JOB SATISFACTION AMONG ACADEMIC ADMINISTRATORS AT SELECTED AMERICAN COLLEGES AND UNIVERSITIES

DISSERTATION

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The problem of this study was job satisfaction among academic administrators in selected American institutions of higher education. Chapter I introduces the study and gives its purposes. A selected review of the literature on job satisfaction is presented in Chapter II. The methodology used to conduct this status study is the subject of Chapter III. The findings of the study are presented in Chapter IV and Chapter V contains a summary, discussion, conclusions, and recommendations.

A survey instrument composed of demographic items, a global job satisfaction question, and a standardized dimensional job satisfaction instrument, the Job Descriptive Index (JDI), was mailed to academic administrators at four-year institutions stratified by Carnegie classification. There was a response rate of 76 percent.

The findings showed 63.2 percent of the sample to be very satisfied with their jobs in response to the global job satisfaction question. They did not differ significantly in their mean response from managers in other organizational settings who answered the same question in a 1989 national survey. The Carnegie classification of the respondents employing institution had no main effect on their JDI scores. The level of the respondents' administrator position did have

a significant effect, however, on the mean scores of three of the JDI scales. When median JDI scores for each administrator position were compared to a norm group, it was found that chief academic officers and deans are relatively dissatisfied with the nature of their work. Demographic variables contributed only a small amount of variance to JDI scores.

The most important conclusion reached by the study was the fact that chief academic officers and deans are dissatisfied with the content of the jobs they do. It is recommended that future research investigate the cause of this dissatisfaction. It is also recommended that the JDI continue to be administered to this population on a regular, continuing basis to document changes and trends in their job satisfaction over time.

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CHAPTER I

INTRODUCTION TO THE STUDY

As recently as twenty years ago, administrators in higher education tended to remain permanently fixed in their positions while faculty members frequently changed jobs. This trend has now reversed itself (Richman & Farmer, 1974; Wolotkiewicz, 1980). A former vice president for academic affairs at a mid-sized university returned to full-time teaching in the Department of Language and Literature. She had served nine years in three successive administrative positions at that institution. In thanking the Faculty Council for the resolution of appreciation it had adopted in her honor, the former administrator responded to remarks that she is smiling more these days. She commented:

> Wouldn't you smile if your life had taken a turn that gave Shakespeare instead of Coordinating Board reports? Could I possibly feel anything except joy at the substitution of Faulkner for academic probation and suspension lists? And who wouldn't rather try to explain the Spenserian stanza than the work unit formula? (*TWU Update*, 1985, p. 2).

One has but to periodically read the titles of articles and scan "Bulletin Board" in *The Chronicle of Higher Education* to form the subjective opinion that turnover rate in academic administrative positions is high. This is verified by data collected by the American Council on Education (Anderson, 1981) and reported as "Turnover Rate

of Selected Administrative Positions by Type of Institution, 1975-76 and 1980-81."

Position	1975-76	1980-81
President	13.2%	10.6%
Chief Academic Officer	19.5	18.2
Dean of Arts and Science	16.9	19.2
Dean of Graduate Programs	16.8	18.2

Several generalizations can be made from these data. The turnover rate in each of the four administrative positions reported is more than 10 percent. The highest rates are seen in the deans' and chief academic officers' positions and has increased in this five year interim for deans.

More recent data on length of service in the position of presidents are available as a result of a survey sponsored by the College and University Personnel Association and the Association of Governing Boards of Universities and Colleges in the fall of 1983. The survey culminated in a report from the Commission on Strengthening Presidential Leadership headed by Clark Kerr. The Commission reported that the average presidential term is seven years, that there are fewer long-term presidents now than in previous years, and that during any two-year period about one-fourth to one-third of the presidents surveyed are in some phase of leaving or thinking of leaving (Jacobson, 1984). The Commission believed that a presidential term of seven years is entirely too short to effectively serve some of

the major interests of institutions of higher education ("Panel offers", 1984).

Research has been done showing a consistent, moderate, negative correlation between turnover and job satisfaction (Mobley, Griffeth, Hand, & Meglino, 1979). While there are some alarming data concerning turnover, there is a lack of specific information about job satisfaction among college and university administrators which may have a bearing on this situation.

There have been many changes in both the internal and external environments of colleges and universities in recent years which could lead to job frustration of the administrators responsible for them. A decade ago, the commissioner of the Texas Higher Education Coordinating Board raised concerns about the lack of leadership in higher education. He commented, "Any long shadows in higher education today mean only it is late in the day, not that we have any towering figures among us" (Ashworth, 1979, p. 89). The commissioner believed this may be attributed to multiple administrative guidelines, court decisions, laws, regulations, and government formulas which have created so much bureaucratic red tape that administrators are left with little time or energy to be creative.

More recently, a former dean and assistant to three presidents also noted a decline in leadership (Keller, 1983). He stated that a specter of declining enrollments and constricting finances are haunting college and university campuses today and may be part of this problem.

Even the popular press is raising concern over the stature of college presidents and speculating on why it appears to be declining. *Newsweek* ("Conventional Wisdom Watch", 1990) recently rated several prominent college presidents. The magazine judged only two of six presidents as outstanding. The explanation given as to why college presidents do not " . . . cut the swath they once did" was that "Maybe it's because, like politicians, they spend their days begging for money and covering their rears" ("Conventional Wisdom Watch", 1990, p. 4).

In an article in the education section of the same issue of *Newsweek* the writer (Footlick, 1990) refers to the late Bart Giamatti's comment that his presidency at Yale during the 1980s was spent balancing the university budget and deferred maintenance of the campus. He is quoted as saying, "I will be remembered as the president of Yale who made the pipes work" (Footlick, 1990, p. 54).

Deans, although not as much in the public eye, do not escape scrutiny which reflects some of the pressures of their positions. Syndicated columnist William Murchison has been reporting on controversies in the University of Texas English Department in what he claims to be a fight between the radical liberal versus the traditional faculty. Murchison (1990) tells how one embattled faculty member had sought redress from his new dean but had not received any meaningful response. Hard decisions by administrators can be difficult and the difficulty compounded when covered in the national press.

While Keller (1983) advocates that administrators should act with more authority, faculty complain that administrators are too

autocratic. A national survey conducted by the Carnegie Foundation for the Advancement of Teaching in 1989 reported that 69 percent of the faculty respondents rated their administration as fair to poor (Mooney, 1989). This represents an increase of two percent since the same survey was conducted in 1984. With a work environment of increasing paperwork, rapid social and technological changes, a slow economy and adversarial faculty relations, can academic administrators find satisfaction in their jobs? This study was designed to answer this and other questions relevant to the issue.

Statement of the Problem

The problem of this study was job satisfaction among academic administrators in selected American institutions of higher education.

Purpose of the Study

The purposes of the study were: (1) to document the level of job satisfaction among selected U.S. college and university academic administrators, (2) to identify sources of satisfaction and dissatisfaction in these positions, (3) to determine if the level of job satisfaction among academic administrators differs from other administrators/managers in all types of organizational settings, (4) to determine if there is a difference in job satisfaction among presidents, chief academic officers, and deans, (5) to determine if academic administrators vary in job satisfaction according to the Carnegie classification of colleges and universities where they are employed, (6) to determine if academic administrators vary in job satisfaction according to demographic variables, and (7) to make

recommendations for improving morale among academic administrators, if the findings warrant.

Research Questions

The research questions which were addressed by this study are:

1. What is the global level of job satisfaction among academic administrators?

2. Is there a significant difference between the national mean level of global job satisfaction for administrators/managers in all types of organizational settings as reported in America in 1989 by the National Opinion Research Center and the mean level of global job satisfaction of those in academic administrative positions at colleges and universities as determined by this study?

3. What is the level of satisfaction regarding work, pay, opportunities for promotion, immediate supervision, and coworkers among academic administrators?

4. Do academic administrators vary in job satisfaction according to the level of position they hold (president, chief academic affairs officers, deans)?

5. Do academic administrators vary in job satisfaction according to the Carnegie classification of the institution that employs them?

6. Are the demographic variables of gender, employment by a private or public institution, ethnicity, years of service in current position, educational background, age, and salary associated with job satisfaction?

Significance of the Study

A comprehensive, national study of job satisfaction among American university and college administrators has not been done in the past decade. During this time, however, many changes in the internal and external environments of American institutions of higher education have occurred which have the potential for decreasing morale among administrators. This study provides information on overall or global job satisfaction among academic administrators. In addition to overall satisfaction, specific satisfaction for work, pay, opportunities for promotion, supervision, and coworkers was determined. Since the sample was a stratified random sample, the findings for general morale and satisfaction in specific areas of the job may be generalized to the population of academic administrators from which the sample was drawn.

The areas and extent of greatest job dissatisfaction were also identified. Research (Henne & Locke, 1985; Spector, 1975) has shown that job frustration can have a negative effect on both employees and the organizations that employ them. This study may serve as rationale for further investigations by regulatory agencies, foundations, and associations concerned with American higher education relative to job dissatisfactions.

The findings of this study may provide data for analysis of, and rationale for, potential actions to improve job satisfaction on a broad national basis. It also identifies specific academic administrative positions (presidents, chief academic officers, and deans) which are in

need of special attention to improve the quality of work life at that managerial level.

The findings about job satisfaction can also provide useful information for college and university change agents such as consultants, boards of trustees, immediate supervisors, and search committees. The findings in this area can lead to efforts such as organization development, job redesign, or better matching of applicants to positions.

Definition of Terms

The following terms will have restricted meaning and are thus defined for this study:

Job satisfaction is the affective response of people to the conditions of their job. It implies a fit between people's values and needs and the conditions of their employment.

An academic administrator is a person serving as a dean of a college or colleges of arts and sciences (these may be separate colleges at some institutions), chief academic officer, or president at a four-year college or university categorized as a research university, doctorate-granting university, comprehensive university or college, or liberal arts college according to the Carnegie Foundation for the Advancement of Teaching (1987) classification system.

Delimitation

The fact that this study is based on the responses of a sample of randomly selected four-year university and college administrators

rather than the population of all such individuals is a delimitation of the study.

