>
<td>Competitiveness</td>
<td>21.1</td>
<td>3.2</td>
<td>20.3</td>
<td>3.0</td>
<td>20.9</td>
<td>3.1</td>
</tr>
</tbody>
</table>

aN=105

bN=108
to the table, the entire range possible was covered in the sample scores on the Work Orientation (6-30), and Competitiveness (5-25) scales. The remaining scale, Mastery, which may range from 8 to 40, generated scores from 16 to 40 in the present sample. Total mean scores, reported in Table 2, were relatively high for each of the three dimensions of need for achievement, as were mean scores shown separately according to sex. Thus, despite wide variability, these data suggest that the managers studied possess, collectively, strong achievement motives, with women reporting significantly greater Work Orientation (p<.01) than men (28.2 versus 27.2 respectively), and no differences between male and female managers in the Mastery and Competitiveness dimensions.

Figure 1 shows the distribution of subjects into categories based on levels of work commitment. Classification of subjects was determined using a high-low split of the Commitment and Health scales; the theoretical means of 69 for Commitment and 66 for Health were used to differentiate "High" and "Low" categories on each scale. Using this method of assessment, subjects were classified into one of the following four categories of work commitment: 1) Excessive Commitment (scores above the theoretical mean on both Commitment and Health); 2) High Commitment (scores above the theoretical mean on Commitment and equal to or below the theoretical mean
Figure 1
Distribution of Sample WAQ Scores into Work Commitment Categories

<table>
<thead>
<tr>
<th>Psychological Health Subscale&lt;sup&gt;a&lt;/sup&gt;</th>
<th>High</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXCESSIVE-DETREMENTAL COMMITMENT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total: N=82 (38%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women: N=41 (38%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men: N=41 (39%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EXTREME-POSITIVE COMMITMENT</td>
<td>Total: N=93 (44%)</td>
<td></td>
</tr>
<tr>
<td>Women: N=47 (44%)</td>
<td>Women: N=46 (44%)</td>
<td></td>
</tr>
<tr>
<td>Other-Than-Work COMMITMENT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total: N=0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women: N=20 (19%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men: N=18 (17%)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. High scores on the Psychological Health Subscale represent less healthy attitudes toward work involvement.

<sup>a</sup>Low $\leq 66 < High

<sup>b</sup>Low $\leq 69 < High
on Health); 3) Other-than-Work Commitment (scores equal to or below the theoretical mean on both Health and Commitment); and 4) Inconsistent Commitment (scores equal to or below the mean on Commitment and above the mean on Health).

As shown in Figure 1, female and male subjects were distributed similarly among the categories. Further, the majority of the total subjects (82%) were in the two commitment categories designated "Excessive" or "High". Of these 175 subjects, 82 (38%) indicated degrees of work commitment classified as Excessive, i.e., intense involvement including less healthy attitudes that have potentially detrimental consequences; 93 individuals (44% of the total sample) indicated high work commitment, i.e., heavy emphasis on work and career that is generally free of attitudes and behavior judged to be psychologically unhealthy. The other 38 subjects in the sample (18%) were classified in the Other-than-Work commitment category, i.e., less commitment to work, or more balanced involvement with work and other life areas. None of the managers was classified as Inconsistent, i.e., as having low commitment to work accompanied by less healthy attitudes. The Excessive and High categories, designated "Workgroups", were utilized in analyses of possible differences in motives to achieve in relationship to work commitment.
Levels of Commitment to Work and Achievement Motives

Presented in Table 3 are results of the multivariate analysis of variance of achievement motives by sex and workgroup. As indicated in the table, a significant multivariate $F$ was obtained for the main effect of sex ($F(4,168)=3.37$, $p<.01$). Subsequent univariate analyses, also reported in Table 3, revealed a statistically significant difference ($F(1,171)=6.33$, $p<.01$) in the level of the work orientation motive for male and female managers. No differences as a function of sex were disclosed in mastery or competitiveness.

In the multivariate analysis of variance results shown in Table 3, no significant main effect for workgroup was detected, though it is of interest to note that the univariate $F$-tests for mastery ($F(1,171)=4.05$, $p<.05$) and competitiveness ($F(1,171)=4.27$, $p<.04$) were statistically reliable. These results might be interpreted with caution due to the increased risk that the statistically significant univariate $F$-tests are chance findings.

A final consideration of Table 3 indicates no statistically significant interaction effects for sex and workgroup. Consequently, the univariate analyses performed for each dependent variable yielded no significant results.

Table 4 presents means and standard deviations of the three achievement motive dimensions across the two independent variables of sex and workgroup. These data
Table 3
Multivariate Analysis of Variance of Achievement Motives
by Sex and Workgroup

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>df</th>
<th>F</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>MS</th>
<th>F</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>h</td>
<td>e</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sex (A)</td>
<td>4</td>
<td>168</td>
<td>3.37</td>
<td>1</td>
<td>46.43</td>
<td>6.33</td>
<td>8.02</td>
<td>.57</td>
<td>19.80</td>
<td>2.13</td>
</tr>
<tr>
<td></td>
<td>(.01)</td>
<td>(.01)</td>
<td>(.45)</td>
<td>(.15)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Workgroup (B)</td>
<td>4</td>
<td>168</td>
<td>2.22</td>
<td>1</td>
<td>.28</td>
<td>.04</td>
<td>57.50</td>
<td>4.05</td>
<td>39.75</td>
<td>4.27</td>
</tr>
<tr>
<td></td>
<td>(.07)</td>
<td>(.85)</td>
<td>(.05)</td>
<td>(.04)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A x B</td>
<td>4</td>
<td>168</td>
<td>.56</td>
<td>1</td>
<td>11.37</td>
<td>1.55</td>
<td>3.20</td>
<td>.23</td>
<td>8.84</td>
<td>.95</td>
</tr>
<tr>
<td></td>
<td>(.69)</td>
<td>(.22)</td>
<td>(.64)</td>
<td>(.33)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Error</td>
<td>171</td>
<td>7.34</td>
<td>14.19</td>
<td>9.31</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. N=175. Numbers in parentheses underneath F-values represent probability levels.
Table 4
Means and Standard Deviations of Achievement Motives as a Function of Sex and Workgroup

