A PROFILE OF JOB SATISFACTION
FOR GRADUATE PHYSICAL EDUCATION FACULTY MEMBERS

DISSERTATION

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The purpose of the present investigation was to develop a profile of graduate physical education faculty members in terms of job satisfaction, and to compare the top-20 ranked physical education departments against 20 other randomly selected physical education departments (Massengale & Sage, 1982).

The Job Descriptive Index (JDI) was used to measure the five different areas of satisfaction, while the Job Satisfaction Index was used to measure the overall job satisfaction. A questionnaire was also employed to measure selected demographic data. The number of subjects analyzed was 291.

Results did not identify a set of variables that was consistently related to job satisfaction. However, correlations revealed that among all factors, only salary consistently produced significant relationships with all six aspects of job satisfaction, indicating that higher paid faculty members were more satisfied. The factor "hours of teaching" also showed a consistent relationship with job
satisfaction, although not to the extent of salary, indicating that faculty members who taught less hours were more satisfied. Finally, results indicated that faculty were most dissatisfied with pay among all six aspects of satisfaction.

Univariate analysis of variance revealed that overall satisfaction and pay satisfaction of the top-20 departments' faculty members were significantly higher than non-top-20 departments' faculty members, although the actual pay between the top-20 and non-top-20 departments was not significantly different. A possible explanation is that more status is generally attached to the top schools and faculty members in those institutions conduct more research, therefore faculty members may take a great deal of satisfaction in this prestige. However, non-top-20 departments' faculty members, without this additional prestige and having lower production in research, might view the same salary as their colleagues in top-20 institutions to be less satisfying since they do not have status and prestige to fall back upon.
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CHAPTER I

INTRODUCTION

Since the industrial revolution, when advancing technology started to replace traditional craftsmanship with machinery, administrators and managers have been trying to identify the factors that lead to more productivity from the workforce. Not surprisingly, the initial research conducted by industrial psychologists was not concerned with the physiological or psychological welfare of the workers, but rather with improvements in productivity as a result of changes in the physical environment (Gruneberg, 1979).

The early studies in management sciences by Frederick Taylor (1911) and Elton Mayo (Roethlisberger & Dickson, 1939) centered around the theme of maximizing productivity of the workers by manipulating the environment. These studies were conducted using management's point of view. That is, the goal was productivity and the workers were used only as the means to that end. Managers soon adapted this new concept of "scientific management" and workers became more and more specialized in their jobs so that they could perform more efficiently on the assembly-line.

Eventually, especially after the Great Depression, managers realized that man is not a machine and that there
are limits to his tolerance of certain situations. Thus, in the long term, constant pressure for maximum output leads to complacency, absenteeism, and, ultimately, high turnover rates. These views led to the emergence of the "human relations" school, which assumes that job satisfaction leads to increased productivity. It also postulates that human relations, involving leadership behavior, supervisory behavior and informal social groups within the organization, leads to job satisfaction (Gruneberg, 1979).

Researchers, however, failed to demonstrate that social factors were critical in increasing productivity. Thus, the belief that job satisfaction was a major determinant of job performance, which was the reason for original interest in studying job satisfaction, was also disproved. This has not signaled an end to the interest in studying job satisfaction, because first, job satisfaction has become an important topic of study in its own right because of its importance as an indication of the quality of work life (Nedler, Hackman & Lawler, 1979). Second, satisfaction has also been proven to be a relatively strong determinant of absenteeism, tardiness, and turnover (Porter & Steers, 1973). Theorists realized that job satisfaction was influenced by a variety of factors instead of just by the environment or human relations. For example, Maslow's (1943) "Needs Hierarchy Theory" and its development by
Herzberg (1959) into the two-factor theory of job satisfaction were generally under the heading of "content theories", which give an account of the factors that are related to job satisfaction. Maslow classified human needs into five levels in a hierarchical order, whereas Herzberg divided factors affecting job satisfaction into two different sets, one affecting job satisfaction, and the other set affecting job dissatisfaction. The influence of these two theories led to numerous research studies which sought to prove the validity of their claims with varying results. Eventually, further development of the content theories led to new theories such as "process theories", "equity theory", "reference group theory" and "need and value fulfillment theories" (Gruneberg, 1979). These theories were the outgrowth of content theories, attempting to fill in the gaps that were not covered by the content theories. Essentially, these theories sought to identify some factors associated with job satisfaction. Numerous research studies, however, have found conflicting results concerning the relationship between job satisfaction and factors associated with job satisfaction, thus suggesting that variables associated with job satisfaction are job specific.

These results have prompted researchers to identify specific sets of variables for specific samples of workers.
One of the purposes of this investigation was to determine whether a selected set of variables is significantly related to job satisfaction of graduate faculty members in the field of physical education. Second, this study investigated, for the first time, whether the status of an institute that an individual serves has any relationship with job satisfaction. The subjects were divided according to Massengale and Sage's (1982) classification into two groups; one in the top-20 category and one in the non-top-20 category. The difference between the two groups in relation to job satisfaction was observed.

Questions
The present investigation was concerned with the following questions:
1. Is there a profile of job satisfaction for graduate physical education faculty members?
2. Does the status of the universities where the faculty members work have a significant relationship on their job satisfaction?

Statement of Problem
The problem of this study was to develop a profile of graduate physical education faculty members in terms of variables associated with job satisfaction.
Purposes of the Study

The first purpose of the present investigation was to determine the relationship between job satisfaction and selected variables for graduate physical education faculty members, and to profile the most important factors related to job satisfaction. The second purpose was to compare the top-20 ranked physical education departments (Massengale & Sage, 1982) against 20 other randomly selected physical education departments that are among the top 58 doctoral degree granting institutions (Massengale & Sage, 1982) in regard to job satisfaction as well as selected variables related to job satisfaction.

Delimitations

The study was limited to graduate physical education faculty members of the top-twenty colleges and universities and the graduate physical education faculty members of the twenty other universities and colleges randomly selected among the non-top-twenty schools ranked by Massengale and Sage (1982).

Definitions of Terms

1. Job satisfaction -- A pleasurable or positive emotional state, resulting from the appraisal of one's job or job experiences (Locke, 1976).
2. **Job dissatisfaction** -- The degree of discontent resulting from the appraisal of one's job or job experiences.

3. **Job Descriptive Index (JDI)** -- An instrument devised by Locke, Smith and Hulin (1965) to measure job satisfaction in the area of pay, promotion, supervision, type of work and people on the job.

4. **Job Satisfaction Index (JSI)** -- A scale devised by Brayfield and Rothe (1951) as a general index of job satisfaction inferred from attitude toward work (Appendix B).

5. **Teaching experience** -- The number of years an individual has taught since he/she began his/her teaching career.

6. **Top-twenty physical education departments in the United States of America** -- The top-twenty departments as ranked by Massengale and Sage (1982) in their article. The rankings were obtained by questionnaires sent to fifty-eight physical education departments that had granted at least 10 doctorates in physical education between 1959 and 1979. These questionnaires asked the respondents to rank the fifty-eight departments on two criteria: (1) the quality of the current graduate faculty in physical education, and (2) the effectiveness of the doctoral training program in physical education.
7. **Graduate physical education faculty member** -- Any physical education faculty member who teaches at least one graduate course in the current academic year.

**Significance of the Study**

One of the values of the study is to provide information concerning the relationship of the selected independent variables and job satisfaction in graduate physical education faculties. This study also examines the influence of status (i.e. top-20 vs. non-top-20) on a physical education graduate faculty member's job satisfaction. The understanding of the differences between the top-twenty and non-top-twenty institutions in terms of factors related to job satisfaction can provide physical educators and administrators with valuable information which they can utilize in planning and decision making concerning the promotion of job satisfaction.
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CHAPTER II

REVIEW OF LITERATURE

The review of literature is broken down into three separate sections including the historical background of the study of job satisfaction, the theoretical development of major job satisfaction theories, and variables associated with job satisfaction.

Historical background

Frederick Taylor (1911) conducted his famous study at the Bethlehem Steelworks in the pioneering years of management science. His study was involved with changing the fixed salary to a piece rate system and the addition of frequent rest periods between the working hours. Results showed a marked improvement in productivity after the experimental manipulation. The report of this study generated enormous interest in the industrial world, which led to numerous research studies in the field of management and productivity science.

In the 1920's, Elton Mayo conducted a series of studies of historical importance at the Hawthorne Plant of the Western Electric Company (Roethlisberger & Dickson, 1939). The Hawthorne studies were much in the Taylor tradition,
examining ways to improve production by changing physical conditions. The first studies involved changes in illumination of the work area. The surprising result was that changes in illumination resulted in changes in productivity, whatever the direction of the change in illumination. Even when illumination was reduced to the level of moonlight, productivity increased. This interesting result was attributed to the fact that the subjects' increased productivity was due to the fact that they knew that the experimenters were taking an interest in them. This is known as the "Hawthorne effect", which means that an individual's change in behavior is caused by the experimental condition rather than the actual manipulation by the experiment.