Organization of the Study

The study was organized to present the statement of the problem, purposes of the study, research questions to be answered by the study, and significance of the study in this introductory chapter. Chapter II presents a selected review of the literature about job satisfaction research in general and about job satisfaction of administrators at four-year colleges and universities in particular. The literature review documents the fact that, while job satisfaction has been a highly researched topic, it has been studied on a very limited basis in college and university organizations, especially among academic administrators. The methodology used to conduct the study is discussed in Chapter III. Among the methods presented are the components of the survey instrument which was used, information about the population of interest and the procedures used to select the stratified random sample, the time frame that was followed, the provisions for insuring an adequate response rate, and the procedures used for analyses of the data.

Chapter IV presents the findings of the data analyses used to meet six of the seven purposes of the study. Data are presented in tabular and narrative form. Chapter V provides a summary and discussion of the findings, conclusions which were reached as a result of the study, recommendations for future research, and, in response to purpose seven, implications of the study which may be applied to

enhance job satisfaction among academic administrators at four-year institutions of higher education.

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CHAPTER II

REVIEW OF RELATED LITERATURE

Introduction

Thousands of articles on job satisfaction exist in the professional literature of psychology, sociology, business, and education. One could spend innumerable hours reading and synthesizing the information on this subject. The discussion which follows attempts to present the major topics related to job satisfaction to include its definition, historical trends, significance, current level, conceptual theories, research designs, measurement techniques, correlates and the types of subjects studied as presented in the literature. This overview of pertinent, related research on job satisfaction serves as an important framework for the understanding and analysis of the subject of this paper.

Special emphasis was placed in this review on reports specific to job satisfaction as it exists at four-year colleges and universities among those individuals in academic administrative positions. These studies, however, represent just a small proportion of the existing data base, because it has only been within the last 15 years that research on the job satisfaction of managers in this organizational setting has begun.

Definition

The concept of job satisfaction is generally defined as being a positive, affective or emotional response by individuals resulting from an appraisal of their work role in the job that they presently hold (Locke, 1976; Price & Mueller, 1986; Vroom, 1964). There can be varying degrees of satisfaction with job experience. A positive attitude is called job satisfaction while, at the other end of the spectrum, a negative attitude is referred to as job dissatisfaction (Price & Mueller, 1986). Locke (1969) says: "Job satisfaction and dissatisfaction are a function of the perceived relationship between what one wants from one's job and what one perceives it as offering or entailing" (Locke, 1969, p. 315).

Historical Trends

Job satisfaction has been of interest to researchers for many years. Hoppock (1935) and the Harvard Business School researchers who conducted the Hawthorne Plant studies (Roethlisberger & Dickson, 1939) are credited with initiating the first of what now totals thousands of studies on job satisfaction. Locke (1969) identifies three main historical trends in the study of job satisfaction. In the 1920s, in what Locke refers to as the "Physical-Economic School" of research, emphasis was on the influence of physical working conditions and salary upon workers' attitudes. Beginning in the 1930s, the emphasis changed to the effect of supervisory practices and the informal work group on job satisfaction and Locke says the researchers of this era belonged to what he calls the "Social or Human Relation School." The

current research interest relative to job satisfaction is labeled by Locke as the "Work Itself or Growth School." It began in the 1950s and emphasizes the role of mentally challenging work in the development of individuals in a manner which they find satisfying.

Significance

In view of the sheer numbers of studies concerning job satisfaction one is compelled to ask why? What are the reasons given; of what significance is the information to be gained? Three groups have been identified as receiving benefits from a high level of job satisfaction: employers, employees and the community or society in general (Herzberg, Mausner, & Snyderman, 1959; Quinn, Staines, & McCullough, 1974).

Employers have long held an assumption, since the findings of the Hawthorne Plant studies were first published (Locke 1976), that increased job satisfaction led to improved performance by the individual worker. Vroom (1964), in a review of studies that examined this association, concluded that the relationship is weak, averaging 0.14 in the 23 research reports in his analysis. While it is questionable that a direct increase in productivity may result from improvement in job satisfaction, the results may show more indirectly on company ledgers through a decrease in costs attributed to turnover (Mobley, Griffeth, & Meglino, 1979), absenteeism (Katz & Kahn, 1965), psychological withdrawal through drug and alcohol use, theft, and sabotage (Quinn, Mangione, & Seashore, 1975). Other benefits of high levels of job satisfaction to employers as related by Gibson,

Ivancevich, and Donnelly (1988) are what the authors call "citizenship behaviors." These include such behaviors as helping to train new employees, assisting a colleague in the completion of a job when he or she is not feeling well, working hard to deliver goods and services, keeping complaints at a low level, and making positive comments about the organization in the community. The absence of, or decline in, union activity is another possible benefit of high levels of job satisfaction to employers (Schriescheim, 1978). There is also the reasoning (Quinn et al., 1974) that satisfied employees enhance a company's reputation in the community as a good place to work. This can make the company a first choice among potential employees rather than an employer of last resort and result in a better pool of qualified job applicants.

A level of job satisfaction is also of significance from the employee's perspective. Locke (1976) says the pursuit of job satisfaction is a justified means to an end since happiness is a goal of life. Herzberg et al. (1959) conducted extensive interviews to determine job satisfaction among a sample of engineers and accountants. They concluded that positive job attitudes are important contributors to peoples' need for self-actualization in their work. Kornhauser (1965) verified the contribution of job satisfaction to mental health. He studied automotive workers and found that those employees with below level job satisfaction were judged to have poorer mental health.

Physical health has also been shown to be associated with job satisfaction. Several diseases, such as coronary heart disease, are related to psychological factors. McQuade (1972) found that managers

at the Goddard Space Flight Center were at increased risk to coronary heart disease as compared to the engineers and scientists there. This was attributed to the stresses associated with the managers' jobs. It is not surprising that the one activity in which most adults spend the majority of their waking hours-- work--is a social condition which can have a significant influence on their health, personal development, and general life satisfaction (Henne & Locke, 1885; Quinn et al., 1974).

Society is also affected by the job satisfaction of its members. Quinn et al. (1974), in their monograph published by the U.S. Department of Labor, advanced several opinions about society's perspective of the issue. They contend that dissatisfied workers draw disproportionately on national resources. Employees whose jobs are detrimental to their physical and mental health place an additional burden on the country's already overburdened health-care system. When workers' dissatisfaction with their jobs is so great that they terminate, then they may be eligible to draw unemployment compensation. If dissatisfaction results in decreased productivity on jobs, then this underutilization of their talents and education is an obvious social waste. At the same time the effects of decreased productivity can be passed onto the consumers in the form of higher costs or decreased quality for goods and services, or both.

Current Level of Job Satisfaction

The level of job satisfaction in this country has long been a topic of research interest. Hoppock (1935), who pioneered the first job satisfaction study, concluded that dissatisfied persons are a minority

group constituting perhaps one-third or less of the employed adult population. A current level of job satisfaction in the U. S. can be assessed by looking at the data collected by the 1989 General Social Survey (National Opinion Research Center, 1990). In response to the question, "On the whole, how satisfied are you with work you do . . . ?" 85 percent of the 1206 respondents in the nationwide sample were either very or moderately satisfied. Quinn et al. (1974) analyzed seven national surveys conducted between 1958 and 1973. They found the percentage of satisfied workers, both males and females, ranged from 81 percent to 91 percent. Although there were fluctuations from year to year, they concluded that there was no evidence of a significant decrease in overall level of job satisfaction in the most recent decade of their review. Glenn and Weaver (1985), however, in responses to the job satisfaction in the General Social Surveys conducted from 1972 to 1982, have found evidence of a cohort effect of age on job satisfaction. Each birth cohort which has reached adulthood in recent decades has been less inclined to be satisfied with work than the previous cohort. They explain the age cohort effect with their opinion that the baby boomers have reached adulthood with an unusually high expectation for work largely based on what they have seen on television while growing up. Glenn and Weaver project a continued decline in positive attitudes toward work as a result of this demographic effect.

As Quinn et al. (1974) point out, a level of 100 percent satisfaction is not in anyone's best interest--employers', employees', or society's. Total contentment can result in complacency along with an inability or unwillingness to adjust to changing job situations and

demands. Dissatisfaction can trigger desirable adaptive reactions of workers in poor working conditions to remedy their situation.

Conceptual Theories

Homans says " . . . satisfaction is at best a slippery concept" (Homans, 1961, p. 227) and Hoppock referred to the " . . . ephemeral and variable nature of job satisfaction" (Hoppock, 1935, p. 5). These appear to remain as appropriate descriptors today, especially when discussing the theoretical basis of job satisfaction. Campbell, Dunnette, Lawler, and Weick (1970) assumed the monumental task of synthesizing, classifying, and defining the major theories of motivation as they relate to individuals in their work setting. They have divided the resultant theories into two broad categories: Process or mechanical theories and content or substantive theories.

According to the Campbell et al. (1970) classification system, the process or mechanical theories try to define the major classes of variables that are important for energizing, directing, sustaining and ending motivated behavior. In addition, the process theories attempt to explain how these variables interact to produce certain types of behavior. Campbell et al. (1970) have synthesized existing process oriented theories into three major theoretical positions of motivational process as it relates to organizational behavior.

One of these process theories is the stimulus-response or drive x habit theory. Initial credit for this theory is given to the work of Hull (1943). It is explained as behavior that results from a combination of drive multiplied by habit strength to produce effort. Habit strength is seen as the strength of the stimulus-response

connection resulting from experiences which have been previously reinforced.

Expectancy theory is another process-type of theory advanced by Campbell et al. (1970). Tolman (1932) and Lewin (1938) laid the basic groundwork for this proposition. According to expectancy theory, individuals have cognitive expectancies about the outcomes that are likely to occur as a result of their behavior and they also have preferences among the possible outcomes. In this theoretical model, it is the anticipation of reward that energizes behavior and the perceived value of various outcomes influences the choice and strength of the specific behavior. There are several hybrid variations of this model in the Campbell et al. (1970) analysis.