<table>
<thead>
<tr>
<th>Work Orientation</th>
<th>Mastery</th>
<th>Competitiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>M</td>
</tr>
<tr>
<td>High</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>46</td>
<td>27.07</td>
</tr>
<tr>
<td>Women</td>
<td>47</td>
<td>28.57</td>
</tr>
<tr>
<td>Total</td>
<td>93</td>
<td>27.82</td>
</tr>
<tr>
<td>Excessive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>41</td>
<td>27.66</td>
</tr>
<tr>
<td>Women</td>
<td>41</td>
<td>28.15</td>
</tr>
<tr>
<td>Total</td>
<td>82</td>
<td>27.91</td>
</tr>
</tbody>
</table>
provide additional information to clarify the findings reported above. As illustrated in the table, women revealed greater levels of work orientation than did men. For both mastery and competitiveness, differences appeared to exist not according to sex, but rather, as a function of workgroup. All managers, women and men, characterized by excessive work commitment indicated higher levels of the mastery and competitiveness motives to achieve than did managers of both sexes in the high-positive group.

Data describing the correlations among measures related to work commitment and achievement needs are provided for the total sample in Table 5. As shown in the table, correlations among the three WAQ scores (WAQ total, Commitment, and Health) were statistically significant and of moderate to large magnitude. The relationship between the Commitment and Health scales (r = .55) suggests positive correspondence between greater commitment to work and less psychologically healthy responses concerning the role of work in one's life, and is supportive of previous research results (Doty, 1980). While achievement motive variables were found to have positive and highly significant relationships to each other, the correlations were of moderate magnitude. Such results, suggesting conceptually related but separate aspects of achievement motivation, are consistent with earlier findings reported
Table 5
Correlations of WAQ Scores
with Measures of Achievement Motives for Total Sample

<table>
<thead>
<tr>
<th></th>
<th>Commitment</th>
<th>Health</th>
<th>Work Orientation</th>
<th>Mastery</th>
<th>Competitiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>WAQ Total</td>
<td>.86***</td>
<td>.90***</td>
<td>.07</td>
<td>.23**</td>
<td>.26***</td>
</tr>
<tr>
<td>Commitment</td>
<td>.55***</td>
<td>.14*</td>
<td>.31***</td>
<td>.26***</td>
<td></td>
</tr>
<tr>
<td>Health</td>
<td>-.01</td>
<td></td>
<td>.10</td>
<td>.19**</td>
<td></td>
</tr>
<tr>
<td>Work Orientation</td>
<td></td>
<td>.36***</td>
<td></td>
<td>.27***</td>
<td></td>
</tr>
<tr>
<td>Mastery</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.44***</td>
</tr>
</tbody>
</table>

* p<.05
** p<.01
*** p<.001
in studies of achievement motivation as a multidimensional construct (e.g., Helmreich & Spence, 1978).

Correlations for the total sample, presented in Table 5, indicate significant positive relationships between Competitiveness and each of the work commitment scales ($r = .26$ for WAQ total and Commitment; $r = .19$ for Health). As illustrated in the table, similar relationships were found for Mastery with the WAQ total and Commitment measures ($r = .23; r = .31$, respectively). A small but statistically reliable correlation ($r = .14$) was found between Work Orientation and Commitment.

The correlational analyses of work commitment and achievement motive measures performed separately according to sex are presented in Table 6. As indicated in the table, there were similar results for women and men on the variables of interest. Correlations between the WAQ scales (total WAQ, Commitment, and Health) were positive, statistically significant, and of moderate to large magnitude. Slightly stronger relationships were suggested for men as compared to women for these work commitment variables; correspondence between Commitment and Health was greater for men ($r = .59$) than for women ($r = .50$).

For achievement motives, shown in Table 6, the greatest sex differences appeared in relationships between Competitiveness and the other measures. Correlations of Competitiveness with Commitment, WAQ total, and Health
Table 6
Correlations of WAQ Scores
with Measures of Achievement Motives for Women and Men

<table>
<thead>
<tr>
<th></th>
<th>Commitment</th>
<th>Health</th>
<th>Orientation</th>
<th>Mastery</th>
<th>Competitiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Female</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WAQ Total</td>
<td>.84***</td>
<td>.89***</td>
<td>-.01</td>
<td>.20*</td>
<td>.33***</td>
</tr>
<tr>
<td>Commitment</td>
<td>.50***</td>
<td>.13</td>
<td>.29**</td>
<td>.37***</td>
<td></td>
</tr>
<tr>
<td>Health</td>
<td></td>
<td>-.13</td>
<td>.07</td>
<td>.22*</td>
<td></td>
</tr>
<tr>
<td>Work Orientation</td>
<td></td>
<td></td>
<td>.40***</td>
<td>.23*</td>
<td></td>
</tr>
<tr>
<td>Mastery</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.39***</td>
</tr>
<tr>
<td><strong>Male</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WAQ Total</td>
<td>.88***</td>
<td>.91***</td>
<td>.10</td>
<td>.26**</td>
<td>.21*</td>
</tr>
<tr>
<td>Commitment</td>
<td>.59***</td>
<td>.13</td>
<td>.34***</td>
<td>.19*</td>
<td></td>
</tr>
<tr>
<td>Health</td>
<td></td>
<td>.05</td>
<td>.14</td>
<td>.19*</td>
<td></td>
</tr>
<tr>
<td>Work Orientation</td>
<td></td>
<td></td>
<td>.35***</td>
<td>.35***</td>
<td></td>
</tr>
<tr>
<td>Mastery</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.52***</td>
</tr>
</tbody>
</table>