The Hawthorne studies led to a number of other experiments which were interested in clarifying the role of "friendly supervision" as the cause of increased productivity. But, for a variety of reasons, including inadequate experimental design and the difficulty in interpreting the causal relationship between the numerous factors and the increase in production, they failed to demonstrate that social factors were critical in improving productivity (Gruneberg, 1979). However, these experiments eventually led to the "Human Relations" school of thought in organizational psychology. The Human Relations school
assumed that job satisfaction leads to increased productivity and that human relationships in organizations are the key to job satisfaction. Human relationships involve leadership behavior, supervisory behavior, and informal social groups within organizations (Grunenberg, 1979). Although it has since been proven that the assumption of a strong relationship between job satisfaction and productivity is weak, studies since Hawthorne have shown the importance of supervisory behavior and social relationships within workgroups on job satisfaction.

Hoppock's (1935) research on job satisfaction was perhaps the first major work to use survey methods and attitude scales in an examination of the problem. His view is that job satisfaction is affected by more than one factor. He was also the earliest theorist from the traditional approach of job satisfaction to assume that, if the presence of a variable in the work situation leads to satisfaction, then its absence will lead to job dissatisfaction, and vice versa.

One of Hoppock's studies analyzed the responses of 500 teachers to a questionnaire on different aspects of their job. He examined the differences between the 100 most and the 100 least satisfied and found that 21 per cent of the least satisfied teachers had parents with unhappy marriages, compared with 6 per cent of the most satisfied teachers.
These findings led to the more recent studies on the relationship between job satisfaction and mental health and on the relationship between job satisfaction and life satisfaction. Based on this theory, some individuals in the field suggested that, of all things, maintaining a good and harmonious human relationship is of the utmost importance to achieving job satisfaction. This theory dominated the administrative thinking until Herzberg came along with his two-factor theory.

Herzberg (1959) disagreed with both the "Human Relations" view that human relationships are of critical importance to job satisfaction and the traditional view that job satisfaction and dissatisfaction lay on a single continuum. His revolutionary "two-factor theory" of job satisfaction argues for two separate sets of factors that affect job satisfaction and dissatisfaction. He found, for example, that one can attain job satisfaction through work itself. Although Herzberg's theory came into considerable criticism by later scholars, his theory still has had a major influence on contemporary workers in the field of job satisfaction. We will discuss Herzberg's two-factor theory more in detail later on. Few contemporary scholars would adhere to any single historical school of job satisfaction, as it is generally accepted that job satisfaction can be affected by social conditions of the
work-space, as well as by the physical design of the job, payment, supervisory system and numerous other variables. Most importantly, the individual differences of each worker are now recognized. This view has prevented researchers from making generalized assumptions. In any event the study of job satisfaction, which started within this century, is still in a developmental stage. We now turn to some major theories.

Theoretical Development

Campbell (Campbell, Dunnette, Lawler & Weik, 1970) divided present-day job satisfaction theories into two categories, "content theories" and "process theories". Content theories give an account of the factors which influence job satisfaction, while process theories try to give an account of the process by which variables such as expectations, age, needs and values interact with the characteristics of the job to produce job satisfaction. Gruneberg (1979) further divided content theories into "traditional" and "two-factor" theories; while dividing process theories into "equity theory", "reference group theory" and "need and value theory".

Most of the studies on job satisfaction have focused on content theories, and in particular, Herzberg's two-factor theory. Current studies take into consideration the two-factor theory's general indication of various factors'
direction of influence when selecting their own independent variables. In contrast, process theories lack substantive research. Part of the reason is that the variables in process theories are hard to define operationally.

Content Theories

Job satisfaction involves fulfilling the needs of the workers, and one of the earliest need theories was Maslow's (1943) hierarchy of needs. Maslow divided needs into a lower and a higher order. The lower order needs are physiological needs, safety and security needs, social and affection needs; the higher needs are esteem needs, and self-actualization needs. Maslow stated that only when the lower order needs are fulfilled can people concern themselves with fulfilling the higher needs. In a job situation, this theory would predict that, after the lower order needs of security and pay have been satisfied, the employee will seek satisfaction and achievement from the work itself.

Maslow did not claim to explain job satisfaction, but because of its great appeal, a number of theorists have used his theory in this way and it has thus become the traditional theory. However, Locke (1976) pointed out some major drawbacks. First, there was no evidence for a hierarchy of needs, however appealing. Second, needs, no matter what level, cannot be satisfied by one consummatory act. There
are always "physical needs" and "esteem needs". There is even some evidence that satisfying certain needs leads to a strengthening of those needs rather than lessening them. Despite Locke's reservation, Maslow's theory does facilitate the findings on occupational level and job satisfaction. The workers in lower level occupations were likely to be motivated by lower level needs whereas those in higher level occupations are more likely motivated by higher level needs, since their lower level needs were already satisfied (Centers & Bufental, 1966).

One of the most important related content theories is Herzberg's (1959) two-factor theory of job satisfaction. There has been more research conducted concerning this theory than on all the other job satisfaction theories combined. Herzberg separates two factors, the first of which are "motivators". These are factors which, when present, lead to satisfaction, but when absent, do not. These factors include achievement, recognition and the intrinsic interest of the work itself. These correspond to the higher level needs of "self-autonomy" and "self-actualization" of Maslow's hierarchy of needs. The second group, "hygiene factors", are completely separate and distinct from the higher order factors. The absence or inadequacy of hygiene factors lead to dissatisfaction, but when present and adequate, do not necessarily lead to job
satisfaction. Hygiene factors are closely related to Maslow's lower level needs, including pay, security, and physical working conditions.

Herzberg's two-factor theory is different from the traditional theories. The factors that cause job satisfaction and dissatisfaction do not lie on a linear continuum, but rather with the motivators and the hygiene factors lying on two different planes pointing to opposite directions. Hygiene factors, such as pay, do not normally lead to feelings of satisfaction when they are good, except in the short term when they are newly introduced. But when pay is not adequate, it can lead to job dissatisfaction. Herzberg's argument is that hygiene factors are "context factors" which have little to do with deriving satisfaction from the job. They are necessary conditions for, but do not, by themselves, produce job satisfaction. Conversely, motivators such as achievement and recognition allow the individual to grow psychologically, and produce job satisfaction. But the absence of such motivators does not lead to job dissatisfaction. Herzberg (1966) also maintained that a mentally healthy individual will seek psychological growth from his job. He assumed that those who seek satisfaction from hygiene factors have characteristics which may add up to neurotic personalities.
Much controversy surrounds Herzberg's two-factor theory. In his original study (1959), his focus on engineers and accountants has been criticized as a far too narrow sample of the working population. Subsequent studies, however, using the same techniques on different populations essentially confirmed his findings with similar results. Herzberg used the critical incident technique in which workers are asked to think of a time when they felt exceptionally good or exceptionally bad about their present job or some other job they had. The results were that when talking about satisfying incidents, the hypothesized motivators were given more frequently, but not exclusively. Similarly, when talking of the feelings of dissatisfaction, the hypothesized hygiene factors were given more frequently, but not exclusively. Although Herzberg only pointed out a general trend of how motivators and hygiene factors coincide with job satisfaction and dissatisfaction, he nonetheless made conclusive statements on his theoretical position, eliciting much criticism from contemporary scholars.

Herzberg, for example, maintained that those who derive satisfaction from hygiene factors are poorly adjusted psychologically, and might even develop neurotic behavior. But Kasl (1973) supplied evidence that poor working conditions can cause poor adjustment. In many cases, such as where the job is dull and not challenging and where
psychological growth is not possible, a search for hygiene factors, such as money to satisfy oneself, is normal and healthy and not neurotic. Locke (1976) also pointed out that the lack of self-esteem, rather than seeking satisfaction from hygiene factors, seems to be a major factor in neurosis.

Indeed, studies such as those of Wall and Stephenson (1970) have indicated that motivators, rather than just contributing to job satisfaction, are more important factors in both job satisfaction and job dissatisfaction than are hygiene factors. Most experts currently hold this position. Furthermore, Herzberg had failed to integrate the motivators and the hygiene factors into a system that can indicate the overall job satisfaction.

There are quite a few studies in the field of education that support Herzberg's theory (Eckert, 1959; Avakian, 1971; Morris, 1973; Leon, 1974; Robbin, 1975; Frataccia, 1982; Trotter, 1984). Despite his many detractors, Herzberg made an immense contribution to the field of job satisfaction. Due to his contributions, one cannot just embrace the "Human Relations" school and ignore the importance of analyzing characteristics of the work itself in understanding of job satisfaction (Gruneberg, 1979). In terms of the present investigation, Herzberg's theory is particularly important for determining what variables are likely to affect job satisfaction.
Process Theories

Content theories as described by Campbell et al. (1970) identify the factors which make for job satisfaction and dissatisfaction. Process theories (Gruneberg, 1979) go one step further in describing the relationship between variables and their relationship to job satisfaction. Process theorists maintain that job satisfaction is determined not only by the nature of the job and its context, but also by the workers' needs, values and expectations. Hence, there are fewer studies in process theories than content theories. Specifically, each individual's needs, values and expectations are so different from others' and are affected by so many different factors. Yet, process theory has yielded three specific theories: job satisfaction as a function of the extent of the discrepancy between what the job offers, what the individual expects, what the individual needs, and what the individual values.