The third process model offered by Campbell et al. (1970) is equity or social comparison theory which is attributed to Adams (1963) and Weick (1965). In essence, this theory postulates that the relevant comparison between the ratio of people's job inputs (effort, education, or time, for example) to their job outcomes (pay, working condition, or recognition, for example) is compared to other persons in the same or similar job role. If there is a discrepancy between people and their reference person, they feel tension which motivates them to reduce the perceived inequity in some manner.

Substantive or content theories form the other broad classification by Campbell et al. (1970). According to them, content theories deal with the identification of what it is within individuals or their environment that energizes and sustain behavior; what specific things serve to motivate people. These theories place less

emphasis on the interaction among variables. Campbell et al. (1970) present two well-known content theories, one by Maslow, the other by Herzberg.

Maslow's (1943) hierarchy of needs is arranged in an ascending order of relative prepotency. Physiological needs are at the base of the hierarchy, followed by safety and security needs, belongingness or social needs, and esteem needs in that order, up to self-actualization needs at the top. According to this theory the needs at one level must be essentially satisfied before the next higher level of needs become operative as motivating factors and once a need level has been satisfies it ceases to be a source of motivation. Lawler and Suttle (1972) tested Maslow's hierarchy of needs theory using 187 managers. Their results showed little support for the multiple levels of the hierarchy. They concluded that a two-level hierarchy with basic biological and security needs on the bottom and all other needs in the top level is more appropriate. They could not say which of the higher level needs are most prepotent.

Herzberg's two-factor theory is the other content theory in the Campbell et al. (1970) classification system. Herzberg et al. (1959) developed this theory after a content analysis of their interviews with engineers and accountants relative to job satisfactions and dissatisfactions. According to this theory, there are a set of motivators labeled intrinsic factors: achievement, recognition, work itself, responsibility, and advancement. When present, these factors serve to provide job satisfaction. Another set of factors called extrinsic factors or hygiene factors are: company policy and

administration, supervision, salary, working conditions, benefits, and job security. When they are present they prevent job dissatisfaction but do not provide job satisfaction. When the extrinsic factors are absent, job dissatisfaction results. In Herzberg's theory, job satisfaction and dissatisfaction are two distinct entities arising from different antecedents with no particular relationship to each other.

In the Campbell et al. analysis of data generated as a result of studies stimulated by Herzberg's theory, they conclude " . . . the two-factor theory has now served its purpose and should be altered or respectfully laid aside" (Campbell et al., 1970, p. 381). This statement is based on the fact that many factor analytic studies of job satisfaction have failed to show the presence of two independent factors corresponding to intrinsic and extrinsic factors

Locke (1976), who published an often cited chapter on job satisfaction six years after the book written by Campbell et al., (1970) endorses their analyses of the important theoretical concepts of job satisfaction. Herzberg, however receives praise from Locke as being a major contributor to the knowledge and understanding of job satisfaction by stressing the importance of psychological growth as a precondition of job satisfaction and demonstrating that such growth evolves from work itself.

Locke (Locke, Fitzpatrick, & White, 1983) has since gone on to present his own theory of job satisfaction which he labels theory V as an alternative to the content theories of Maslow and Herzberg. In his theory, V stands for values. He believes values are the most important motivators of choices, actions, and emotions in the job setting. His

theory is based on his inductive reasoning of what has been found in job satisfaction research to date.

Measurement Techniques

There are several methods by which job satisfaction can be measured or determined. Price and Mueller (1986) say that satisfaction is measured, first of all, globally or dimensionally, and, secondly, directly or indirectly. Global measures refer to instruments used to determine the general level of job satisfaction within an organization or group of subjects. Global measures are sometimes called facet-free measures.

On the other hand, dimensional instruments are designed to measure specific features or facets of an organization or group of subjects (Price & Mueller, 1986). The dimensions, facets, referents, determinants, or variables of job satisfaction, as they are variously called, are usually such things as financial rewards, working conditions, supervisory practices, company policy, coworkers, opportunities for advancement, security, and content of the job (Campbell et al., 1970; Vroom, 1964). The facets are expressed in terms of amounts or probabilities of certain kinds of outcomes and the hypotheses, when stated, deal with simple linear association between these amounts and job satisfaction (Vroom, 1964). In correlation studies, Vroom (1964) says the amount of variance of job satisfaction attributable to any single job facet is quite small. He adds that most studies dealing with facets measures of job satisfaction use specific, dimensional measures whereas those dealing with the association

between job satisfaction and job behaviors, such as turnover, tend to use more general or global measures.

A direct measure (Price & Mueller, 1986) of satisfaction uses the term "satisfaction" or a synonym. However, when an indirect measure is used, the degree of satisfaction is inferred by the item but the term "satisfaction" is not use explicitly.

Job satisfaction is typically measured by means of interviews or questionnaires in which the respondents gives a verbal or written self-report about the degree to which they are satisfied with various aspects of their work (Locke, 1976; Vroom 1964). The formats commonly used (Locke, 1976) have been Likert scales, faces scales, lists of adjectives requiring a "yes", "no", or "not sure" response, or Thurstone-type scales. Some common problems inherent to self-description inventories are presented by Locke (1976). They are the assumption that all respondents have the capacity and willingness to introspect and the assumption that there is a common interpretation of scales or items by all respondents.

Vroom (1964) decried the prevalent use of investigator tailor-made instruments compared to standardized measures. In his opinion, the Job Descriptive Index (Smith, Kendall, & Hulin, 1969), which was used in this study, was the best standardized instrument available.

Research Designs

Research methods used to study job satisfaction have consisted of correlation study designs, experimental designs, and individual case studies. Locke (1976) believes the correlation design has been

vastly overused. He contends that the case studies approach, based on extensive individual interviews, can provide several advantages. Case studies are more apt to tap the basic and less verbalized values of the individual, serve as a valuable source of hypothesizing about the psychodynamics of job attitudes, and encourage the use of longitudinal studies.

Both Locke (1976) and Vroom (1964) say there have been only a few attempts to test the relationship between personality variables and job satisfaction. These men recommend more research on the effect of individual variables on job satisfaction and the interaction of workers' personalities with their job environment.

Correlates of Job Satisfaction

The following discussion of the correlates of job satisfaction tie in with the earlier references to the significance of research on job attitudes. There appear to be three broad classes of correlates which have been studied: behavioral actions, demographic factors, and organizational attributes.

With regard to behavioral correlates of job satisfaction, one of the most frequently cited and continuously debated correlates is job performance. Brayfield and Crockett, as early as 1955, examined the commonly held hypothesis that improved job satisfaction makes workers more motivated to increase their production in terms of quantity and quality of work. After an extensive review of studies conducted to that date, they concluded that a positive, linear cause-effect relationship did not exist between these two variable. They

ascribed this to the existence of individual differences in motivation and concluded that the relationship between job satisfaction and performance is one of concomitant variation. Almost a decade later, Vroom (1964) also did a literature review on this topic and found the median relationship between measures of job satisfaction and performance in the 23 studies he reviewed was weak at 0.14.

The studies included in these reviews, however, primarily used industrial workers as the subjects, and managers were almost entirely missing (Porter & Lawler, 1968). Likert (1961), in his book, *New Patterns of Management*, proposed that job satisfaction may be more closely related to managerial performance than it is to the performance of other workers. As a result of this hypothesis, Porter and Lawler (1968) hypothesized that performance through rewards, especially intrinsic ones, has a more direct affect upon satisfaction than satisfaction has upon performance. In a study of 635 managers in seven different organization, they found a significant performance/satisfaction association. They predicted this relationship would have been stronger if the organizations in the study had tied rewards more closely to performance levels. A recent analysis (Podsakoff & Williams, 1986) of the performance-satisfaction correlation compared the findings of research conducted in laboratory settings to those which were field studies. Based on their analysis, these authors endorsed the performance causes satisfaction hypothesis.

Perhaps the most that can be concluded, after many years of correlation studies relative to satisfaction and performance, is that the linkage between these two variables is hard to measure, harder yet

to establish conceptually, and very difficult to affect through direct interventions (Berg, Freedman, & Freeman, 1978). Performance, in the narrow definition of quantity and quality of work produced, may be of relatively little concern to organization officials beyond some minimally acceptable level, according to Organ (1977). He contends that " . . . such things as regular attendance, predictability, following the rules, 'not making waves,' avoidance of hassles, cooperation, and generalized tendencies toward compliance . . ." are the more important " . . . glue which hold collective endeavors together" (Organ, 1977, p. 50).

A stronger and uncontested association between job satisfaction and the behaviors of turnover and absenteeism exists. In a 1973 review of research in this area, Porter and Steers found very strong evidence in support of the contention that overall job satisfaction represents an important force in the individuals decisions to terminate their employment or be absent from their jobs. They found these trends to be true across a wide variety of work group populations and organizations of various types and sizes. Mangione (1973) found gender differences in the type of dissatisfaction which leads to turnover. Dissatisfaction with pay was the best predictor of turnover among men, while dissatisfaction with what he called the comfort aspect of the job (such things as hours and physical surroundings) was the best predictor of turnover for women.

It is interesting that Porter and Steers (1973) found that organizations are very concerned with turnover, but, in contrast, much less concerned with absenteeism as reflected in the fewer number of studies done in this area. They project that this may be due to the

difficulty in distinguishing accurately between avoidable and unavoidable absenteeism. However, costs to the organization due to poor attendance may be far greater than costs of turnover. The studies in their review indicate that the young, low-tenured employees in whom the organization has the least investment have the greatest turnover, while older, more mature employees in whom the organization usually has a greater investment have a higher rate of absenteeism. As a result, they recommend more extensive study of absenteeism by itself to determine the extent to which it may represent a substitute type of behavior for turnover, especially when alternative employment is not readily available.

Other behavioral correlates of job satisfaction have also been studied but certainly not to the extent that performance, turnover, and even absenteeism have been documented. The *Quality of Employment Survey* (Quinn et al, 1975) conducted by the Survey Research Center at the University of Michigan for the U.S. Department of Labor indicated a higher incidence of drug and alcohol abuse, theft, and sabotage among dissatisfied employees. A low level of grievances (Fleishman & Harris, 1962) and union activity (Schriescheim, 1978) are also associated with satisfied workers.