* $p<.05$

** $p<.01$

*** $p<.001$
were of larger magnitude for women; correlations of Competitiveness with Mastery, and Work Orientation were greater for men. Results regarding relationships between Mastery and measures of work commitment revealed a similar pattern for women and men. Positive significant correlations were found for Mastery and Commitment, as well as WAQ total, with no suggestion of correspondence between Mastery and Health. A final consideration of Table 6 reveals no evidence to suggest the existence of a linear relationship between Work Orientation and the work commitment variables.

Work Attitudes Measures

In order to continue assessment of the psychometric properties of the Work Attitudes Questionnaire, analyses of internal consistency reliability were conducted. Based on present sample data, estimates of internal consistency reliability (coefficient alpha) were .75 for the 23 items of the Commitment scale, .79 for the 22 items on the Health scale, and .85 for the 45 items on the total WAQ.

Also pertinent to instrument development are data contained in Figure 1. In the distribution of subjects among work commitment categories, 41 women and 41 men (38% of the total sample) were characterized by Excessive commitment; 47 women and 46 men (44% of the total sample) received scores indicating High commitment; 20 women and 18 men (18% of the total sample) were described by
Other-than-Work commitment; and no subjects obtained scores suggesting Inconsistent commitment. In a sample of managers expected to exhibit high degrees of commitment to work, these results provide support for construct validity of the instrument, designed to differentiate high and low work commitment and, furthermore, to distinguish positive from detrimental levels of work involvement.
CHAPTER V
DISCUSSION

A need for continued investigation of work commitment at high levels was recognized by the present study. Specifically, the purposes were 1) to compare the extent of work commitment and the degree of psychological health associated with work involvement for women and men; 2) to explore relationships between extreme-but-positive versus excessive-and-detrimental commitment to work and the achievement motivation dimensions of work orientation, mastery, and competitiveness; and 3) to continue the validation process of the Work Attitudes Questionnaire.

In order to examine high levels of commitment to work among women and men, a sample of 213 corporate employees, 108 women and 105 men engaged in the same level of business management, was explored. Although demographic characteristics were not a central focus of investigation, examination of gender differences among the managers yielded some results of note. First, there were no significant differences between women and men in tenure with the company, an intended finding, since efforts were made to eliminate extraneous variables for
the study of sex differences in work commitment and involvement. Furthermore, no significant differences were revealed in age or number of years spent in the workforce by male and female subjects, but men did report more years of management experience. Such discrepancies in results for men versus women regarding tenure in the present position, total time of employment, and length of time involved in management activity, seem to reflect the gradual change in occupational status of women. In other words, women in the sample studied have advanced to management positions, albeit more slowly than the comparative sample of men.

Sample statistics suggest a second finding of interest, that career along with marriage and family are more compatible for men than for women. Such a conclusion is common in the literature regarding employed women generally, and women in management particularly. Female managers in the present study were more apt to be single (49%) than were male managers (28%); more women than men were divorced (39% and 14%, respectively); and, further, women in management, once divorced, were three times more likely than male managers to remain single (29% versus 9%). In addition, not surprisingly, a significant difference in family size was indicated. Male subjects reported an average of 1.3 children in comparison to an average of 0.4 for female subjects. These results are
consistent with previous research, suggesting once again the existence of home/career conflict for women, and the corresponding conclusion that men are more able to maintain marriage and family in combination with work in the marketplace.

A brief review of results beyond demographic data reveals more evidence of similarity than difference among women versus men. Both male and female managers demonstrated high but generally positive commitment to work, with no sex differences in Commitment (Hypothesis 1), Health (Hypothesis 2), or total WAQ scores. Likewise, no sex differences were apparent in the Mastery or Competitiveness factors of need for achievement. There was, however, significantly greater Work Orientation suggested for women relative to men (Hypothesis 3). Further analyses based on work commitment, i.e., extreme-positive as compared to excessive-detrimental levels of commitment to work, provided no clear indications of differences in the achievement motivation dimensions of Work Orientation (Hypothesis 4), Mastery (Hypothesis 5), or Competitiveness (Hypothesis 6).

The first two hypotheses, i.e., that no sex differences would be found in work commitment or psychological health, were stated in the null form, not because differences seemed unlikely, but rather, because compelling arguments can be presented in support of greater
work involvement for each of the sexes relative to the other. The existence of barriers that complicate career development for women, identified in the vocational literature, could increase female determination, effort, and commitment to work, or conversely, could effectively prevent women from attributing to occupation a level of commitment comparable to that of men. Therefore, there was no clear direction in predicting the extent of work commitment for women versus men, or the degree of psychological health associated with work involvement.

In the present sample of managers, no evidence was found that work commitment, or attitudes toward work reflecting degrees of psychological health, differ among women and men. A number of explanations may be considered in interpreting these results. One explanation is that women and men in the same career are indeed more similar to each other than different. Such a conclusion corresponds to previous research that has revealed greater differences between occupational groups than between sexes within careers, especially for women and men in occupations traditional for men (e.g., Shann, 1983).