Equity Theory

Expectations give individuals a frame of reference by which they can judge the world around them. When the happenings in the world do not suit their expectations, they are often unhappy. In order to survive physically and, more importantly, mentally, they sometimes change their interpretation of the world in order to accommodate discrepant facts. Similarly, in a job situation, one uses frames of reference
concerning what kind of effort one should put forth in order to receive a certain kind of reward. Not only does one refer to factors related to the job, one also refers to outside factors such as how much a neighbor earns in comparison.

Equity theories predict job dissatisfaction for overpaid individuals as well as those underpaid. For example, Lawler and O'Gara (1967) discovered that underpaid individuals increased the quantity of output but at the same time reduced the quality of output. Although Pritchard, Dunnette and Jorgenson (1972) confirmed that under-reward leads to dissatisfaction, they also reviewed literature which gave limited evidence that overpaid workers are also dissatisfied. In essence, overpaid individuals usually develop a defense mechanism to blame the management or the system for overpaying them. Certainly, it is much easier to be satisfied for an overpaid individual than an underpaid one and this shows the inconsistency of the equity theory.

The relationship between the expectation of performing a certain role and the actual role performed is also very important to equity theory. Daniel (1971) examined the relationship between role differentiation and job satisfaction of faculty members in the departments of physical education and athletics in Ontario universities. Two hundred and eight full-time faculty members completed a
questionnaire designed to elicit data on job satisfaction and personal information. A positive relationship was found between job satisfaction and the fulfillment of role expectations and the role performed. Christian (1983) measured the discrepancy between the faculty members' and the department chairpersons' perception of the chairpersons' role. The results supported expectation theory in that the expectation discrepancy score explained the significant variance in job satisfaction. Indeed, Locke (1976) argued that the essential problem with equity theory is that it is so loosely applicable to each and every situation and thus it is able to account for almost anything.

Reference Group Theory

In equity theory, an individual compares his or her inputs and outputs from a job with those of others. But since a person's reference group could be any group within his work-space as well as outside of his work, theorists such as Hulin and Blood (1968) have argued that an understanding of what groups an individual relates to is of critical importance in understanding job satisfaction. Reference group theory is quite similar to equity theory. However, whereas equity theory views the problem of dissatisfaction from the point of view of expectation and equity, reference group theory identifies the problem of dissatisfaction responsible from an individual's reference.
For example, Klein and Mahler (1966) found that college educated managers were less satisfied with their pay than non-college-educated managers. One explanation was that college-educated managers have higher expectations of pay because of their education since they compare their pay to highly educated and highly paid groups, whereas non-college-educated managers compare their income to other lower educated and lower paid groups.

Reference group theory, however, leaves many questions unanswered (Korman, 1977). For instance, how do individuals choose their particular reference group? Why do reference groups have their special expectations? What constitutes a reference group? To answer these questions, Korman suggested that those with low self-esteem are influenced more by reference groups while high self-esteem individuals can afford to ignore the reference group whenever they choose. Basically, one has to know an individual's personality and background even to make an attempt to predict his reference group, and this is the essential problem of reference group theory.

The problem of expectations in relation to job satisfaction is quite complex. In some cases, the discrepancy between reality and expectation might lead to job dissatisfaction, but in other cases, it might not. However, an understanding of the personality, background,
expectations and reference groups involved would clearly help to understand how and why people behave in their jobs, which is the major contribution of reference group theory.

Need and Value Fulfillment Theories

Even though individuals are affected by reference groups, they do have their own values and needs which are different in content and extent from one another. For example, Kuhlin (1963) found that male school teachers wanted far more in terms of achievement from their job than female teachers. The discrepancy between what men wanted and what they received is far more pronounced than what women wanted and what they received. This of course has a direct relationship to their different views of job satisfaction. Since individuals differ in what they want from a job then others, need discrepancy theorists must examine how such differences affect job satisfaction.

Vroom (1964) suggested two forms of need fulfillment theory. The subtractive model argues that job satisfaction is negatively related to the degree of discrepancy between what the individual needs and what the job can provide to meet those needs. This theory, however, does not take into account the different degrees of importance that individuals attach to different needs. The multiplicative model argues that an individual multiplies the perceived amount of need fulfillment offered by the job by the
importance he attaches to those needs. A weighted value of an individual's needs helps the theorists to understand the relationship between individual needs and job satisfaction.

In the present study, the need and value fulfillment theories contribute to the identification of the different aspects of job satisfaction such as the needs for satisfaction with the work itself, satisfaction with supervision, satisfaction with the people one works with, satisfaction with pay and satisfaction with promotion etc. Establishing relationships between various factors and these aspects of job satisfaction can further enhance the possibility for administrators to create the best situation for job satisfaction.

All the theories discussed above have a common goal, the identification of factors relating to job satisfaction. The present investigation attempts to identify a set of variables for graduate faculties of physical education that are related to job satisfaction. The literature will now be reviewed concerning variables related to job satisfaction.

Variables Associated with Job Satisfaction

Many variables have been identified as being potentially related to an individual's job satisfaction. If specific relationships can be found, then administrators might be able to manipulate the environment to improve job satisfaction and, hopefully, improve the quality of teaching and
research. Of course, a causal relationship is seldom possible between any single variable and job satisfaction. Rather, most of the time, variables affect each other, producing integrated effects on job satisfaction, making it hard for researchers to isolate and identify the relevant variable. Even if a factor does not have a direct relationship to job satisfaction, it can have an indirect relationship by affecting those variables related to job satisfaction. For example, if a person married a wealthy spouse, he might become dissatisfied with his salary. While the salary itself is very compatible with his experience and tenure, his satisfaction might be affected by a variable (his marriage to a wealthy spouse) unrelated to his actual job. Even though it is hard, and sometimes futile to try to pin-point related factors, they are invaluable for discovering other factors closely correlated to job satisfaction. Since some factors are related to job satisfaction in one profession but not in another suggest that these factors are job specific. Hence, researchers need to include a variety of factors, regardless of previously conflicting results in other studies, when testing job satisfaction in different settings. The following section will provide brief reviews of literature concerning the independent variables that will be examined in the present investigation.
Age

Herzberg (1957) found a U-shaped relationship, showing that job satisfaction starts high, then declines, and then starts to improve again with increasing age. As individuals grow older, they adjust more to their work and life situation, and therefore become more and more satisfied with their jobs. Gruneberg (1979) explained further that, when a young person gets his first job, he gains a feeling of heightened self-esteem from being independent, grown up, and treated as an adult, and all these account for the high job satisfaction in an early career. Soon, however, one encounters increased financial responsibilities, job boredom, lack of opportunities for professional development, and promotion which all contribute to the drop in job satisfaction. As one grows older, working experience, status and knowledge also increases. Jobs are easier to find, pay is better, more authority is available, and work is generally more satisfying. Managers need to understand this U-shaped relationship between age and job satisfaction in order to anticipate dissatisfaction and counterproductive behavior in workers.

Hunt and Saul (1975) failed to find any relationship between age and job satisfaction for female workers, although the hypothesized U-shaped curve did exist with the male workers. Glenn, Taylor and Weaver (1977), however,
found that female job satisfaction increased with age. Saleh and Otis (1964) found that job satisfaction declined for five years before retirement, a reversal of the U-shaped hypothesis. A decline in health, with age, may affect job performance and enjoyment. Older workers are often phased out of active planning and projects and may have to take orders from younger employees. A feeling of being "put out to the pasture" induces resentment and depression. Yet, paradoxically, this situation also prepares an individual to accept retirement. Since one is now more dissatisfied with his/her job, it is easier to retire. Nedereen (1982) discovered a significant positive linear relationship between job satisfaction and age. However, Wezermes (1984) and Oades (1983) did not find any significant relationship. This controversy makes it imperative for the present study to include age as a factor.

Gender

There is much inconsistency in the findings on the relationship between job satisfaction and gender with some studies finding that females tend to be more satisfied than males, some vice versa, and some found no differences between the sexes (Hulin & Smith, 1964). For example, Schuler (1975) found that female employees value the opportunity to work with pleasant employees more than males, whereas male employees value the opportunities to influence
important decisions and supervise the work of others. This finding is consistent with Herzberg's (1957) claim that males regarded intrinsic job aspects as more important than females.