Demographic factors are another broad class of variables that have been studied in association with job satisfaction. Locke (1969) says that demographic variables do not index job attitudes directly and infallibly; therefore, it is not surprising to find the correlations to be both low and inconsistent from study to study. Quinn et al. (1974) did one of the most extensive analyses of demographic correlates of

job satisfaction when they reviewed seven national surveys which determined global job satisfaction, supplemented with data from eight Gallup polls. They concluded that: younger workers are less satisfied with their jobs than older workers; professional-technical workers, officials, managers, and proprietors have the highest levels of job satisfaction while non-farm laborers and operatives have the lowest levels; women are approximately as content as men except for those who have a pre-school age child or children; minority groups have consistently lower levels of job satisfaction than whites; and workers with college degrees have greater satisfaction with work than those who do not.

Organizational structure also presents some factors which correlate with job satisfaction. One of the first people to study this was Morse (1953). She examined the influence of job level or status in the organization. Concomitant with the level of a job in an organization is the type of work performed. Morse found that the greatest degree of intrinsic job satisfaction occurred among employees who were performing the most skilled tasks and who had decision-making responsibilities. Thus supervisors are considerably more satisfied with the nature of their jobs than other employees. Morse believes the value people set on an interesting job may remain relatively constant over their working lives while their value of pay and promotion increase with time. As supervisors advance up the hierarchial pyramid of the organization, however, the opportunities for increases in promotion opportunities and salary usually narrow,

which poses a special problem for employees in managerial and administrative positions.

The property of organizational size as it correlates with job satisfaction has also received considerable attention. Porter and Lawler (1965), in a review of published studies, confirmed that there is little doubt that subunit size is significantly related to job attitudes; workers in small departments are better satisfied than those in large work groups. They also confirmed Morse's findings of a strong association between the organizational level at which people hold a job and their degree of satisfaction with it.

Porter (1963) was particularly interested in the influence of overall organizational size as it related to job satisfaction of people at various managerial levels. He conducted a study using a random sample from a mailing list of members and nonmembers of the American Management Association. He found that managers in lower level positions had greater job need fulfillment than those at higher ranking levels in small companies. This pattern was reversed, however, in large companies where the upper level of managers had greater job satisfaction. Unfortunately, the sample of presidents in Porter's study was too small to draw conclusions about chief executive officers.

Types of Subjects Studied in Noneducational Settings

One last aspect of job satisfaction to be reviewed are the types of subjects who have been the focus of study. The early studies looked at predominantly blue-collar workers (Roethlisberger &

Dickson, 1939). This was followed by the study of job attitudes of white-collar workers (Morse, 1953). The early 1960s marked the beginning of large-scale studies of job satisfaction among managers. Porter and Lawler expressed surprise that it took so long to include them since managers represent a " . . . highly significant and visible part of the workforce of any organization" (Porter & Lawler, 1968, p. 2). The General Social Survey which has been conducted annually since 1972 using a nationwide sample of the country's population has contained a global job satisfaction question in each survey. Weaver (1980) did an analysis of responses to this question for the years 1972-1978 and found a mean score of 2.75 out of a possible score of 3 for people in managerial and administrative positions. This was higher than the mean scores for subjects in the other seven categories of occupational groups.

Types of Subjects Studied in College and University Settings

Coming even later in the sequence of events was the study of college and university personnel relative to their job satisfaction. Locke et al., in the introduction to a recent publication, stated that "While job satisfaction has been one of the most frequently studied phenomena in the fields of industrial and organizational psychology for several decades [Locke, 1976], relatively few of these studies have involved college and university faculty" (Locke et al., 1983, p. 343). Locke et al. then proceeded to give the results of a study they had conducted using faculty from a major state university and a community college. They had a response rate of 31 percent or 498 returned

questionnaires. The findings showed a mean job satisfaction score of 3.16 on a five point scale which the investigators called " . . . only moderately satisfied" (Locke et al., 1983, p. 362). These faculty respondents were most dissatisfied with university administration; their second greatest dissatisfaction was salary. According to Locke et al. (1983), their findings verify findings by Willie and Stecklein (1982) that suggest a decline in overall job satisfaction of faculty since the 1950s and 1960s.

The Willie and Stecklein (1982) study involved a longitudinal design in which they compared survey results obtained in 1956, 1968, and 1980 using the same instrument and similar samples of Minnesota college and university faculty. The response to a global job satisfaction question that was part of the survey showed a downward trend of job satisfaction among faculty at four-year institutions. Those who said they were very satisfied dropped from 46.7 percent in 1968 to 32.5 percent in 1980.

Concern about the results of retrenchment on many campuses during the 1980s led to a study of faculty morale which is being conducted by the Council of Independent Colleges. The study, "The Future of the Academic Workplace in Liberal Arts Colleges," is being conducted in three phases. The first phase consisted of a survey sent to faculty and administrators at 140 liberal arts colleges to determine faculty morale and the organizational conditions that affect it. The principal researchers were surprised to find that faculty satisfaction had not declined as much as had been expected (Rice & Austin, 1988).

The second phase of the study involved case studies conducted at ten colleges which scored high on faculty satisfaction in the initial survey. The purpose of this phase of the study was to identify organizational factors that were associated with good morale. The four key factors found at these colleges were (1) distinctive organizational cultures that are fostered and strengthened, (2) an administration that utilizes participatory leadership style, (3) an "organizational momentum" leading to improvement, and (4) a faculty which has a strong sense of identification with, and loyalty to, their institution.

A third phase of the study, which is currently underway, is the development of intervention strategies to assist those colleges which wish to improve the quality of faculty work life. An important conclusion resulting from the first two phases of the study is that faculty satisfaction and productivity are strongly associated in the academic workplace. In small liberal arts colleges where the primary mission is student achievement, the satisfaction of the faculty is believed to translate into the excitement of the faculty about their jobs, and is of major importance to the attainment of educational goals (Rice & Austin, 1988). A question not answered by the study is, what is the morale of the academic administrators at the colleges in the sample?

One of the most current studies of job satisfaction using college faculty as subjects was reported by Plascak-Craig and Bean (1989). Two of the purposes of their study were to identify the factors associated with faculty job satisfaction and to determine how these variables

were associated with a global measure of this job attitude. The subjects were drawn from the faculty at colleges of education at eight midwestern universities. Their findings showed that a significant proportion of the faculty respondents' global job satisfaction was predicted by the autonomous and creative nature of academic work, participation in decision-making and fairness of administrative evaluation, perceived esteem by colleagues, and financial compensation. "Autonomy-creativity of work itself" was the most frequently indicated satisfier. As in the study done by Locke et al. (1983), the most frequently named dissatisfiers were administration and salary.

The study of job satisfaction using college administrators as subjects is also a relatively recent event in the chronology of job satisfaction studies. Smart and Morstain comment that, "Research on job satisfaction and its correlates has been restricted almost exclusively to employees in non-educational organizations. The few studies which have been conducted in institutions of higher learning have been focused on faculty members" (Smart & Morstain, 1975, p. 4).

In addition to being concerned that job satisfaction among higher education administrators had not been studied, Smart and Morstain (1975) were also concerned that the few studies which had been done on college campuses had not used standardized instruments to measure job attitudes. As a result, they used the five JDI scales (Smith et al., 1969) to measure job satisfaction facets of a convenience sample of members attending a meeting of the Association for Institutional Research. They also used an instrument to determine the

respondents agreement between their preferred and perceived congruency of job tasks in their position as institutional research analysts. The results of a stepwise multiple discriminant analysis, using the five JDI scales as independent variables, showed the work environment scale to be the only predictor variable to discriminate between congruent, moderate, and discongruent administrators. Smart and Morstain concluded that their results provide partial support for the use of the JDI instrument in the college and university setting but recommend replication of the study on other samples of administrators.

The association of role congruency and job satisfaction was also the basis for a study conducted by the Higher Education Research Institute at the University of California at Los Angles (Solomon & Tierney, 1977). This study was designed to test the hypothesis that the greater the congruence between college administrators' perception of their employing institution's reward system and the behavior they value in their subordinates, the less will be the intrarole conflict experienced by them. As a result, low intrarole conflict would be reflected in increased job satisfaction for college administrators. The administrators surveyed were presidents, chief academic officers, deans of schools (if the college had any), directors of financial aid and admissions, and registrars at private liberal arts colleges. Responses were analyzed by stepwise linear regression. The findings indicated a generally high degree of job satisfaction among these administrators, however, they were not satisfied with the opportunities for vertical or lateral transfer in their jobs or the amount of time available to pursue outside activities. They also found

presidents and chief academic officers to be more satisfied than the other administrators at the liberal arts colleges in this sample. Additionally, they found the job satisfaction of all administrators to be greater in those administrators with a high level of role congruence, as hypothesized.

Austin (1985) studied the influence of gender on job attitudes of mid-level, nonacademic administrators at a large public research university. Although these men and women did not differ in their perception of overall job opportunities or job satisfaction they did differ in the factors they associated with job satisfaction. For the male administrators, job satisfaction was related to higher age; greater salary; perceptions that their position provided autonomy, feedback, and skill variety; and perceptions of a cooperative organizational environment. Female administrators' job satisfaction was also related to perceptions that their positions provided skill variety, but, unlike their male counterparts, perceptions that their work was done in an organizational environment that was caring and that their work role provided a likelihood of finding a similar position at another institution were important facets of their job satisfaction.

Six dissertations written in the past decade dealing with job satisfaction of university and college administrators appear to provide some information related to this study. None of the samples in these dissertation studies, however, represent a random sample drawn from the total population of academic administrators at four-year institution as was done in this study.

Carpenter (1989) studied academic middle managers in baccalaureate and graduate nursing programs. Because a college of nursing is not typically divided into departments, it is assumed that the middle managers referred to in this study are program directors and assistant and associate deans. The Job Diagnostic Survey Short Form was the instrument used to collect data. Carpenter found that autonomy was the only significant relationship among seven job characteristics measured and general job satisfaction.