Another explanation, related to the first, is that women engaged in non-traditional careers differ from the population of women in general, and so, may be less likely to respond in negative ways to the impact of deterrents to female career progress. Undoubtedly, some self-selection
process occurs, i.e., management requires specific skills and abilities, and offers special opportunities and responsibilities that appeal to certain individuals, be they male or female.

It should also be noted that a preponderance of research regarding women and work has focused on sex differences as a meaningful factor in examining career choice and entry. While destructively high commitment to work may be exhibited without respect to career stage (Machlowitz, 1980), workaholic behavior most often has been associated with the later period of adjustment and advancement, e.g., when work demands are likely to increase and executive heights may have begun to be achieved (Oates, 1971; Rohrlich, 1981). For this reason, i.e., the likelihood that addiction to work would be manifested, the sample of managers was selected, and for this reason, i.e., that career stages differ in character, sex differences may not be explanatory or heuristic in the study of work commitment. Conclusions based on existing empirical evidence to date, revealing differences between men and women in issues related to work, may not generalize to the present investigation.

Hypothesis 3 consisted of three parts corresponding to the three dimensions of achievement motivation. For the Work Orientation dimension, there was no support for the null hypothesis regarding sex differences. In comparison,
to men, the women in management indicated greater degrees of Work Orientation, a difference not large in magnitude, but statistically significant. That women would demonstrate more desire to work hard and stay busy corresponds to expectations of female behavior, beginning in early developmental stages. Little girls are generally more compliant, amenable to direction, and more willing to work hard in school. Thus the present results appear to reflect the impact of female socialization, even in a sample of women who have departed from the traditional role.

The null hypothesis, that there would be no sex differences, was supported for the Mastery dimension of achievement motivation. Contrary to prior conclusions, evidence of the current investigation suggested that levels of Mastery among male and female managers are not significantly different. Inconsistent results have been presented in earlier studies: male students reported higher scores on the Mastery scale than did female students (Helmreich & Spence, 1977), but in a sample of scientists, women demonstrated greater degrees of Mastery compared to the men (Helmreich & Spence, 1978). From present results it may be concluded that variables other than gender are instrumental in determining the Mastery needs of individuals in management, at least in the sample studied.

If outcomes of the present investigation concerning sex differences are to be attributed to the socialization
process, then women would be expected to exhibit greater Work Orientation, as was demonstrated and discussed above, and men would be expected to display greater Competitiveness. Previous research has suggested that men are more competitive than women (Helmreich & Spence, 1978; Helmreich, Spence, Beane, Lucker, & Matthews, 1980). However, present results regarding the Competitiveness achievement motive were not clearly supportive of such predictions. In comparison to female managers, male managers did report greater Competitiveness, though the difference was not statistically significant. The probability level of .07 does not justify conclusions of meaningful sex differences, but it does suggest the importance of further examination in future research. Nonetheless, according to data provided by the present study, similar levels of Competitiveness exist among women and men in management.

In the final three hypotheses, the focus shifted from sex differences to comparisons of work commitment levels and possible relationships to achievement motivation. It was predicted that no evidence of differences would be found in the Work Orientation dimension between positive versus less healthy commitment to work (Hypothesis 4). Expectations, based on the tendency toward denial which accompanies addiction (Kolb, 1971), were that no differences would be reported, not necessarily that no differences actually do exist. As anticipated, data
provided support for the hypothesis. Managers categorized by excessive-and-detrimental work commitment indicated a desire to work hard and stay busy that was no greater than that exhibited by managers characterized by extreme-but-positive work commitment. Present results, then, suggest similar Work Orientation for different work commitment levels. Whether a discrepancy exists between self-report and reality cannot be determined without additional investigation.

Different levels of the Mastery (Hypothesis 5) and Competitiveness (Hypothesis 6) achievement motives were predicted to be associated with different levels of commitment to work. No evidence of the hypothesized relationships was revealed in the present data. Nevertheless, indications regarding statistical significance were less than definitive. The group of managers described by excessive-detrimental work commitment reported greater drive toward internal standards of excellence and desire to succeed in interpersonal competition than did those managers manifesting extreme-but-positive work commitment. In each instance, the probability of a meaningful difference was at an acceptable level (.05 for Mastery; .04 for Competitiveness). These results cannot be interpreted without great caution, however, because the multivariate probability level for the work commitment groups was .07.
From the results cited above, the only valid conclusion to be drawn is that further inquiry into the possible role of Mastery and Competitiveness in high levels of work commitment seems warranted. In the present study, additional analysis indicated the existence of linear relationships, positive and of moderate magnitude, between Mastery and work commitment as assessed by the Commitment scale and total WAQ scores for the total sample. Thus, further examination provided further support for the potential link between levels of commitment to work and the Mastery achievement motive. However, there appeared to be no meaningful relationships involving Mastery and the dimension of psychological health in attitudes toward work commitment, when the Health factor was considered separately. Predictions that maladaptive levels of work commitment would include an intense and unrealistic striving toward excellence were not supported unequivocally in the present sample of managers.

In contrast to the findings for Mastery, a final focus on the Competitiveness dimension did reveal evidence of positive linear relationships with the Health scale, as well as with Commitment and WAQ total scores. Since high Health scale scores indicate less healthy attitudes and behavior, this evidence suggested that an increase in competition was accompanied by a decrease in the psychological health associated with work commitment.
In addition, Commitment and WAQ total scores appeared to vary with the degree of Competitiveness as predicted, confirming the postulated relationships.