Manhardt (1972) and Bartol (1974) found that males are more concerned with long-term careers. Oyster (1975) surveyed the perceptions of college women physical educators on changes in departmental structure, job satisfaction and graduate work. Results indicated that most women taught and about half of them published, while anticipating future graduate work in the area of teacher preparation and curriculum. However, in 1975, only a few of the women held administrative positions. The majority of women in separate departments saw women as more professionally productive in 1975 than in 1970, and 73 per cent thought job and personal satisfaction to be higher. Most women in combined departments saw improved professional production for both men and women, but women had less job satisfaction. These findings bring us back to the question of whether gender itself is the difference or rather that our society treats male and female differently. Hulin and Smith (1964) argue that females are paid differently, have different opportunities for promotion and different job levels. If we were to change all these factors perhaps male and female job satisfaction would be the same. However, Oades (1983) and
Wezermes (1984) found no significant relationship between gender and job satisfaction. Glass (1983) further disproved two hypotheses: a) that women are not as achievement oriented and therefore value different non-job-related aspects of work, and b) that women feel defensive about their labor force participation because it is dissonant with traditional sex role expectations. Grahm (1980) found that in a college setting, men are more satisfied with advancement and security. Barclay (1981) found that the most satisfied female employees in a large corporation are traditional-oriented and those who did not perceive isolation from power acquisition situations. He also found that the least satisfied were the non-traditional oriented females who did perceive isolation from power acquisition situations.

Hence, the difference in job satisfaction between the sexes generally depends on the kind of job. For our purposes, since, in recent years, more and more women have become graduate faculty members in physical education, there is a need to determine the relationship between gender and job satisfaction in this area.

**Rank**

Academic rank for graduate faculty is generally classified as assistant professor, associate professor and full professor. Very few studies have attempted to
determine the relationship between rank and job satisfaction. However, in a study by Graham (1980), it was found that full professors were more satisfied with their advancement. Rank is usually related to some other factors like age, experience and tenure. In the present investigation, rank will be studied in relation to job satisfaction in graduate physical education faculties.

**Teaching Experience**

Both Butler (1961) and Wood (1973) showed that the length of service in the teaching profession is directly related to the degree of job satisfaction. Dissatisfied teachers usually change occupations, while satisfied teachers stay. Huber (1969), Kurth and Mills (1968), Keppele (1978) and Nedereen (1982) all found that as teaching experience increased, job satisfaction also increased. However, Buxton (1971), Moorehead (1979) and Wezermes (1984) discovered that no significant relationship existed between teaching experience and faculty job satisfaction. The present investigation is concerned with graduate faculty members of physical education departments and the relationship between their teaching experience and job satisfaction was examined.

**Tenure**

Although tenure provides security, status, monetary reward, and further career development, very few studies
have investigated its relationship to job satisfaction. Graham (1980) found that full professors were more satisfied with advancement. In addition, Fedler and Cauts (1982) discovered that tenured faculty members were more satisfied than nontenured faculty. However, senior faculty members received significantly more rewards and were more likely to believe that the rewards were distributed fairly. The present investigation's concern with the relationship between tenure and job satisfaction will serve to increase understanding of this particular factor for graduate physical education faculties.

Pay

Studies of pay have shown surprisingly conflicting results. According to some, pay is of little importance in relation to job satisfaction; while others show a positive relationship. For instance, in Opsahl and Dunnette's (1966) study in which about 42,000 individuals were asked to rank ten job factors in order of importance, pay came sixth. Lawler (1971) reported that workers ranked pay third, but also that most were dissatisfied with their pay. He further concluded from the findings of a series of studies that factors such as education, skill, job performance, age, seniority, sex, organizational level, time-span, non-monetary outcomes, amount of pay and payment method were all associated with satisfaction of pay.
Sometimes, it is not the actual amount of pay but rather the individual's perceptions of salary that determine job satisfaction. Specifically, what one considers fair for himself and for his reference group is the basis for the relationship between pay and job satisfaction. Hence, as Warr and Wall (1975) note in wage bargaining situations, where other comparable group receives a wage increase, your own group wants an increase.

In some occasions, pay is related to some aspects of satisfaction, as Graham (1980) found that faculty with salaries of $30,000 or over were more satisfied with advancement, security and compensation. Fedler and Cauts (1982), studying 300 professors, associate professors and assistant professors, found that most dissatisfaction concerned physical working conditions, salaries, and research support.

An important study by Opsahl and Dunnette (1966) reported that satisfaction with pay is not necessarily related to productivity, and thus to increase production, they suggest an incentive scheme. Warr and Wall (1975) suggested a three-tier incentive system: a) a basic salary for a person's security need (70 %), b) an element of individual or group incentive (25 %), and c) a percentage of the organization's profits (5%).
Despite Presthus' (1962) claim that highly educated people were increasingly seeking basic need satisfaction outside of the organization in the form of hobbies, community activities and their families, the fact remains that pay is mentioned time and again as one of the more important factor associated with job satisfaction. Caplow and McGee (1958) indicated such issues as supplementary opportunities and access to financially rewarding professional assignments in addition to institutional duties may be important to faculty members and greatly enhance resulting job satisfaction. Bornheimer, Burns and Dumke (1973) also indicated that salaries, including liberal fringe benefits, greatly influence job retention. To sum it up, Graham (1980) has concluded that different levels of pay produced different levels of satisfaction of faculty members. The present investigation will examine the relationship of pay and job satisfaction in graduate faculty members of physical education.

Length of Service at Present University

The length of service in a particular organization usually correlates with age and Wild and Dawson (1972) have found job satisfaction to be related to both age and length of service. However, Hulin and Smith (1970) reported an increase in job satisfaction with increased length of
service, while Gibson and Klein (1970) showed an opposite result.

It seems that age and working experience play a big part in determining the effect of length of service on job satisfaction. Hunt and Saul (1975) note the impracticality of attempting to develop a simple statement of the relationship between job satisfaction and employee age and length of service in an organization.

In the teaching profession, there might be a more stable influence on job satisfaction through length of service, especially in college teaching, where turnover rate is less than business and industry, and where in most cases an individual's tenure status can be transferred from job to job.

The Status of the University or College that a Faculty Member Received His/Her Highest Degree

There is no research on the relationship of job satisfaction and the status of the university or college where a faculty member received his/her highest degree. One of the major values of the present study will be providing information on this relationship.

The Status of the University or College that a Faculty Member is Currently Employed

Relatively few studies were concerned with the relationship of the status of higher education institutions
and job satisfaction. Caplow and McGee (1958) indicated that institutional prestige was one of the major reasons for faculty selecting employment or electing to stay at present employment. Brown (1965) also found that prestige and reputation of an institution ranked second among ten factors for selecting higher educational employment. The present investigation will focus on comparing job satisfaction of graduate physical education faculty members from top-20 and non-top-20 schools since there is no data in this area.

**Teaching Load**

Brown (1965) ranked teaching load sixth among ten factors that affected faculty members' selection and retention of jobs as well as influenced job satisfaction, thus concluded that teaching load was not a major consideration in job satisfaction. However, Bornheimer, Burns and Dumke (1973) found that teaching load flexibility, available secretarial and clerical assistance, and the perceived positive attitudes of the administration toward faculty members were considered factors producing high job satisfaction within faculty ranks.

Havens (1963) classified teaching loads, teacher drop-outs, and the general teaching environment into three areas of concern: a) the time spent at the task of teaching, b) the relationships between teachers and administrators,
and c) the facilities and opportunities available to a teacher. He found that teaching loads are more than the time spent by the teacher on their job, as it is also the psychological burden of the job. The National Education Association (1951) listed twenty-one factors that increase teaching loads, and none of them was related to time but rather to poor social relations and work environment such as high teacher/student ratio, limited facilities and inadequate clerical assistance. Yet a faculty member only has a limited amount of time to spend on different duties. For example, Schneider and Zalesny (1982) hypothesized that three different types of people are attracted to the academic setting: those who want to teach, those who want to do research, and those who want to do both. Besides what the faculty member wants, he also has to advise students and serve on various committees. The present study divided teacher load into four factors: time spent in teaching, research, advising students and serving on committees.
CHAPTER BIBLIOGRAPHY


Unpublished Doctoral Dissertation, University of Nebraska.


Frataccia, E. V. (1982). *Satisfaction of Hygiene and Motivation needs of Teachers Who Resigned from Teaching*. 


CHAPTER III

METHODS AND PROCEDURES

Subjects

Subjects were graduate faculty members in the physical education departments of forty Universities and Colleges, ranked in the top 58 in the country by Massengale and Sage (1982). Twenty institutions were selected because of their top-20 status as ranked by Massengale and Sage. The rankings were obtained by questionnaires sent to fifty-eight physical education departments that had granted at least 10 doctorates in physical education between 1959 and 1979. These questionnaires asked the respondents to rank the fifty-eight departments on two criteria: (1) the quality of the current graduate faculty in physical education, and (2) the effectiveness of the doctoral training program in physical education. The top-20 departments were ranked based on mean scores of the questions concerning these two criteria. Twenty non-top-20 schools were selected randomly from the remaining 38 schools on their list. The forty selected schools are listed in Appendix A. The total number of subjects surveyed was 574.
Independent Variables

The following independent variables were chosen as outlined in the review of literature. The data were collected by means of a questionnaire (Appendix B).