The most extensive dissertation about job satisfaction of college administrators appears to have been done by Boone (1987). Boone used existing measurement tools to survey a convenience sample of 536 members of the American Association of University Administrators. The findings showed that the job characteristics which were significantly associated with job satisfaction of the respondents were feedback, variety, autonomy, participation, and role conflict. Locus of control was a personality factor which predicted job satisfaction and age was the most significant demographic predictor of job satisfaction. These variables combined to account for 37.3 percent of the variance in administrators' job satisfaction. The mean global level of job satisfaction in this sample, as determined by a modified version of the Brayfield and Roth instrument, was 28.76 out of a possible score range of 7 to 35. Boone concluded that the administrators in his study reported high job satisfaction. He also concluded that this satisfaction was based on essentially the same characteristics that are associated with employee job satisfaction in business and industrial settings.

A dissertation written in 1987 (Nagle) used the Wood Satisfaction/Dissatisfaction Scale which measures ten areas of job satisfaction based on Herzberg's motivators-hygiene factors theory. The respondents consisted of administrators in the Minnesota Community College System. Both motivators and hygiene factors were found to have a linear relationship to job satisfaction. However, a high level of motivator satisfaction resulted in a higher level of overall job satisfaction than did a corresponding level of hygiene factors satisfaction. None of the demographic variables related to job satisfaction with statistical significance.

Jahanshahi (1986) evaluated the association between organizational climate and job satisfaction of academic administrators in selected community colleges and universities in three midwestern states. The Job Descriptive Index and the Organizational Climate Questionnaire were the instruments used to collect the data. A high level of job satisfaction, as measured by mean scores, was found for both community college and university administrators. However, Jahanshahi did not calculate JDI scale scores in the standard manner, therefore, these findings cannot be compared to JDI scores obtained in other studies. There was a statistically significant difference between the two groups, with the level of job satisfaction being higher for university administrators than it was for those in community colleges. There was also a strong correlation between organizational climate of the institution and job satisfaction of the administrators.

Resnik (1985) studied the association between the job satisfaction among higher education administrators and the

communication pattern within their organization and the association between the administrators' job satisfaction and their inclusion or exclusion from the president's inner circle of associates. No relationship was found between job satisfaction and communication pattern. Those administrators in the president's inner circle were significantly more satisfied with certain aspects of their jobs than those who were excluded. It was interesting to note that those excluded were almost exclusively student affairs administrators.

Job satisfaction among Mexican-American women administrators was the topic of a dissertation by Lopez (1985). These women expressed satisfaction with their current positions, most of which were in the mid-management level. Their expectations were low, however, about advancement up the administrative career ladder.

Summary

Research on job satisfaction extends back to the early 1900s and continues to be of interest today. As a result, there are literally thousands of reports in the literature on this topic. Job satisfaction is generally defined as being an affective response by individuals resulting from an appraisal of their work role in the job that they presently hold. The emphasis of study has evolved over the years from the influence of physical working conditions and salary on job satisfaction to the effect of personal relationships of workers with their supervisors and co-workers on job attitudes, to the current emphasis on the role of work itself in the self-development of individuals in a manner they find satisfying. The study of job

satisfaction is of significance to employers, the employees themselves, and to the broader society of which they are a part. Scholars continue to debate about whether high levels of job satisfaction cause increased performance or vice versa or some variation in the association of the two. It appears, however, that there is substantial evidence that job satisfaction is inversely related to turnover and absenteeism and directly related to improved self-concept and physical health.

The level of global job satisfaction in this country has been and continues to be high. Eighty-five percent of the respondents in a 1989 national survey said that they were very or moderately satisfied with the work they do. Some researchers, however, have found that a cohort effect of age has caused a decline in positive attitudes toward work since World War II. They predict this will continue to decrease the general level of job satisfaction in the years ahead as present employees retire and are replaced in the workforce. The conceptual theories of job satisfaction have been synthesized into two broad categories. One category is referred to as process theories which include the stimulus-response theory, the expectancy theory, and the equity theory. The other category is called content theories which includes the theory of prepotent hierarchial needs, the motivator-hygiene theory and theory V.

Job satisfaction is measured globally to establish a general level of satisfaction or dimensionally to determine the various facets or variables of job satisfaction. Job satisfaction variables which have been identified and measured with dimensional instruments are

financial rewards, working conditions, supervisory practices, company policies, coworkers, opportunities for advancement, security, and content of the job. The JDI has been identified as one of the most carefully developed instruments of this nature. Job satisfaction is usually measured by means of a verbal or written self-report. Standardized job satisfaction instruments, such as the JDI, are available but it is more common for investigators to use tailor-made questionnaires.

Correlation research design has been the method most frequently used to study job satisfaction in attempts to associate intrinsic work factors and extrinsic environmental conditions of the job with behavioral, demographic, and organizational factors. There have been very few attempts to test the relationship between personality variables and job satisfaction and limited studies using experimental and case study designs.

The correlates of job satisfaction appear to come under one of three broad classes. They are behavioral actions such as performance, turnover, absenteeism, theft, and sabotage; demographic variables such as age, job tenure, gender, educational level, and ethnic group affiliation; and organizational factors such as size of the work group, size of the organization, and the job level.

Blue-collar workers were the subjects most typically studied in early research projects concerning job satisfaction. This was followed by the study of white-collar workers, but, interest in studying those at managerial levels did not develop until the early 1960s. The study of job satisfaction among faculty and administrators

at institutions of higher education is an even more recent development.

Analysis of job satisfaction trends among faculty at four-year colleges and universities show a decline in level of overall satisfaction and indicate that dissatisfaction is greatest relative to relations with administrators and salary. A comprehensive national study of faculty at liberal arts colleges is underway to determine faculty morale and the organizational conditions that influence it. Contrary to many research studies in industrial and business settings, the initial findings of this study show a strong association between faculty job satisfaction and performance.

Most reports of job satisfaction among administrators of colleges and universities did not begin to appear until the mid- 1970s. Of those which have been conducted, none have limited the study to upper level academic administrators drawn from a random sample of the existing population of four-year colleges and universities as was done in the present study. As a result, based on the information currently available in the professional literature, it is not possible to determine the level of global and dimensional job satisfaction of this population and use it as a basis for comparison to other managers and administrators in noneducational settings.

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CHAPTER III

PROCEDURES USED FOR COLLECTION OF THE DATA

Introduction

Three hundred thirty-two academic administrators at 136 randomly selected institutions of higher education received a questionnaire designed to measure their perceived job satisfaction. The sample was stratified to correspond to the proportion of research universities, doctorate-granting institutions, comprehensive colleges and universities, and liberal arts colleges as they occur in the population based on data published by the Carnegie Foundation for the Advancement of Teaching (1987). The survey instrument was composed of demographic items, a standardized global job satisfaction question as used in the General Social Surveys (National Opinion Research Center, 1990) and the revised Job Descriptive Index (Paul, Kravitz, Balzer, & Smith, 1990) facet-specific measure of job satisfaction. Surveys were mailed late in February 1990; any responses received after May 10, 1990 were not used in the data analysis. The Statistical Package for the Social Sciences-X software program was used to analyze the 253 usable responses according to predetermined statistical procedures. This chapter will provide specific information about the research design, the survey instrument, the population under study, selection of the sample, the time frame used, and the procedures for analysis of the data.

Research Design

A status study was the research design selected to ascertain the current global and facet-specific levels of job satisfaction, and the variables by which they are affected, among the population of academic administrators at four-year colleges and universities. Warwick and Lininger (1975) refer to this design as a sample survey. They say this design is an especially useful method of scientific inquiry when there is a need for more information on a subject than currently exists. The limited amount of data on job satisfaction of administrators at American colleges and universities, as reported in the literature, justified the selection of this design for the present study.

Sample survey designs allow the precise measurement of a phenomenon such as job satisfaction. The findings of a sample survey can be used to describe a population, for building or testing hypotheses, and for evaluation, explanation, recommendation and predictions (Warwick and Lininger, 1975).

A single cross-section design was used in this study. A mail survey collected data at a specific time from a sample selected to represent the total population. Although the findings of a sample survey such as this describes the population at a certain time, it can serve another important function by representing the baseline statistics for the population which can be used for future comparisons. Such data can be the first in a series of longitudinal surveys which can be used to reveal fluctuations in rates or to trace long-term trends in job satisfaction of administrators in this organizational setting.

The research study outline was submitted for approval to the University North Texas Institutional Review Board for the Protection of Human Subjects in Research (IRB). A letter from the chair of the IRB was received stating that the project had been reviewed by the IRB " . . . under exemption category Rule #3 and is exempt from further review under 45CFR 46.101" (P. Witt, personal communication, January 15, 1990).

Instrument

The instrument used in the study (Appendix A) consisted of a single page which was printed on both sides. The front of the page contained an identification code, demographic items, and a global job satisfaction question. The reverse side of the page contained the five Job Descriptive Index scales.

Identification of the Respondent

The four-digit identification number was coded to identify respondents by the Carnegie Classification of the institution (research university, doctorate-granting institution, comprehensive university or college, or liberal arts college) which employed them, by the level of their position (president, chief academic officer, or dean of arts and sciences), and by the name of the institution with which they were affiliated. The cover letter (Appendix B) assured participants of confidentiality for themselves and their institutions.

Demographic Items

The demographic data, which was requested, supplied information relative to gender, whether the employing institution was public or private, racial/ethnic group affiliation, number of years the respondent had served in their present position, the total number of years they had been employed in higher education, their highest earned degree and the field of major in that degree, their age, and annual budgeted salary. The items were listed so that personal, and perhaps more sensitive, information such age and salary, came last in the group. More complete answers are said to occur if this sequencing is used (Kerlinger, 1986; Warwick & Lininger, 1975). Demographic items were included to provide a description of the population sampled and to determine if any of these demographic variables were associated with and predictive of the JDI scales.

Global Job Satisfaction

The global question of job satisfaction used in the survey instrument was identical to the one used in the General Social Surveys (GSS) conducted by the National Opinion Research Center from 1972-1989. The question asked was: "On the whole, how satisfied are you in the work you do?" (National Opinion Research Center, 1990, p. 217). The response choices were also the same as in the GSS: "Very satisfied, moderately satisfied, a little dissatisfied, or very dissatisfied" (National Opinion Research Center, 1990, p. 217). Responses were scored on a three point scale with very satisfied being scored as

three, moderately satisfied scored as two, a little dissatisfied scored as one, and very dissatisfied scored as zero.