Overall, the results regarding achievement motivation and positive versus destructive degrees of work commitment were conflicting and tantalizing. No clear evidence was provided to indicate either the existence or the lack of correspondence for work commitment levels with the Mastery and/or Competitiveness motives. The data did strongly suggest, however, that Work Orientation is not a salient factor in differentiating extreme-positive from excessive-detrimental categories of commitment to work.

Beyond exploration of the hypothesized relationships discussed above, a purpose of the present study was continued development and psychometric assessment of the Work Attitudes Questionnaire. Results obtained from administering the WAQ supported the postulated distinction between extreme and excessive work commitment, and provided evidence for the reliability and validity of the instrument.

Based on scores of the Commitment and Health scales, a large majority of the managers, expected to demonstrate strong work involvement and commitment, were classified in the two high commitment categories, while only a small percentage were characterized by Other-than-Work
commitment. Furthermore, most of the sample were in the positive work commitment group, although a relatively large number were categorized in the excessive work commitment group. Again, given the nature of sample and job characteristics, particularly the potential for advancement in management, such distribution seems reasonable. Thus, WAQ scores were in accordance with the conceptual interpretation of the commitment categories.

Considering the generally high levels of work commitment, ranges on Commitment, Health, and total scale scores were substantial. The variation among subjects indicates sensitivity of the scales to individual differences. These results in combination may also be interpreted as support for utility of the WAQ.

Evidence suggested moderate levels of homogeneity for the WAQ. Estimates of internal consistency reliability (coefficient alpha) were .75 for the 23 items on the Commitment scale and .79 for the 22 items on the Health scale.

Also pertinent to instrument development were relationships among the scales. Positive and highly significant correlations of moderate magnitude between the Health and Commitment scores suggested the scales are measuring conceptually related but separate aspects of work commitment. Similar results were found for male and
female managers, although among men the association between Commitment and Health appeared to be somewhat stronger. Overall, the WAQ seems to be appropriate for assessment of work commitment levels for individuals, regardless of gender.

In the present study of work commitment at high levels, a research area characterized by conflicting suggestions and lack of clarity, predications were necessarily tentative. Nonetheless, despite uncertainties surrounding outcome expectations, there was one fully anticipated finding. Evidence of a strong positive relationship for the Commitment and Work Orientation scales was predicted, based on seemingly similar conceptualizations of work commitment and work orientation. This finding was expected and intended to contribute to the construct validity of the WAQ. For the total sample, there was indeed evidence of a positive—but not strong—relationship. However, the data suggested no meaningful relationships between these variables when male and female managers were considered separately. Nor, in additional analysis, were Commitment and Work Orientation found to correspond similarly to the Health scale. Correlations for Commitment and Health were positive, of moderate magnitude, and highly significant ($r = .55; p < .001$); but in contrast, Work Orientation and Health appeared to have
no relationship \( (r=-.01; p<.87) \). Thus, unexpected outcomes, contrary to predictions were revealed.

Besides lack of impressive evidence for the notion of Commitment and Work Orientation correspondence, other predictions receiving no clear support in the present results, which have been discussed previously, include relationships between Mastery, Competitiveness, and the extreme-positive versus excessive-detrimental levels of work commitment. Several explanations might be offered for such curious findings regarding variables that appear logically related. It is possible, of course, that expectations were poorly formulated and without sound theoretical foundation. It is also possible that predicted relationships do not exist in the sample of women and men selected for examination. Still another possibility is that data analysis was inappropriate or inaccurate. However, careful consideration, deliberation, and precaution minimized the probability of these misconceptions and miscalculations.

The greatest promise of reasonable and useful explanation seems to lie within the measurement and distribution of scores for the variables investigated. Although in early developmental stages, the WAQ appears to be satisfactorily accruing evidence of reliability and validity. In the present study, both range and distribution
of scores were of acceptable utility for the instrument as a whole and for the two scales. For the WOFO scales, however, results were less favorable for correlational analysis. While initial examination of the scores suggested a broad range, subsequent scrutiny revealed skewed distributions and, in fact, severe restrictions in the range of scores. On the Work Orientation scale, 98% of the sample reported scores between 21 and 30; and more than half of the subjects were described by the two highest possible scores, i.e., 29 and 30. Unquestionably, the sample of managers demonstrated strong work orientation. However, it is likely that true relationships between the constructs of interest were not reflected accurately by results obtained using the WOFO scores. Continuing investigation is required to provide clarity.

Implications

The present study represents first an attempt to promote empirical attention to the concept of work commitment, and the theoretical distinction between individuals whose occupational activity is positive in nature and those whose work involvement manifests features of addiction. Major implications, then, derive from the promising utility of the WAQ as an assessment of work commitment.

A means for identifying potentially destructive commitment to work has both practical and heuristic value.
Once work commitment has been classified as excessive, counseling and organizational interventions would be possible, e.g., stress-management, life-planning, pre-retirement, and post retirement training. Of course, practical use of the WAQ must be contingent upon further development, refinement, and evaluation of the instrument.

Concomitant to continuing instrument development, the search for understanding detrimental work commitment needs to progress. Although much is presumed to be known about intense involvement with work, or workaholism, related characteristics, antecedents, consequences, and prognosis remain speculative. Identifying excessive levels of work commitment via WAQ scales can foster further investigation.

Implications beyond those deriving from development of the WAQ pertain to the second focus of the present research, i.e., sex differences. Analysis of sample characteristics for women as compared to men provided confirmation of prior, repeated conclusions regarding the existence and impact of home versus career conflicts for women. However, results for work commitment levels and the primary variables of interest produced few unequivocal indications of similarity or differences among the female and male managers. Further exploration, including replication of the present study, is especially needed in this area.
The final focus of examination was personality variables in relation to work commitment levels. Since results concerning achievement motivation, conceptualized as multi-dimensional, and assessed by the WOFO scales for work orientation, mastery, and competitiveness, were inconclusive, additional study seems warranted. The problem of restricted range in WOFO scores, which was discussed in detail previously, suggests that employing a sample more varied in levels of work commitment would be beneficial. Abandoning a search for the relevance of achievement motives to work commitment seems premature.