1. Age
2. Gender
3. Rank
4. Teaching Experience
5. Tenure
6. Length of service in present University
7. Salary
8. The university or college where a faculty member received his highest degree
9. The university or college where a faculty member is currently working
10. The number of hours a faculty member spent on teaching each week
11. The number of hours a faculty member spent on conducting research each week
12. The number of hours a faculty member spent on committees each week
13. The number of hours a faculty member spent on advising students each week
Dependent Variables

The five different areas of satisfaction including: work, supervision, people, pay and promotion are contained in the Job Descriptive Index (Appendix C). Overall job satisfaction was assessed by utilizing the Job Satisfaction Index (Appendix D). A detailed description of these instruments will now be provided.

Job Descriptive Index (JDI):

Locke, Smith and Hulin (1965), devised the JDI to measure job satisfaction in the areas of pay, promotion, supervision, type of work and the people on the job. The instrument consists of 72 items with 18 items in each of the subscales of work, supervision, and people, and nine items each in pay and promotion. Each grouping consists of a list of adjectives or descriptive phrases, and subjects are asked to put "Y" beside an item if the item described the particular aspect of his job, "N" if the item did not describe that subject, or "?" if he could not decide. A matched answer with the key scored 3, an unmatched answer 0, and "?" 1 point. The scores for pay and promotion are doubled for the sake of easier comparison. Each area can have a maximum total of 54 points. Corrected split-half internal consistency coefficients are reported to exceed .80 for each of the scales. Hulin (1966) reports evidence of stability over time. Drasgow and Miller (1982) reported
reliability coefficients of the five JDI scales as generally high, ranging from .85 to .94. Scheider and Dachler (1978) utilizing a Campbell and Fiske multitrait (JDI dimensions)-multimethod (Time 1-Time 2 administration) matrix found good stability coefficients ($r_{tt}$ of about .57) and also indicated that the JDI scales retained their relative independence over time (Appendix C). The JDI has been utilized in several studies investigating job satisfaction in college faculty (Quastel & Boshier, 1982; Christian, 1983; Oades, 1983 and Falck & Kilcoyne, 1985).

**Job Satisfaction Index (JSI):**

The JSI was used to measure the overall job satisfaction. Brayfield and Rothe (1951) devised this scale to be a general index of job satisfaction inferred from attitudes toward work, applicable across occupational categories. The JSI includes 18 items from a pool of 255, covering almost the entire attitude range. Likert scoring is applied to the scale using the Thurstone value to indicate scoring direction. Items at the satisfied end of the scale received 5 points for "strongly agree", 4 for "agree", 3 for "undecided", 2 for "disagree", and 1 for "strongly disagree". The unsatisfied end of the scale received 5 points for "strongly disagree", 4 for "disagree", 3 for "undecided", etc. The lowest possible score is 18 points, and the highest possible score 90 points, with a high score
representing satisfaction. The odd-even product moment reliability coefficients for a sample of 231 clerical female employees was .77, corrected by the Spearman-Brown formula to 0.87. In a validity test by Brayfield and Rothe (1951), the index was also able to distinguish between groups who were assumed to be differentially satisfied with their jobs, with the difference in means reported as being significantly different at the .01 level. The JSI has been utilized in several studies investigating job satisfaction in college faculty (Sinardi, 1982 and Light & Martin, 1984).

Procedure for Data Collection

Every graduate faculty member of the top-20 and the selected non-top-20 physical education departments was sent a package including the questionnaires, instructions, plus a cover letter explaining the purpose of the study as well (Appendix E). A stamped and addressed return envelope was also included. After four weeks, a reminder was sent to those subjects who had not returned the questionnaire. The acceptable return rate was set at 60 per cent.

Statistical Analysis

Pearson Product Moment Correlations were computed for all variables to provide an initial look at the relationships among all variables. A series of multiple regression analysis were then performed on all subjects to
Further determine the relationship between the criterion variables and the independent variables. Then, separate regression analysis were performed on faculty members from the top-20 and non-top-20 departments. Finally, univariate analysis of variance was performed, comparing faculty members from top-20 and non-top-20 institutions on their satisfaction scores.
CHAPTER BIBLIOGRAPHY


CHAPTER IV

RESULTS

Out of 574 questionnaires mailed out, 363 were returned, representing a 63 per cent return rate. However, 72 of these returns were rejected because of dissatisfactory status (i.e. retired or transferred) or incomplete data. Therefore, the total number of subjects used for data analysis was 291, with 173 from top-20 departments (59 per cent) and 118 from non-top-20 departments (41 per cent).

The Pearson Product-Moment Correlations were computed for all variables to provide an initial look at the relationships among the independent and dependent variables. Table I exhibits the means and standard deviations of the variables on all these groups.

A series of multiple regression analysis were then performed on all subjects to further determine the relationship between the predictor variables and the dependent variables. In addition, separate regression analysis were performed on the top-20 and non-top-20 faculty members. Finally, univariate analysis of variance was then performed, comparing top-20's and non-top-20's dependent variables on the different satisfaction scores.
### Table I

**Means and Standard Deviations of the Variables on Three Groups**

<table>
<thead>
<tr>
<th>Variables</th>
<th>All Subjects</th>
<th>Top-20</th>
<th>Non-top-20</th>
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<td>S.D.</td>
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<td>48.40</td>
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<td>Length of Service</td>
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<td>8.26</td>
<td>15.23</td>
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<tr>
<td>Salary (*)</td>
<td>34.92</td>
<td>8.11</td>
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<tr>
<td>Hours of Teaching</td>
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<td>12.88</td>
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<td>Hours of Research</td>
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<td>9.88</td>
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<td>Hours of Committee</td>
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<td>5.77</td>
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<td>Hours of Advising</td>
<td>6.02</td>
<td>3.87</td>
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<td>Work Sat. (#)</td>
<td>40.64</td>
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<td>Supervision Sat. (#)</td>
<td>41.97</td>
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<td>42.00</td>
</tr>
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<td>People Sat. (#)</td>
<td>41.63</td>
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<td>41.92</td>
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<td>Pay Sat. (#)</td>
<td>27.16</td>
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<td>Promotion Sat. (#)</td>
<td>31.87</td>
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<tr>
<td>Overall Sats. (@)</td>
<td>72.01</td>
<td>9.03</td>
<td>72.90</td>
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</table>

* In thousands of dollars: e.g. 34.92 = 34,920.00
# Out of a total score of 54 points.
@ Out of a total score of 90 points.

**Correlation Matrixes of Independent Variables**

Correlation matrixes revealed only low to moderate correlations between the independent and dependent variables (Table II).
## TABLE II
### PEARSON CORRELATION COEFFICIENTS

<table>
<thead>
<tr>
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<td>(0.431)</td>
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<td></td>
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<td>(0.005)</td>
<td>(0.001)</td>
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<td>(0.127)</td>
<td>(0.00)</td>
<td>(0.146)</td>
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<td>(0.072)</td>
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<td>(0.093)</td>
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### TABLE II -- CONTINUED

**PEARSON CORRELATION COEFFICIENTS**

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<td>-0.2109 (-291)</td>
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<td><strong>Hours of Research</strong></td>
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<td>P= 0.453</td>
<td>P= 0.346</td>
<td>P= 0.331</td>
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</table>

(Coefficient/ (Cases)/ 1-tailed significance)

Of all the independent variables, only salary consistently produced significant relationships with all six aspects of job satisfaction. Other independent variables such as age, rank, teaching experience, tenure and hours of teaching revealed low to moderate correlations on some aspects of job satisfaction, but none approached the level and consistency of the relationships between salary and all aspects of job satisfaction.
Multiple Regression Analysis

1. Work satisfaction

Work satisfaction for all subjects had a moderate relationship with salary (multiple R=0.34), with the variable "hours of teaching" entered on step number 2, improving the multiple R to 0.36 (Table III). This indicates the higher

<table>
<thead>
<tr>
<th>TABLE III</th>
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<tbody>
<tr>
<td>MULTIPLE REGRESSION ON TOP-20, NON-TOP-20 AND ALL SUBJECTS</td>
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<tr>
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<td></td>
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<td></td>
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<td></td>
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<td>.58</td>
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</tbody>
</table>

Key:

A = All Subjects
1 = Top-20 Subjects
2 = Non-top-20 Subjects
SLN = Length of Service
LA = Institution status
paid faculty members tended to have more work satisfaction, and those who were higher paid and taught fewer hours tended to have even higher satisfaction with work.

2. Supervision satisfaction

A relatively low, although statistically significant, relationship was found between supervision satisfaction for all subjects and salary (multiple R=0.24), indicating that the higher paid faculty members tended to have more supervision satisfaction. The variable "hours of teaching" was entered on step number 2, improving the multiple R to 0.30 (Table III), indicating those who were both higher paid and teaching fewer hours exhibited even higher satisfaction with supervision.

3. People satisfaction

People satisfaction for all subjects showed a relatively low relationship with salary (multiple R=0.21), and once again the variable "hours of teaching" entered on step number 2, improving the multiple R to 0.24 (Table III). Again, the indication was that higher paid faculty members tended to be more satisfied with people with whom they work, and those who were higher paid and teaching fewer hours were even more satisfied with the people with whom they work.