The GSS has been conducted annually since 1972 to provide data for a program of social indicators research and it has been funded by the National Science Foundation. The most recent data were collected through interviews administered to a national full probability sample using a standard questionnaire. Each GSS is an independently drawn sample of English-speaking adults, 18 years of age or older, who live in non-institutional residences within the continental U.S.

The Job Descriptive Index

The revised JDI (Paul et al., 1990) was used on the reverse side of the survey instrument to collect data about facet-specific levels of job satisfaction among the respondents. The JDI originated in the Cornell Studies of Satisfaction which were begun in 1959. The authors say it is used to measure " . . . the feelings a worker has about his job" (Smith, Kendall, & Hulin, 1969, p. 6). The JDI has been documented as the most frequently used instrument to measure job satisfaction (Yeager, 1981). It consists of five separate scales: Work, Pay, Promotion, Supervision, and Coworkers. Each scale is made up of a list of descriptive phrases or adjectives beside which the respondents are ask to mark "Y" for "Yes" if it describes their job, "N" for "No" if it does not describe it, or "?" if they cannot decide whether or not the word or phrase describes their job. The JDI is an indirect type of measurement as it does not ask the respondents how satisfied they are with their work; instead it asks them to describe the work they do.

This means the respondents have a job-referent rather than a self-referent. The information gained is used to infer the respondents' job satisfaction (Smith et al., 1969).

The JDI which was used in this study is a revised edition. The revision, which was copyrighted in 1985, involved the replacement of a total of eleven items in four of the five scales; the promotion scale was not changed (Smith, Balzer, Brannick, Chia, Eggleston, Gibson, Johnson, Josephson, Paul, Reilly & Whalen, 1987). The revisions, while minor, were made for basically two reasons (Paul et al., 1990). First, cultural, historical, and technical changes since the JDI was published in 1969 were thought to have affected respondents perceptions of some of the JDI items. Thus, the language in the revised edition reflects more current usage. Secondly, new scale development techniques were available which could be used to improve the JDI's psychometric properties. The revised JDI has been extensively tested and compared to the original to establish the fact that it is indeed equivalent to or an improvement over the original instrument. Paul et al. (1990) found the internal reliability to be at least as high in one of the revised version scales and slightly higher in three of the revised scales. The range of reliability coefficients was 0.7895 to 0.9053 in one sample that was tested and 0.8443 to 0.8875 in a second sample. Paul and her colleagues also report that the two versions are almost identical in terms of overall fit (Paul et al., 1990).

The JDI is scored by weighting "Yes" responses to positively phrased items and "No" responses to negatively phrased items as a three, by weighting responses marked with a question mark or "NA" for

not applicable or those item responses left blank as a one, and by weighting "Yes" responses to a negatively phrased item and "No" responses to a positively phrased item as a zero. If 4 or more items on an 18 item scale or 3 or more items on a 9 item scale are omitted or marked "NA", the entire scale is omitted and not scored (Balzer & Smith, 1990). There is a possible score of 54 for each scale with the score for the pay and promotion scales doubled as they contain only 9 items compared to 18 items in each of the other scales (Smith et al., 1969).

Extensive normative data based on more than 2500 people from a broad range of occupations and organizational settings are available for the original JDI and is stratified by gender, educational level, and job tenure (Smith et al., 1969). The 1985 edition has norms which were transformed from the original JDI norms using equipercentile equating (Balzer & Smith, 1990). Reviewers are very positive about the quality of the JDI's construction (Crites, 1985; Robinson, Athansious, & Head, 1976) and its psychometric properties (Kerr, 1985). They attest to the fact that the JDI has good content, construct, and congruent validity and adequate reliability. Corrected split-half internal consistency coefficients are reported to exceed 0.80 for each of the scales. Factor analysis has shown the five scales to be discriminantly different (Jung, Dalessio, & Johnson, 1986).

The JDI also receives favorable comments about its practicality. The instrument takes only five to ten minutes to complete and the language is easily understood (Kerr, 1985). Disadvantages cited are lack of control for social desirability, the possibility that the JDI may be less applicable for gifted adults, and the lack of a test manual

(Crites, 1985; Kerr, 1985; Robinson et al. 1976). In response to these later two concerns, Smith et al. say the JDI is applicable " . . . across a wide variety of educational levels ranging from no formal schooling to the PhD degree and to persons on jobs from janitors to top management" (Smith et al., 1969, p. 150). Also, a test manual has been prepared and is forthcoming. A mimeographed copy of the test manual (Balzer and Smith, 1990) was available for use in this study.

The JDI was selected for this study because it is a standardized instrument of proven quality which has been extensively used in many different occupational settings. The JDI findings from this study will allow comparison of college administrators to comparable managers in other organizations. As Smart and Morstain point out:

> The use of standardized job satisfaction instruments in institutions of higher learning appears more appropriate now than ever before given the changing climate within which colleges and universities function, their adoption of various business-oriented management tools, and the attraction to the academic community of more individuals who possess skills and interests similar to managers in industrial and business organizations (Smart & Morstain, 1975, p. 2).

Field Test of the Instrument

The field test of the instrument (Appendix A) and its cover letter (Appendix B) was performed by seven deans at a doctorate-granting university in mid-February. They were asked to review and comment on the cover letter, the scope and wording of the demographic items of the

instrument, and the format of the entire instrument. This was determined to be sufficient field testing because the instrument contained a standardized global job satisfaction question and a standardized facet-specific measure of job satisfaction. All seven reviewers responded, and, as a result, two changes were made in the wording of the demographic items. The suggestion was also made that the cover letter contain the fact that the survey was being sent to a sample of only 332 individuals in order to help stress the importance of responding. This information was incorporated into the cover letter that was sent to follow-up nonrespondents.

The Population

The population consisted of deans of colleges of arts and sciences, chief academic officers, and presidents who were serving at all institutions classified by the Carnegie Foundation for the Advancement of Teaching (1987) as research universities, doctorate-granting institutions, comprehensive universities and colleges, and liberal arts colleges in the United States. The population was estimated to be approximately 3568 individuals, based on three academic administrators at each of the research and doctorate-granting institutions and comprehensive universities and colleges and two academic administrators at each of the liberal arts colleges. The liberal arts colleges, and a few of the smaller comprehensive colleges and universities, typically have only one administrator as the chief academic officer and usually title this person as either the vice

president for academic affairs, dean of the faculty, or dean of the college.

Selection of the Sample

A stratified random sample (N=332) of administrators from 136 different four-year colleges and universities was selected using sampling without replacement to ensure that all institutional classifications included in the study were proportionately represented according to Carnegie Foundation for the Advancement of Teaching (1987) data. Stratified sampling is the process of dividing a population into subgroups or strata in order to carry out separate selection in each one. A primary reason to use stratified sampling techniques is to improve the representativeness of the sample (Warwick & Lininger, 1975). As a result of the stratification, 7.5 percent of the sample were from research universities, 7.9 percent of the sample were from doctorate-granting institutions, 43.1 percent from comprehensive universities and colleges, and 41.5 percent from liberal arts colleges. The Carnegie Foundation for the Advancement of Teaching (1987) reference, *A Classification of Institutions of Higher Education*, was used as the list from which the institutions to be included in the sample were randomly selected.

Determination of the absolute sample size was based on the need for a sample which would be large enough to keep sampling error to a minimum (Warwick & Lininger, 1975) and to provide at least 20-30 responses in each strata for data analysis (E. McCallum, personal communication, January 16, 1990) balanced with the need to keep cost factors in a practical range (Balian, 1982). Eight percent of the

population from the research, doctorate-granting, and comprehensive institution strata and 12 percent of the population from the liberal arts stratum were randomly selected for inclusion in the sample (see Table 1). This difference in sampling ratios was due to the fact that only two administrators from each liberal arts college in the sample were sent surveys.

Table 1

Data Used to Develop the Proportional Stratified Random Sample

Carnegie Classification of Institution	Percentage of Total	Number	Positions	Sampling Fraction
Research	7.5	105	x3= 312	x0.08= 25
Doctorate-granting	7.9	109	x3= 327	x0.08= 26
Comprehensive	43.1	595	x3=1785	x0.08=143
Liberal Arts	41.5	572	x3=1144	x0.12=138
TOTAL	100.0	1381	3568	332

The names and addresses of the administrators at the institutions that were randomly selected from these groupings were obtained from the reference source, *The hep 1990 Higher Education Directory* (Torregrosa, 1990). The codes and descriptions of the administrative officers in this reference were as follows:

> 01) Chief Executive Officer (President/Chancellor). Directs all affairs and operations of a higher education institution; (02) Chief Executive Officer within a system (President/Chancellor). Directs all affairs and operations of a campus or an institution which is part of a university-wide system. [If a university which

> is part of a system was randomly selected, the (02) code was used for the president of the main campus in the system instead of the (01) code]; (05) Chief Academic Officer. Directs the academic program of the institution. (49) Dean/Director of Art and Sciences. Serves as the principal administrator for these programs. [If a university did not have a dean of arts and sciences, the codes (57) Dean/Director of Fine Arts, or (79) Dean/Director of Humanities, or (81) Dean/Director of Mathematics/Sciences were alternately used.] (Torregrosa, 1990, p. xxi).

No deans were included from liberal arts colleges; only (01) and (05) codes were used for these institutions. Deans of colleges of arts and sciences were included from the other three strata. The college of arts and sciences was selected because it is a very common division appearing on the organizational chart of all universities, whereas a college such as business is not found so universally.

Time Frame

The survey instrument (Appendix A), cover letter (Appendix B), and a stamped addressed return envelope were mailed to the sample on February 26, 1990. A response date of March 31, 1990 was requested. On April 7, 1990 nonrespondents were mailed a post card reminder (Appendix C). Those who had not responded by April 15, 1990 received a new cover letter (Appendix D), survey instrument, and stamped, addressed return envelope. Telephone calls were made to remaining nonrespondents from the research university stratum on April 30, 1990.