Limitations

Several limitations in the sample, measurement, and procedures of the present study suggest a need for caution in the interpretation of results. First, the sample was selected to provide meaningful study of sex differences among employed individuals expected to demonstrate high levels of work effort and commitment. Further, women and men with identical job descriptions and occupational environments were sought. Thus, purposeful restrictions were imposed in an effort to clarify results regarding the variables of interest. These results can be generalized only to men and women in entry-level management positions in the participating corporation.
Another limitation is the sample size relative to the number of items in the WAQ scales. Although factor analysis of the instrument is greatly needed, the number of subjects included in the current investigation is insufficient for such statistical assessment. Conducting an examination of the factorial content of the two scales would require a minimum of 450 subjects. By some standards, then, the sample explored may be considered small. However, the response rate of 89% was greater than usually reported when data are obtained by mail, and the total of 213 subjects compares favorably with sample sizes in other studies of employed individuals in one occupation.

Additional limitations must be recognized in conjunction with the instruments employed to assess the variables examined. As has been specified, the WAQ is in early stages of development, suggesting one important direction for continuing research, and underscoring the tentative nature of conclusions based on WAQ results. Similarly, despite relatively extensive research attention, the WOFO scales seem to possess less than impressive evidence of reliability and validity. Nonetheless, the multi-dimensional conceptualization of achievement motivation is valuable and, for reasons discussed earlier, seemed to promise increased understanding of the constructs of work commitment, and to be, therefore, an important focus of study.
The use of self-report questionnaire data as the sole means for assessing levels of commitment to work represents another limitation of the present research. To continue the process of instrument development and to provide accumulating evidence of construct validity for the WAQ, it is important to utilize other methods of identifying individuals who may accurately be considered workaholic, or addicted to work.

Finally, the present research is limited in terms of time. Factors influencing women's career development and work involvement are apt to change as sociocultural attitudes and norms change, and as increasing numbers of women engage in work that entails high degrees of responsibility and autonomy.

Summary

Questions addressed in the present investigation concerned the possibility that different degrees of commitment to their work might result from differences in the occupational expectations and experiences of women and men; and the possibility that attitudes toward work might be characterized by different degrees of psychological health for women in comparison to men. Another focus, which included further attention to sex differences, was exploration of the need for achievement in relation to work commitment. The three dimensions of achievement
motivation, i.e., work orientation, mastery, and competitiveness, were examined along with two levels of work commitment, i.e., 1) extreme but life-enhancing and positive, and 2) excessive and detrimental.

Results of comparisons between 105 male and 108 female managers indicated that commitment to work and corresponding psychological health were very similar. However, that is not to say there are no sex differences in work commitment. Women reported significantly greater work orientation, while there was a suggestion of greater competition for men. It is possible that women and men within the same occupation have equally strong commitment to and involvement in their work, which is different in nature and manifested in different ways. A special willingness among women to work hard and a tendency among men to be more competitive parallel male and female stereotypes, and suggest that socialization experiences may continue to influence work behavior, even for women in a non-traditional occupation.

Finally, further evaluation and psychometric assessment of the WAQ, designed to facilitate investigation of high levels of commitment to work, was accomplished. Evidence confirming earlier suggestions of reliability and validity provided support for the utility of the developing instrument. It is hoped that the WAQ will foster continued study and increased understanding of
levels of work commitment that are either extreme-but-fulfilling or excessive-and-debilitating.
APPENDIX A

Work Attitudes Questionnaire

Please indicate by circling the appropriate number the degree to which you believe the following statements describe your behavior and feelings. Responses are interpreted in the following manner:

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

1. I am almost always doing something productive. 1 2 3 4 5
2. I have many strong outside interests beyond my work. 1 2 3 4 5
3. I have difficulty finding time for family activities and vacations. 1 2 3 4 5
4. I worry a great deal about what I haven't gotten done. 1 2 3 4 5
5. I would rather stay at work and finish a task than leave something half-done and rush to get home. 1 2 3 4 5
6. No one has ever done a better job than I in my present position at work. 1 2 3 4 5
7. One project begets another...ad infinitum. 1 2 3 4 5
8. I cannot really respect others who are not willing to work as hard as I do. 1 2 3 4 5
9. I am rarely sick—and almost never during the work week. 1 2 3 4 5
10. No one has ever blamed family problems on my work. 1 2 3 4 5
11. I compete to win at everything, including games played with my family. 1 2 3 4 5
12. I get restless and irritable during a long weekend. 1 2 3 4 5
13. Dinnertime conversation always includes some reference to my work. 1 2 3 4 5
14. Weekends are reserved for family and friends. 1 2 3 4 5
15. I often dream about work. 1 2 3 4 5
16. I think about work in social situations. 1 2 3 4 5
17. Most of my reading is related to my work. 1 2 3 4 5
18. I often get "antsy" with nothing to do on vacations and holidays. 1 2 3 4 5
19. Circumstances force me to spend long hours at work. 1 2 3 4 5
20. Work frustrations come home with me. 1 2 3 4 5
21. My work is a constant source of gratification. 1 2 3 4 5
22. I feel vaguely guilty when not doing something productive. 1 2 3 4 5
23. About half of the social occasions in my home during the past year have been related to my work.  
24. My job seems to monopolize my time and energy even when I would like to get away from it for awhile.  
25. My family has never accused me of being more interested in my work than in them.  
26. My energy level is unusually high.  
27. I am rarely able to relax completely.  
28. My family would agree that I leave my worries at the office.  
29. I get more done than most people I know.  
30. If I were independently wealthy I would still work.  
31. I play (or would if I could) work-related material in my car on the way to and from work.  
32. Few people work as hard or are as dedicated and loyal as I am where my work is concerned.  
33. Personal decisions are often influenced by the expectations of those for whom I work.  
34. I lose track of time when engaged in a project for work.  
35. Frequently I find it necessary to go to the office during the weekend.  
36. My work responsibilities prevent involvement in community affairs.  
37. I feel uncomfortable when I'm not working.  
38. I usually take work home with me.  
39. I sometimes prefer staying late at work to being at home.  
40. I find myself smoking too much and/or drinking too much, generally restless and irritable when not working.  
41. I generally prefer work over other activities.  
42. In any situation outside of work my mind wanders frequently to problems or other aspects of my job.  
43. I often work after dinner.  
44. It is difficult for me to imagine not working.  
45. The feeling of a job-well-done could almost be described as intoxicating.
## Work Orientation Questionnaire