4. Pay satisfaction

The common assumption that higher paid people are more satisfied with pay was illustrated by the moderately high
relationship between pay satisfaction for all subjects and salary (multiple R=0.55), with the variable "gender" entered on step number 2, improving the multiple R to 0.56. The variable "hours of teaching" was entered on step number 3, improving the multiple R to 0.57, and finally, the variable "status of the university" entered on step number 4, increasing the multiple R to 0.58 (Table III). These results indicate that those who were higher paid, male, teaching fewer hours and working in top-20 universities tended to be the most satisfied with pay.

5. Promotion satisfaction

Promotion satisfaction for all subjects showed a moderate relationship with salary (multiple R=0.36), indicating that the higher paid faculty members tended to be more satisfied with promotion. The variable "length of service" was entered on step number 2, improving the multiple R to 0.43, and the variable "hours of teaching" was entered on step 3, increasing the multiple R to 0.44 (Table III). These results indicate that those who were higher paid, served longer in their universities and taught fewer hours tended to be even more satisfied with promotion.

6. Overall job satisfaction

Overall job satisfaction for all subjects reflected the most common characteristics of the different aspects of job
satisfaction, with a relatively low relationship with salary (multiple R=0.28), and the variable "hours of teaching" entered on step number 2, improving the multiple R to 0.31 (Table III). This finding reveals that faculty members with higher salary tended to be more satisfied with overall satisfaction, and those who were higher paid and teaching fewer hours tended to be even more satisfied.

For all subjects, the results generally indicated that salary is the most important independent variable, with low to moderate relationship with the dependent variables (satisfaction scores). The variable "hours of teaching" was entered on step number 2 with each dependent variable, indicating that although it was not of primary importance, it merits attention for its consistent appearance in the regression analysis. Gender, length of service and status of the universities were all entered on step number 2 to step number 4 on two occasions (pay satisfaction and promotion satisfaction), but generally with too low a relationship with the dependent variables to add any significance to the findings (Table III).

Multiple Regression Analysis on Top-20 Departments

1. Work satisfaction

Work satisfaction for faculty members in top-20 departments had a moderate relationship with salary (multiple R=0.30) (Table III), indicating that top-20 departments'
subjects who were higher paid tended to be more satisfied with work.

2. Supervision satisfaction

Much like all subjects, supervision satisfaction for top-20 department faculty members had a relatively low relationship with salary (multiple R=0.27). "Hours of teaching" was entered on step number 2, improving the multiple R to 0.32, and "gender" was entered on step number 3, increasing the multiple R to 0.36 (Table III). This indicates that faculty members in top-20 departments with higher salary tend to be more satisfied with supervision, and those who were higher paid, male, and teaching fewer hours appeared to be even more satisfied with supervision.

3. People satisfaction

People satisfaction for faculty members in top-20 departments was not associated with any independent variable.

4. Pay satisfaction

Pay satisfaction for top-20 department faculty members had a moderate relationship with salary (multiple R=0.55) (Table III), giving the obvious indication that those who were higher paid tended to be more satisfied with pay.
5. Promotion satisfaction

Promotion satisfaction for top-20 department faculty members again had a moderate relationship with salary (multiple R=0.31), indicating that faculty members in top-20 departments who were higher paid tended to be more satisfied with promotion. "Teaching experience" was entered on step number 2, raising the multiple R to 0.43, and "rank" was entered on step number 3, improving the multiple R to 0.46 (Table III). This finding indicated that those who were higher paid, had more teaching experience and were higher ranked tended to be even more satisfied with promotion.

6. Overall job satisfaction

The overall job satisfaction of top-20 department faculty members had a relatively low relationship with salary (multiple R=0.25) (Table III), indicating that those who were higher paid tended to be a little more satisfied with overall job satisfaction.

For faculty members in top-20 departments, salary again was the most important independent variable demonstrating a low to moderate relationship with all dependent variables except people satisfaction. The variable "hours of teaching" was entered once on step number 2 with promotion satisfaction, and rank was entered on step number 3 with promotion satisfaction (table III). However, their low and infrequent relationships did not merit much attention.
Multiple Regression on Non-Top-20 Departments

1. Work satisfaction

Work satisfaction for faculty members in non-top-20 departments had a moderate relationship with salary (multiple R=0.41), with "gender" entered on step number 2, improving the multiple R to 0.49 (Table III). This indicated that non-top-20 department faculty members who were higher paid and male tended to be more satisfied with work itself.

2. Supervision satisfaction

Unlike all subjects and top-20 department faculty members, where supervision satisfaction was associated with salary, supervision satisfaction for non-top-20 department faculty members had only a relatively low relationship with the variable "hours of teaching" (multiple R=0.24) (Table III), indicating that those who taught fewer hours tended to be more satisfied with supervision.

3. People satisfaction

People satisfaction for faculty members in non-top-20 departments had a moderate relationship with salary (multiple R=0.30), with "rank" entered on step number 2, improving the multiple R to 0.37. "Hours of teaching" was entered on step number 3, increasing the multiple R to 0.41 (Table III). This indicates that non-top-20 department
faculty members who were higher paid and taught fewer hours tended to be more satisfied with the people they work.

4. Pay satisfaction

Pay satisfaction for non-top-20 department faculty members had a moderately high relationship with salary (multiple R=0.56), again showing the obvious indication that higher paid non-top-20 departments' subjects were more satisfied with pay. "Gender" was entered on step number 2, improving the multiple R to 0.60 (Table III), indicating those who were higher paid and female tended to be even more satisfied with pay.

5. Promotion satisfaction

Promotion satisfaction for faculty members in non-top-20 departments had only a moderate relationship with salary (multiple R=0.31) (Table III). This result indicates that higher paid non-top-20 department faculty members tended to be more satisfied with promotion.

6. Overall job satisfaction

Overall job satisfaction for non-top-20 department faculty members had a moderate relationship with salary (multiple R=0.32) (table 3), which indicates that higher paid non-top-20 department faculty members tended to be more satisfied overall.

As with all subjects and faculty members in top-20
departments, salary is the variable most closely related to the dependent variables, showing a low to moderate relationship with all dependent variables except supervision satisfaction, where "hours of teaching" was entered on step number 1. Gender was the only variable entered on step number 2 on work satisfaction and pay satisfaction, slightly improving the variance level in both scores (Table III).

**Top-20 vs. Non-top-20**

To determine if the top-20 and non-top-20 department faculty members differed on job satisfaction, analysis of variance was employed. Top-20 department faculty members' pay satisfaction (mean=28.72) was significantly higher than faculty members from non-top-20 departments (mean=24.88, F(1,289)=5.63, p<.02). Top-20 department faculty members' overall job satisfaction (mean=72.90) was also significantly higher than non-top-20 department faculty members (mean=70.7, F(1,289)=4.19, p<.04). These results indicate that faculty members from top-20 departments were more satisfied with both pay and overall satisfaction than non-top-20 departments.
CHAPTER V

DISCUSSION

Overall Job Satisfaction Profile

Job Satisfaction and Pay

The results of the present investigation did not identify a set of variables that was consistently related to job satisfaction of physical education graduate faculty members. Of all the independent variables, only salary was identified as relating to all six dependent variables (job satisfactions). These results support the findings of Presthus (1962), Bornheimer, Burns and Dumke (1973) and Graham (1980) who also found that pay is related to job satisfaction.

According to Gruneberg (1979), pay can mean many things to people, such as a means of acquiring material goods, or an indication of achievement and recognition. In some cases, it also stands for society's appraisal of one's worth. Since the results of the present study indicates that higher paid subjects were more satisfied in every aspects of job satisfaction while lower paid subjects were less satisfied, we can safely agree with Gruneberg's claim that pay can affect job satisfaction on a variety of levels.
Alderfer's (1969) modified need hierarchy theory also helps to explain this relationship between pay and satisfaction. Alderfer collapsed Maslow's five hierarchical need levels into three, including existence needs, relatedness needs and growth needs, and thus is aptly called the existence-relatedness-growth theory (ERG theory). Existence needs are those needs required to sustain human existence, which includes both physiological and safety needs of Maslow's theory. Relatedness needs are concerned with how people relate to their surrounding social environment, which include the needs for meaningful social and interpersonal relationships. Growth needs are the needs for self-esteem and self-actualization. Alderfer's model is quite similar to Maslow's theory in that individuals move up the hierarchy from existence needs to relatedness needs to growth needs, as lower-level needs become satisfied. However, there are two important aspects that are different from Maslow's theory. First, Maslow suggested that the progression from one level of the hierarchy to the next was based on the satisfaction of the lower needs. Alderfer's ERG theory argues that in addition to this satisfaction-progression process, there is also a frustration-regression process. For example, when an individual is continually frustrated in attempts to satisfy growth needs or relatedness needs, existence needs may reemerge as the primary needs and the
individual may redirect his or her efforts to these lower-order needs. Alderfer's model also suggested that more than one need may be operative, or activated, at the same time, which is the second major difference from Maslow's theory. In the present study, the satisfaction or dissatisfaction of pay, which is usually primarily related to existence needs, might also be an indication that frustration of higher order needs leads to redirecting attention to lower-order needs, which in this case is pay. Indeed, Jacobson (1985) stated that the state of higher education is low in academic standards, students too weak, the campus intellectual environment only fair, and faculty compensation and working conditions inadequate, which are reasons to prompt Smith's (1984) comment that many people view teachers as second-class citizen. Darling-Hammond (1985) summarized the poor status of education by stating that teaching is now characterized by low wages, poor training, with no real standards of practice, and a poor public image. Since pay, in the present study, is related to not only pay satisfaction, but to all aspects of job satisfaction, Alderfer's theory would predict that faculty members are potentially frustrated with the present low status of higher education, which in turn prevented them from fulfilling the higher order needs and led to focusing
on lower order needs such as pay as a determinant of job satisfaction.