Only nonrespondents in this stratum were called as this was the one group with a response rate below 60 percent as of that date. A postmark of May 10, 1990 was used as a final cutoff date for data to be included in the study.

Response Rate

A low response rate is a potential disadvantage of survey research. A minimum response rate of 60 percent was sought to insure the use of inferential statistical analyses. To help provide this response rate the cover letter was written to convey high trust that a credible organization sponsored the study, that the profession would benefit from the research, and that the cost in time to the respondent was minimal. Use of a survey which took no longer than ten minutes to complete, and inclusion of an addressed, stamped envelope for ease of return helped to reinforce these perceptions and encouraged survey recipients to respond (Warwick & Lininger, 1975). Follow-up waves at one- and two-week intervals after the requested return date consisted of a postcard; another cover letter, instrument, and return envelope; and a telephone call, in that order. An overall response rate of 76 percent or 253 usable responses were received before the cutoff date.

Procedures for Analysis of the Data

The data were coded and submitted to the University of North Texas Academic Computing Center for data entry. The Software Package for the Social Sciences-X (SPSS-X) (Norusis, 1988) was the software used for data analyses procedures. The level of significance was set at $p > .05$.

Research questions 1 and 3 were answered by calculating the measures of central tendency and standard deviations of global job satisfaction and the five JDI job facets of Work, Pay, Promotion, Supervision, and Coworkers respectively. Research question 2 was answered with a t-test of the difference between the sample means. Research questions 4 and 5 were answered using a two-way analysis of variance. Research question 6 was answered using multiple regression analysis (Kachigan, 1988).

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CHAPTER IV

FINDINGS

Introduction

The data were analyzed using the Statistical Program for the Social Sciences (SPSS-X) software package. The findings, as they are related to the purposes of the study, are reported in this chapter, with one exception. That exception is purpose seven which was "to make recommendations for improving morale among academic administrators, if the findings warrant." This purpose will be addressed in Chapter V.

There were a total of 253 usable responses, out of 259, received by the cut-off date. Six surveys were returned that had notes on them saying the recipient did not wish to participate, that the study was not relevant to their job, or that the addressee was no longer there. Three completed surveys were received after the cut-off date but were not included. The 253 usable responses represent an overall response rate of 76 percent. Since the response rate from administrators at research universities was 50 percent, these responses were combined with responses from administrators at doctorate-granting institutions (71 percent) giving this combined category of research/doctorate-granting university administrators a response rate of 61 percent. The response rate from administrators at comprehensive universities and colleges was 81 percent and the response rate from those at liberal arts colleges was 78 percent.

Not all surveys included complete data. Missing data were treated using the default option of the SPSS-X program and were coded using the number nine. When using descriptive procedures in the data analysis, default deletes cases with missing values on a variable by variable basis. Cases which are missing data on a variable are not included in the summary statistic for that variable, but, the same cases are included for other variables when those values are present. Missing data are labeled as such in frequency tables and they are not included in the valid and cumulative percentage figures. By default, t-test procedures delete cases with missing data on an analysis-by-analysis basis. Cases missing on either the grouping variable or the analysis variable are excluded from the analysis for independent-samples tests. Analysis of variance (ANOVA) procedures, by default, delete any cases that are missing data for any variable named in the analysis list for all analyses that are specified. Regression is computed, by default, using only cases with nonmissing values on all variables selected for analysis (Norusis, 1988).

Level of Global Job Satisfaction

One purpose of the study was to document the level of global job satisfaction among academic administrators at selected U.S. colleges and universities. The global level of job satisfaction was determined by asking respondents the same question as was asked in the 1989 General Social Survey (GSS): "On the whole, how satisfied are you with the work you do?" (National Opinion Research Center, 1990). The respondents were asked to select one of the following choices which

were also the same responses offered in the GSS: "very satisfied" which was scored as three points, "moderately satisfied" which was scored as two points, "a little dissatisfied" which was scored as one point, or "very dissatisfied" which was scored as zero. The findings are presented in the following frequency table (Table 2).

Table 2

Global Job Satisfaction Level of Study Respondents

Value Label	Value	Frequency	Percent	Valid Percent	Cumulative Percent
Very Dissatisfied	0	4	1.6	1.6	1.6
Little Dissatisfied	1	12	4.7	4.8	6.4
Moderately Satisfied	2	76	30.0	30.4	36.8
Very Satisfied	3	158	62.5	63.2	100.0
	9	3	1.2	Missing	
		253	100.0	100.0	

The mean global job satisfaction score for the academic administrators in this sample was 2.552 (on a scale of 0-3) and the standard deviation was 0.664. A large proportion of the respondents (93.6 percent) were either very satisfied or moderately satisfied with their jobs and well over half were very satisfied.

Comparison of Global Job Satisfaction Levels

Another purpose of the study was to compare the level of global job satisfaction of the academic administrators in this study to other administrators/ managers in business, industry, and government settings. This was achieved by using data from the 1989 GSS which had

the same job satisfaction question and response choices. Only those GSS respondents who were employed full-time (30 or more hours per week) and whose occupation was coded as being managerial/administrative were used. The GSS responses (Group 2, *N*=135) were recoded to give the same values to the response choices as had been used in this study (Group 1, *N*=250). The results of a t-test comparison of Group 1 and Group 2 are displayed in Table 3.

Table 3

T-Test of Global Job Satisfaction Scores

Group	No. of Cases	Mean	Standard Deviation	Standard Error	Separate Variance Estimate		
					T-Value	D of F	2-Tail Prob.
1	250	2.5520	0.664	0.042			
					1.67	229.53	0.097
2	135	2.4148	0.823	0.071			

Note. Group 1=Study Respondents; Group 2=General Social Survey Respondents.

An examination of the separate variance estimate shows no significant difference in the level of job satisfaction between these two samples of administrators, academic and general. The separate variance estimate was selected, as opposed to the pooled variance estimate, because the observed significance level (p=.004, two-tailed) for the F value (1.54) was small. A small level of significance indicates that the population variances of the two groups are unequal and the

separate variance estimate is said to give a truer probability level (Norusis, 1988).

JDI Scores for the Sample as a Whole

In addition to determining the global level of job satisfaction among academic administrators, the study was also designed for the purpose of learning the levels of their facet-specific or dimensional job satisfaction. From these data, sources of satisfaction and dissatisfaction were identified. The instrument used for this purpose was the revised Job Descriptive Index (JDI) (Paul, Kravitz, Balzer, & Smith, 1990). The respondents' mean and median scores on the five JDI scales are presented in Table 4.

Table 4

JDI Scores

	Results for Entire Sample			National Norm
JDI Scale	Valid N	Mean	Median	Median
Work	244	39.213	40.0	47.0
Pay	224	38.897	42.0	45.0
Supervision	218	42.096	46.0	47.0
Promotion	193	25.161	20.0	22.0
Coworkers	238	45.689	48.0	48.0

Note. Each scale has a possible score range of 0-54. National norms are for persons with ≥17 years of education.

The scores for the study respondents can be interpreted first of all in terms of absolute levels of satisfaction within the study group itself. The JDI users' manual (Balzer & Smith, 1990) states that a middle range score of 27 should be used as a "neutral point" in interpreting absolute JDI scores for each scale. "Scores well above 27 (i.e., 32 or

above) indicate satisfaction, while those well below 27 (i.e., 22 or below) indicate dissatisfaction" (Balzer & Smith, 1990, p. 23). Using this frame of reference, the mean scores of the respondents for Work, Pay, Supervision, and Coworkers are all well above 31 which can be interpreted to mean that they are satisfied with these four facets of their jobs. The average score for Promotion, however, is 25 which is interpreted as neutral or neither satisfied nor dissatisfied with opportunities for advancement.

The JDI scores of the study respondents can also be interpreted in terms of the relative satisfaction of academic administrators in higher education compared to employees in other organizations. This was done by using the relevant JDI norm table for employees with 17 or more years of education. The JDI norm tables allow comparison of survey respondents to a national group in percentile terms. The JDI users' manual directs investigators to use median scores, rather than mean scores, when making relative comparisons " . . . because the distribution of employees' JDI scores may make the mean scale score a biased index of employee satisfaction" (Balzer & Smith, 1990, p. 25).

In comparing the median scores of this sample to the median scores for the normative sample, it can be seen in Table 4 that the scores of the respondents are all within 3 percentile points or less of the normative scores except for the Work score. The JDI users' manual (Balzer & Smith, 1990) advises that a median sample score which falls outside to the 25th to the 75th percentile of the normative scores should be interpreted to mean the respondents are more (if above the 75th percentile) or less (if below the 25th percentile) satisfied than

comparable workers in other organizations. The median Work score of this sample (40) is the only scale score to fall outside the normative range, falling just below the 25th percentile of the normative score (42). As a result, the respondents in this study are slightly less satisfied with the work itself compared to national norms for this facet of their job.

Job Satisfaction by Academic Positions and Carnegie Classification

Two additional purposes of this study were to determine if there was a difference in JDI job satisfactions among the three levels of academic administrators (presidents, chief academic officers, and deans) who responded to the survey and if there was a difference in JDI job satisfactions among the respondents based on the Carnegie classification of the institutions at which they were employed (research/doctorate-granting institutions, comprehensive universities and colleges, and liberal arts colleges). A two-way analysis of variance (ANOVA) was performed on the data to make these determinations.

The two-way ANOVA design was used, in preference to the one-way design, to determine if there was a significant interaction between the level of the administrative positions of the respondents and the Carnegie classification of their employing institutions, in addition to the main effect of each of these factors. Kachigan (1986) states that a principal reason for testing the interaction effect of predictor variables (administrative position and Carnegie classification of respondents' institutional affiliation) on the criterion variable (JDI

scale scores), rather than looking at the overall effect of each variable by itself, is to prevent researchers from making generalizations from their data that are misleading. The results of two-way ANOVA for each of the JDI criterion scales is given in Table 5.