Please indicate by circling the appropriate number the degree to which you believe the following statements refer to yourself.

Responses are interpreted in the following manner:

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Slightly Disagree</th>
<th>Neither</th>
<th>Slightly Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

1. I would rather do something at which I feel confident and relaxed than something which is challenging and difficult. [1 2 3 4 5]
2. It is important for me to do my work as well as I can even if it isn't popular with my co-workers. [1 2 3 4 5]
3. I enjoy working in situations involving competition with others. [1 2 3 4 5]
4. When a group I belong to plans an activity, I would rather direct it myself than just help out and have someone else organize it. [1 2 3 4 5]
5. I feel that good relations with my fellow workers are more important than performance on a task. [1 2 3 4 5]
6. I would rather learn easy "fun" games than difficult thought games. [1 2 3 4 5]
7. It is important to me to perform better than others on a task. [1 2 3 4 5]
8. I worry because my success may cause others to dislike me. [1 2 3 4 5]
9. I find satisfaction in working as well as I can. [1 2 3 4 5]
10. If I am not good at something, I would rather keep struggling to master it than move on to something I may be good at. [1 2 3 4 5]
11. I avoid discussing my accomplishments because other people might be jealous. [1 2 3 4 5]
12. Once I undertake a task I persist. [1 2 3 4 5]
13. I prefer to work in situations that require a high level of skill. [1 2 3 4 5]
14. There is satisfaction in a job well done. [1 2 3 4 5]
15. I feel that winning is important in both work and games. [1 2 3 4 5]
16. I more often attempt tasks that I am not sure I can do than those I believe I can do. [1 2 3 4 5]
17. I sometimes work at less than my best because I feel that others may resent me for performing well. [1 2 3 4 5]
18. I find satisfaction in exceeding my previous performance even if I don't outperform others. [1 2 3 4 5]
19. I like to work hard. [1 2 3 4 5]
20. Part of my enjoyment in doing things is improving my past performance. 1 2 3 4 5
21. It annoys me when other people perform better than I do. 1 2 3 4 5
22. I like to be busy all the time. 1 2 3 4 5
23. I try harder when I'm in competition with others. 1 2 3 4 5
24. It is important for me to have a job in which there is opportunity for promotion and advancement. 1 2 3 4 5
25. I would like my mate to have a job or career that pays well. 1 2 3 4 5
26. It is important to my future satisfaction in life to have a job or career that pays well. 1 2 3 4 5
27. I would like my mate to have a job or career that brings recognition and prestige. 1 2 3 4 5
28. It is important to me to have a job or career that will bring me prestige and recognition. 1 2 3 4 5
29. It wouldn't bother me if my mate had a better job than I. 1 2 3 4 5
APPENDIX C

Request for Participation

Dear

Probably you would agree that your life is affected in many ways by the work that you do and the way you feel about it. This person-attitude-work relationship, partially because it is so complicated, has intrigued social scientists for years. Another reason for continuing interest in the subject is recognition that the work and worker interaction has important implications not only for individuals but also for business, industry, the economy, and society as a whole. Because our interest in further understanding of attitudes toward work is shared by the management of your company, we have been given permission to ask you to participate in our current research.

You may have reservations or some concern about the consequences of providing us with personal information. Please be assured that our procedures have been designed to ensure your complete confidentiality. First, questionnaires are coded by number only; your name will not appear in connection with any of the information you supply. Second, we are interested only in group patterns—the attitudes of professionally employed people as a whole. Thus, while your responses are important to an accurate assessment of group patterns, there will be no report of any individual's responses to the questionnaires. However, we will be happy to provide you with your own scores. If you are interested we will send you a more complete description of the study and a summary of the results when the work is finished next summer.

Enclosed are two questionnaires regarding attitudes toward work and an information form asking about your age, employment, and family. Please respond to the questionnaires in the order in which they appear. It is important that you respond to every item, but feel free to omit any you may find objectionable.

Your help would be extremely valuable to our research project, and we sincerely hope that you will choose to participate. Call or write if you have any questions. Please use the enclosed envelope to return all of the forms. Thank you for your consideration and your assistance.