It is interesting to note that the average score in the present study for pay satisfaction was 27.16 and this represents the lowest among the five aspects of job satisfaction of the JDI (Table I). A comparison with the JDI norm tables (see Appendix F) also showed that the score 27.16 is at about the 47th percentile in the working population. Indeed, Fedler and Cauts (1982) found that salary was one of the three areas of dissatisfaction identified by 300 assistant, associate and full professors.

What do these results of dissatisfaction with pay really mean? Could it be an indication of not meeting a materialistic standard of living? Or could it be, as indicated by the relationship between pay and the other aspects of job satisfaction, a redirection of attention to lower-order needs because of dissatisfaction of some higher-order needs?

To answer this question requires a closer look at the pay scales of faculty members. The pay scale of physical education in higher education, for example, is quite homogeneous throughout the field. Therefore, one would assume that whoever decided to enter this field of work would understand this salary structure and should have no illusion of expecting extremely high financial rewards. The low
The score of pay satisfaction in this study suggests otherwise. Since the salary level was expected, it seemingly rules out the explanation that salary did not meet the expected level. However, equity theory and reference group theory argue that individuals compare their inputs and outputs from a job with those of others and thus the concept of relative pay becomes important. That is, although the level of pay was expected, it might still be a source for dissatisfaction in reference to what others with comparable education and experience were making in business or industries. An inspection of Table IV, which lists the average starting salaries of different occupations, reveals that salaries of college teachers are lower than most other salaries in other professional, business or industrial jobs that require comparable education. In addition, according to a survey by the Carnegie Foundation for the Advancement of Teaching (1985) of 5,000 teachers in two-year and four-year institutions in the spring of 1984, 60% said their salaries were fair or poor, and nearly one-fourth of the faculty members were considering entering another line of work. This confirmed the widespread belief of the discrepancies between teachers' salaries and salaries in business and industries. In the present study, was the relative dissatisfaction with pay an indication of actual materialistic deficiency, or was it an indication of lack of recognition and appreciation from the
society towards the field of higher education? Further research might provide insight into factors that influence the relationship between pay and job satisfaction in physical education graduate faculty members.

TABLE IV
A COMPARISON ON STARTING SALARIES OF DIFFERENT PROFESSIONS

<table>
<thead>
<tr>
<th>PROFESSION</th>
<th>EDUCATION</th>
<th>STARTING SALARY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assistant professor</td>
<td>PhD</td>
<td>$18,900</td>
</tr>
<tr>
<td>Microbiologist</td>
<td>PhD</td>
<td>$26,951</td>
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<td>Experimental</td>
<td>PhD</td>
<td>$22,500</td>
</tr>
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<td>psychologist</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychiatrist</td>
<td>MB</td>
<td>$38,500</td>
</tr>
<tr>
<td>Civil engineer</td>
<td>MS</td>
<td>$32,800</td>
</tr>
<tr>
<td>Electrical engineer</td>
<td>MS</td>
<td>$32,800</td>
</tr>
<tr>
<td>Account executive</td>
<td>MBA</td>
<td>$22,000</td>
</tr>
<tr>
<td>Industrial engineer</td>
<td>BS</td>
<td>$19,860</td>
</tr>
</tbody>
</table>

Note: These are average salaries of 1983, provided by Career Information Brief. San Diego, California: Edits Publishers, 1983.

Hours of Teaching

Hours of teaching was another variable that showed a consistent relationship with job satisfaction, although not to the extent of salary. The results indicated that the less hours of teaching, the more satisfied with the job. However, the Carnegie Survey of Faculty (1985) reported that
despite heavy emphasis on research as a basis for professional advancement, almost 70 percent of all faculty members said their interests were more in the area of teaching. This presents a dilemma since faculty members reported being more interested in teaching but the hours of teaching were inversely correlated to job satisfaction.

In college teaching, research is usually required for recognition and advancement, and the time spent on research is mostly self-regulated. Teaching, however, is regulated by supervision. Therefore, it is possible that while faculty members' interests lie more in teaching, it is viewed as work load assigned to them by their superior. With the emphasis on publication as a criterion for faculty promotion, increased teaching time means reduced time for research and writing, thus reducing the opportunity to pursue achievement, recognition and promotion.

Top-20 vs. Non-top-20 Departments

Univariate analysis of variance revealed that top-20 departments' overall satisfaction were significantly higher than non-top-20 departments. The differences between the overall job satisfaction scores between top-20 and non-top-20 departments supported the few studies that were related to institutional prestige and job satisfaction. For example, Caplow and McGee (1958) found that institutional prestige
was one of the major reasons for faculty selecting different employment or electing to stay at their present employment. In addition, Brown (1965) ranked prestige and reputation of an institution second among ten factors that influence faculty members' selection, retention and satisfaction of their jobs. Furthermore, Bornheimer, Burns and Dumke (1973) also found that professional climate and professional reputation of an institution were important to faculty retention and satisfaction. Thus the prestige of an institution does seem to affect the satisfaction of faculty members. Lawler (1973) also presented a possible explanation by stating that contemporary research shows that when a relationship exists between satisfaction and performance, it is usually because performance influences the level of satisfaction. Since faculty members in top-20 ranked departments did spend significantly more time on research than non-top-20 departments' faculty members, it is possible that their performance in the area of research improved their level of satisfaction. The concern is whether there were any other differences in factors such as facilities, teacher and student ratio, organizational climate, and leadership style between the two groups that were responsible for these differences.

Results also revealed that although the pay satisfaction scores of top-20 departments (mean=28.72) were
significantly higher than non-top-20 departments' score (mean=24.88), the actual pay of top-20 department faculty members (an average of $35,130 per nine months) were not significantly different from non-top-20 department faculty members (an average of $34,620 per nine months). To explain this phenomenon, we must first explore how our society evaluates teachers. The universities hope that teachers will perform well in their teaching duties, but reward them primarily for research and publications. For example, rewards for good teaching are usually limited to outstanding teaching awards, if at all recognized, and are usually bestowed upon a small number of teachers, giving them fleeting prestige. Conversely, rewards for research and publication are commonly administered by universities, providing opportunity for promotion, tenure, lasting prestige and even monetary gains. Furthermore, resumes with impressive research and publication records are generally better received at other universities than resumes which concentrate on teaching credentials (Kerr, 1975). As mentioned earlier, demographic data revealed that top-20 department faculty members did spend significantly more time on research than faculty members in non-top-20 departments (see Table I: an average of 13.3 hours per week vs. 9.8 hours per week on research). The fact is that while top-20 faculty members receive recognition and acclaim from having
more research, scholarship and publication (Massengale, 1983), as well as the traditional reputation of their institutions, non-top-20 department faculty members, without these advantages, might focus more on monetary reward as a measurement of recognition and achievement than faculty members from top-20 departments, and thus are not as satisfied with the same amount of money. In other words, top-20 department faculty members' higher prestige might compensate for their lower salary, while non-top-20 department faculty members magnified the dissatisfaction on the inadequate pay because they place more importance on it. The differences in research, scholarship, publication and the attitude toward monetary reward might be the answer to the difference in overall job satisfaction between top-20 and non-top-20 department faculty members. Further study comparing factors such as administration style, organizational climate, teacher-student ratio, secretarial or clerical assistance and facility standards of top-20 and non-top-20 institutions might reveal other influences that might affect job satisfaction.

*Satisfaction with Supervision*

Results also revealed that top-20 department faculty members who were higher paid also were more satisfied with supervision, while for non-top-20 department faculty members, those who taught less hours were more satisfied
with supervision. This is possibly a representation of the
different perspectives that the two groups were holding
toward supervision, with the top-20 department faculty
members viewing supervision as controlling financial rewards
(i.e. merit increases) while faculty members from non-top-20
departments viewed supervision from a work-load controlling
stand-point (less teaching). Since top-20 department
faculty members spent more time in research, it is possible
that research was viewed as the major work-load, while for
faculty members in non-top-20 departments, teaching was
viewed as the major work-load. The different viewpoints of
supervision by the top-20 and non-top-20 department faculty
members might underlie the differences in factors affecting
supervision satisfaction.