Sincerely,

Maxene S. Doty, Ph.D.
Ph.D. Candidate
Department of Psychology
614-846-9741

Nancy E. Beta, Ph.D.
Associate Professor
Department of Psychology
614-822-4166

Enclosures

COLLEGE OF SOCIAL AND BEHAVIORAL SCIENCES
August 7, 1982

TO:
FROM:
SUBJECT: Work Orientation Questionnaires

Dear

You may be wondering whether there could be any benefit for the company or for you personally if you decide to spend the time to help with the research described briefly in the preceding letter. I believe there is long-range potential for both, and that the project is interesting as well as worthwhile.

My letter has two purposes. The first is to encourage you to participate ... for the sake of knowledge and in the name of Science (and it may even be fun). The second is to assure you that careful measures have been taken to protect the confidentiality of individual information. I am interested in the results for the Ross Team as a whole. So if you choose to take part, make a valiant attempt to answer the questions thoughtfully and as accurately as possible.

Thanks for cooperating.

Regards,

Don

/mw
APPENDIX E

Demographic Information Form

Demographic Information

Present age _____

Years to date in the workforce _____

Years to date in present occupation _____

Years employed by this company _____

Marital status: (please check one)

  _single/never married
  _married
  _divorced/now single
  _divorced/remarried
  _widowed/now single
  _widowed/remarried

Number of children _____

Would you like a summary of results? _____

Would you like your own scores? _____
APPENDIX F

Work Attitudes Questionnaire

Commitment Scale

I am almost always doing something productive.

I have many strong outside interests beyond my work. (R)

I would rather stay at work and finish a task than leave something half-done and rush to get home.

No one has ever done a better job than I in my present position at work.

One project begets another...ad infinitum.

I am rarely sick--and almost never during the work week.

Dinnertime conversation always includes some reference to my work.

I often dream about work.

Most of my reading is related to my work.

My work is a constant source of gratification.

About half of the social occasions in my home during the past year have been related to my work.

My energy level is unusually high.

I get more done than most people I know.

If I were independently wealthy I would still work.

I play (or would if I could) work-related material in my car on the way to and from work.

Few people work as hard or are as dedicated and loyal as I am where my work is concerned.

I lose track of time when engaged in a project for work.

Frequently I find it necessary to go to the office during the weekend.
My work responsibilities prevent involvement in community affairs.

I usually take work home with me.

I generally prefer work over other activities.

It is difficult for me to imagine not working.

The feeling of a-job-well-done could almost be described as intoxicating.

Note. (R) indicates reverse-keyed item.
APPENDIX G

Work Attitudes Questionnaire

Health Scale

I have difficulty finding time for family activities and vacations.

I worry a great deal about what I haven't gotten done.

I cannot really respect others who are not willing to work as hard as I do.

No one has ever blamed family problems on my work. (R)

I compete to win at everything, including games played with my family.

I get restless and irritable during a long weekend.

Weekends are reserved for family and friends. (R)

I think about work in social situations.

I often get "antsy" with nothing to do on vacations and holidays.

Circumstances force me to spend long hours at work.

Work frustrations come home with me.

I feel vaguely guilty when I am not doing something productive.

My job seems to monopolize my time and energy even when I would like to get away from it for awhile.

My family has never accused me of being more interested in my work than in them. (R)

I am rarely able to relax completely.

My family would agree that I leave my worries at the office. (R)

Personal decisions are often influenced by the expectations of those for whom I work.
I feel uncomfortable when I'm not working.

I sometimes prefer staying late at the office to being at home.

I find myself smoking too much and/or drinking too much, generally restless and irritable when not working.

In any situation outside of work my mind wanders frequently to problems or other aspects of my job.

I often work after dinner.

Note. (R) indicates reverse-keyed item.
APPENDIX H

Work and Family Orientation Questionnaire

Work Orientation Scale

It is important for me to do my work as well as I can even if it isn't popular with my co-workers.

I find satisfaction in working as well as I can.

There is satisfaction in a job well done.

I find satisfaction in exceeding my previous performance even if I don't outperform others.

I like to work hard.

Part of my enjoyment in doing things is improving my past performance.

Mastery Scale

I would rather do something at which I feel confident and relaxed than something which is challenging and difficult. (R)

When a group I belong to plans an activity, I would rather direct it myself than just to help out and have someone else organize it.

I would rather learn easy "fun" games than difficult thought games. (R)

If I am not good at something I would rather keep struggling to master it than move on to something I may be good at.

Once I undertake a task I persist.

I prefer to work in situations that require a high level of skill.

I more often attempt tasks that I am not sure I can do than those I believe I can do.

I like to be busy all the time.
Competitiveness Scale

I enjoy working in situations involving competition with others.

It is important to me to perform better than others on a task.

I feel that winning is important in both work and games.

It annoys me when other people perform better than I do.

I try harder when I am in competition with others.

Note. (R) indicates reverse-keyed item.
REFERENCE NOTES

1. Machlowitz, M. Personal communication, April, 1979.

2. Sherrod, K., & Betz, N. E. Personal communication, June, 1982.

REFERENCES


Friedman, M., & Rosenman, R. H. Association of specific overt behavior pattern with blood and cardiovascular findings. *Journal of the American Medical Association*, 1959, 96, 1286-1296.


Helmreich, R., & Spence, J. T. The secret of success. *Discovery: Research & Scholarship at the University of Texas at Austin*, 1977, 2, 4-7.

Helmreich, R., & Spence, J. T. The Work and Family Orientation Questionnaire: An objective instrument to assess components of achievement motivation and attitudes toward family and career. *JSAS Catalog of Selected Documents in Psychology*, 1978, 8, 35. (Ms. No. 1677)


Ilderied, S. D., & Powell, G. Sex-role identity and leadership styles: Different labels for the same concept? *Sex Roles*, 1979, 5, 613-626.