Conclusions
1. Salary was found to be the only variable related to all
aspects of job satisfactions for physical education
graduate faculty members. Higher paid faculty members
tend to be more satisfied with all aspects of job
satisfaction.
2. A consistent profile of variables in relation to job
satisfaction other than salary was not found.
3. Top-20 department faculty members spent significantly
more time on research than non-top-20 faculty members.
4. Top-20 department faculty members were generally more
satisfied with pay than non-top-20 department faculty members.

5. Top-20 department faculty members were generally more satisfied with their job overall than non-top-20 department faculty members.

6. Higher paid top-20 department faculty members were more satisfied with supervision.

7. Non-top-20 department faculty members who taught less hours were more satisfied with supervision.

Recommendations

1. A more complete questionnaire should be administered to explore the relationships between job satisfaction and work-load factors such as time spent with community work, administration duties and other academic duties.

2. Further research should be conducted with the purpose of discovering those variables that are responsible for the satisfaction and/or dissatisfaction with pay, since in general physical education faculty members were indicating dissatisfaction with pay.

3. Further research investigating the actual differences between top-20 and non-top-20 universities, such as facilities, administration styles, organizational climates, secretarial and clerical help, teacher-student ratio, grants available for research, fringe benefits, and
opportunity for monetary reward outside of university, and their effect on job satisfaction should be conducted.

4. A replication of this study should be conducted after a five to ten year period, to observe whether the results of the present study have stability over time.
CHAPTER BIBLIOGRAPHY


APPENDIX A

Top-20 Ranked Departments

1. Penn State
2. Ohio State
3. Illinois
4. Wisconsin
5. Oregon
6. North Carolina
   (Greensboro)
7. Indiana
8. UCLA
9. Iowa
10. Maryland
11. Massachusetts
12. Southern California
13. Michigan
14. Florida State
15. Purdue
16. Springfield
17. Columbia
18. Michigan State
19. Temple
20. California
   (Berkeley)

Randomly Selected Non-top-20 Departments
(Alphabetical order)

Arkansas, Arizona State, Boston University, Colorado,
Georgia, Houston, Minnesota, Mississippi, Missouri, New
Mexico, North Carolina (Chapel Hill), North Texas State,
Northern Colorado, Southern Illinois, Southern Mississippi,
Stanford, Texas, Texas A & M, Toledo, Washington State.
APPENDIX B

Demographic Information

Instruction: Please fill in the information below.

1. During the academic year do you normally teach at least one graduate class? Yes __ No __

2. Are you a full-time faculty member? Yes __ No __

3. Age: ______

4. Gender: ______

5. Rank: Instructor __ Assistant Professor __ Associate Professor __ Full Professor __

6. How many years have you been teaching? ______

7. Are you tenured? Yes __ No __

8. Your length of service at the present university: ______

9. Your present 9 month salary is: ______

10. The university or college from which you received your highest degree: ________________________________

11. The university or college for which you are currently working: ________________________________

12. The number of hours you spend on teaching each week: ______

13. The number of hours you spend on conducting research each week: __________________________

14. The number of hours you spend participating on committees each week: ______

15. The number of hours you spend on advising students each week: __________
APPENDIX C

JOB DESCRIPTIVE INDEX

Instructions: There are five aspects in this scale: work supervision, people, pay and promotions. You are asked to put "Y" beside an item if the item described the particular aspect of your job, "N" if the item did not describe that aspect, or "?" if you could not decide.

Work
- Fascinating
- Routine
- Satisfying
- Boring
- Good
- Creative
- Respected
- Hot
- Pleasant
- Useful
- Tiresome
- Healthful
- Challenging
- On your feet
- Frustrating
- Simple
- Endless
- Gives sense of accomplishment

People
- Stimulating
- Boring
- Slow
- Ambitious
- Stupid
- Responsible
- Fast
- Intelligent
- Easy to make enemies
- Talk too much
- Smart
- Lazy
- Unpleasant
- No privacy
- Active
- Narrow Interests
- Loyal
- Hard to meet

Pay
- Income adequate for normal expenses
- Satisfactory profit sharing
- Barely live on income
- Bad
- Income provides luxuries
- Insecure
- Less than I deserve
- Highly paid
- Underpaid

Supervision
- Asks my advice
- Hard to please
- Impolite
- Praises good work
- Tactful
- Influential
- Up-to-date
- Doesn't supervise enough
- Quick-tempered
- Tells me where I stand
- Annoying
- Stubborn
- Knows job well
- Bad
- Intelligent
- Leaves me on my own
- Around when needed
- Lazy

Promotions
- Good opportunity for advancement
- Opportunity somewhat limited
- Promotion on ability
- Dead-end job
- Good chance for promotion
- Unfair promotion policy
- Infrequent promotions
- Regular promotions
- Fairly good chance for promotion
APPENDIX D

Job Satisfaction Index

Some jobs are more interesting and satisfying than others. We want to know how people feel about different jobs. This blank contains eighteen statements about jobs. You are to circle the phrase below each statement which best describes how you feel about your present job. There are no right or wrong answers. We should like your honest opinion on each one of the statements. Work out the sample item numbered (0).

0. There are some conditions concerning my job that could be improved.
   
   Strongly Agree  Agree  Undecided  Disagree  Strongly Disagree

1. My job is like a hobby to me.
   
   Strongly Agree  Agree  Undecided  Disagree  Strongly Disagree

2. My job is usually interesting enough to keep me from getting bored.
   
   Strongly Agree  Agree  Undecided  Disagree  Strongly Disagree

3. It seems that my friends are more interested in their jobs.
   
   Strongly Agree  Agree  Undecided  Disagree  Strongly Disagree

4. I consider my job rather unpleasant.
   
   Strongly Agree  Agree  Undecided  Disagree  Strongly Disagree

5. I enjoy my work more than my leisure time.
   
   Strongly Agree  Agree  Undecided  Disagree  Strongly Disagree

6. I am often bored with my job.
   
   Strongly Agree  Agree  Undecided  Disagree  Strongly Disagree

7. I feel fairly well satisfied with my present job.
   
   Strongly Agree  Agree  Undecided  Disagree  Strongly Disagree

8. Most of the time I have to force myself to go to work.
   
   Strongly Agree  Agree  Undecided  Disagree  Strongly Disagree

9. I am satisfied with my job for the time being.
   
   Strongly Agree  Agree  Undecided  Disagree  Strongly Disagree

10. I feel that my job is no more interesting than others I could get.
    
    Strongly Agree  Agree  Undecided  Disagree  Strongly Disagree

11. I definitely dislike my work.
    
    Strongly Agree  Agree  Undecided  Disagree  Strongly Disagree

12. I feel that I am happier in my work than most other people.
    
    Strongly Agree  Agree  Undecided  Disagree  Strongly Disagree

-- Continue on the Back --
13. Most days I am enthusiastic about my work.
   Strongly Agree  Agree  Undecided  Disagree  Strongly Disagree

14. Each day of work seems like it will never end.
   Strongly Agree  Agree  Undecided  Disagree  Strongly Disagree

15. I like my job better than the average worker does.
   Strongly Agree  Agree  Undecided  Disagree  Strongly Disagree

16. My job is pretty uninteresting.
   Strongly Agree  Agree  Undecided  Disagree  Strongly Disagree

17. I find real enjoyment in my work.
   Strongly Agree  Agree  Undecided  Disagree  Strongly Disagree

18. I am disappointed that I ever took this job.
   Strongly Agree  Agree  Undecided  Disagree  Strongly Disagree
July 29, 1985

Dear Sir/Madam:

Under the auspices of the Divisions of Higher Education and Physical Education, North Texas State University, I am conducting a study of job satisfaction among graduate faculty members in physical education. The study is part of my doctoral dissertation research and I am asking a selected number of graduate faculty members in physical education from forty universities to participate.

I would greatly appreciate your assistance in this research project. Would you please be so kind as to respond to all the items on the questionnaires that I have enclosed and to return the questionnaires to me in the enclosed envelope as soon as possible. Enclosed are three questionnaires: 1. Demographic Data; 2. Job Description Index; and 3. Job Satisfaction Index. This should require no more than fifteen minutes of your time. While the questionnaires are numbered for processing purposes, please be assured that the study will in no way identify individual participants or schools. Your responses will be held in strictest confidence.

Thank you very much.

Sincerely,

Roy C. Chan

Enclosures
APPENDIX F

Normative JDI Scores
Satisfaction with all JDI Avariables
Stratified by Sex

<table>
<thead>
<tr>
<th>Percentile</th>
<th>Work</th>
<th>Pay</th>
<th>Promotions</th>
<th>Supervision</th>
<th>Co-Worker</th>
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APPENDIX F — Continued

Normative JDI Scores
Satisfaction with all JDI Variables:
Stratified by Sex

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BIBLIOGRAPHY


Christian, P. L. (1983). *The Relationship Between Faculty Expectations and Perceptions of the Department Chairperson's Role and Job Satisfaction of the Faculty*. 
Unpublished Doctoral Dissertation, University of North Carolina at Chapel Hill.


Huber, J. H. (1968). *The Occupational Role of College Pro-


Keppe, R. A. (1978). *The Relationship Between Selected Status Characteristics and Job Satisfaction of Two-Year*