Table 5

Two-Way ANOVA: JDI Scale Scores by the Predictor Variables of Administrative Position and Carnegie Classification

JDI Scale Scores	Sig. of F for Two-Way Interaction	Sig. of F for Administrative Position Main Effect	Sig. of F for Carnegie Classification Main Effect	Missing Cases
Work	.466	.011*	.637	9
Pay	.531	.381	.308	29
Supervision	.554	.049*	.606	35
Promotion	.416	.001*	.171	60
Coworkers	.539	.426	.571	15

Note: * $p \leq .05$.

As seen in Table 5, there was no significant interaction effect of administrative position and Carnegie classification on any of the five JDI scale scores. In addition, the Carnegie classification of the respondents' employing institution had no significant effect on any of the JDI criterion variables.

The level of the respondents' administrative position, however, had a significant effect on the JDI scale scores for Work, Supervision, and Promotion. Although the F statistics indicate that the population means for these three scales are probably unequal, they do not pinpoint where the specific differences are.

Multiple comparison tests were conducted on these three scales to determine which group(s) of academic administrators differed significantly from the other(s). The Scheffé multiple comparison test was selected over the other tests available in SPSS-X as it provides the most assurance that a Type I error with a probability greater than alpha will not be made. The Scheffé method is conservative and requires a larger difference between means for significance than other methods (Kachigan, 1986; Norusis, 1988). The pairs of means that are significantly different for the various groups on the JDI scales of Work, Supervision, and Promotion, respectively are shown in Tables 6, 7, and 8.

Table 6

Scheffé Multiple Comparison of JDI Work Scores by Administrative Position

Mean Score	Group	3	2	1
36.7083	3			
37.8302	2			
42.1778	1	*	*	

Note. Group 1=Presidents, Group 2=Chief Academic Officers, Group 3=Deans; *Pairs of means that are significantly different at $p \leq .05$.

Table 7

Scheffé Multiple Comparison of JDI Supervision Scores by Administrative Position

Mean Score	Group	3	2	1
38.5208	3			
41.8381	2			
45.1538	1	*		

Note. Group 1=Presidents, Group 2=Chief Academic Officers, Group 3=Deans; *Pairs of means that are significantly different at $p \leq .05$.

Table 8

Scheffé Multiple Comparison of JDI Promotion by Administrative Position

Mean Score	Group	3	2	1
19.2222	3			
25.4239	2			
29.5000	1	*		

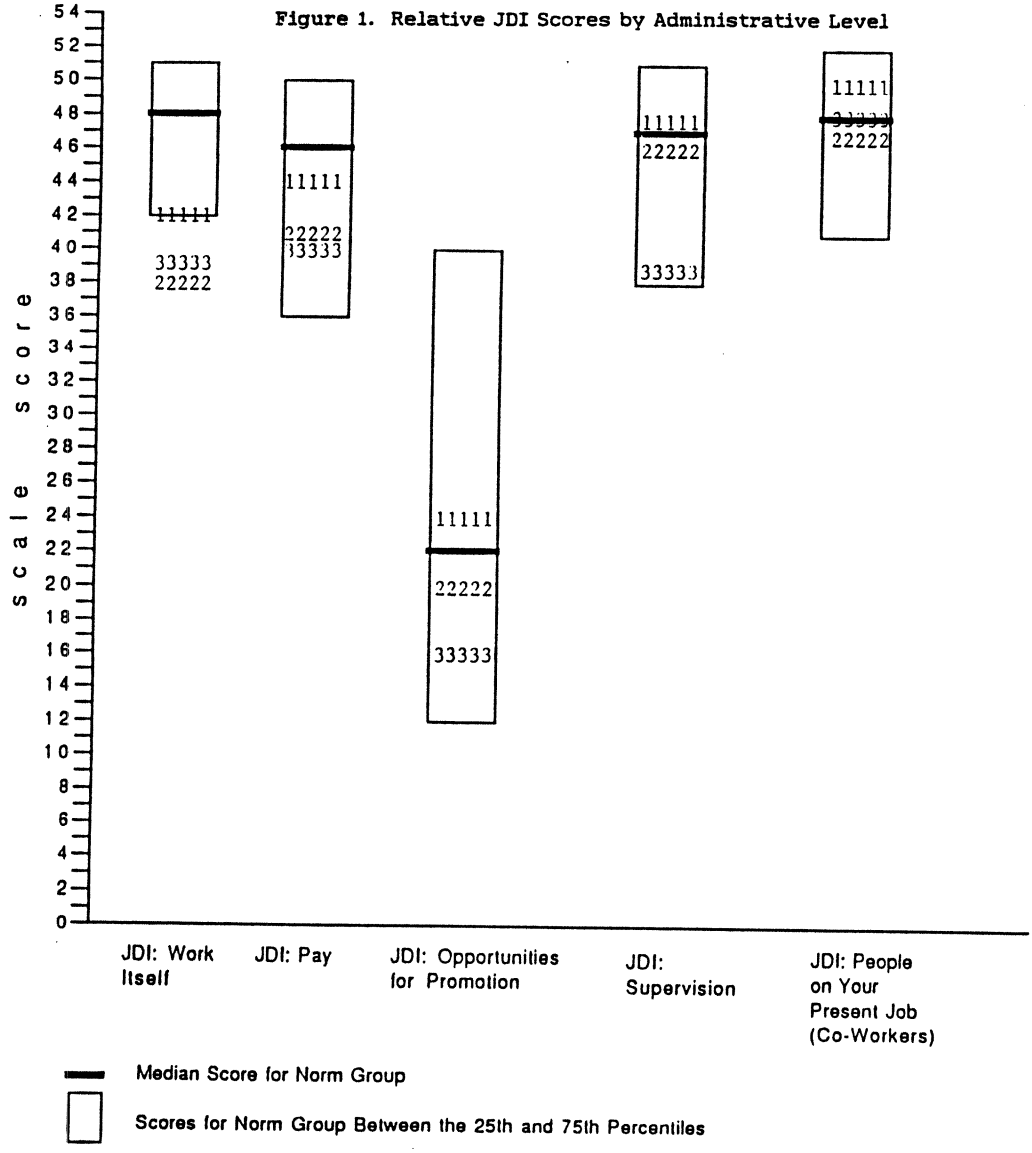
Note. Group 1=Presidents, Group 2=Chief Academic Officers, Group 3=Deans; *Pairs of means that are significantly different at $p \leq .05$.

The data presented in Table 6 shows a difference in the mean JDI Work scale scores with presidents having significantly higher scores than chief academic officers and deans. The data presented in Tables 7 and 8 show presidents to have significantly higher mean scores on the Supervision and the Promotion scales than deans.

The median JDI scores for each of the 3 levels of administrators in the study were also compared to median JDI scores for a normative group who had 17 or more years of education. This data is presented in Figure 1. When median scores were evaluated it was determined that both chief academic officers and deans were less satisfied than the national norm group. Their median scores of 38 and 39, for chief academic officers and deans respectively, are lower than the score of the 25th percentile (42) for the norm group. The presidents' median Work score of 42 is at the norm group's 25th percentile. The median scores for each administrator subgroup on the other JDI scales all fall within the 25-75th percentile range of the normative data indicating these subgroups are not more or less satisfied than the comparison

group on the Pay, Supervision, Promotion, and Coworkers facets of their jobs.

Figure 1. Relative JDI Scores by Administrative Level



Demographic Predictions of JDI Scores

The study was also designed to build a regression model which could be used to predict JDI scale scores based on demographic information. The demographic variables of gender, ethnicity or race, age, highest earned degree, number of years of service in present position, salary, and employment by a public or private institution were the predictor variables selected for analysis with each of the five JDI scales as the dependent or criterion variables. Such an analysis can contribute to the identification of variables which are predictive of JDI scale scores and assess the relative degree to which each predictor variable accounts for variance in these scores (Kachigan, 1986).

The qualitative variables (gender, ethnicity, highest earned degree, and employment by a public or private institution) were converted to dummy or indicator variables before running multiple regression tests. Each level of the qualitative variables were changed to a binary variable and coded as 0 or 1 (Kachigan, 1986; Norusis, 1988).

The multiple regression test was run to include all predictor variables for each of the five JDI scales as the criterion or dependent variables. An examination of the R square for each dependent JDI scale revealed that the predictor variables accounted for less than 10 percent of the variance in the dependent variables in all of the scales except Pay. The R square for the Pay facet was .25.

Based on this initial multiple regression test, the significant variables for the Pay facet were further tested using stepwise multiple regression. The SPSS-X manual says the stepwise process ". . . is probably the most commonly used procedure in regression" (Norusis, 1988, p. 174). It is described as a combination of forward and backward selection processes. The first variable considered for entry into the equation is the one that has the highest correlation with the dependent variable. The variable was entered into the equation only if the probability associated with the F test was less than or equal to .05. If the first variable selected for entry met this criterion for inclusion the procedure continues; if not, the procedure terminates with no variables in the equation. If the first variable passes the criterion, a second variable is selected based on the next highest partial correlation coefficient and, if it passes the entry criterion, it too enters the equation. The first criterion is then examined to determine whether it should be removed according to a removal criterion which is set at a level less than the entry criterion. After each step variables already in the equation are evaluated for removal. Variable selection ends when no other variables meet entry and removal criteria (Norusis, 1988). Stepwise procedures provide an economical account of the variance of the criterion variable (Kachigan, 1986).

The following table displays the variables in the equation for the Pay facet of the JDI.

Table 9

Multiple Regression for the JDI Pay Scale

	Variable Entered on Step Number 1: Salary
Multiple R	.43414
R Square	.18848
Adjusted R Square	.18454
Standard Error	11.33434

Variable in the equation

Variable	B	SE B	Beta	T	Sig. T
Salary	2.07162E-04	2.9950E-05	.434141	6.917	.0000
Constant	23.60095	2.318481		10.179	.0000

	Variable Entered on Step Number 2: Public/Private Institution
Multiple R	.45482
R Square	.20686
Adjusted R Square	.19913
Standard Error	11.23252

Variable in the Equation

Variable	B	SE B	Beta	T	Sig. T
Salary	2.17713E-04	3.0073E-05	.456253	7.240	.0000
Pub/Priv Inst	-3.553177	1.630007	-.137380	-2.180	.0304
Constant	24.164098	2.312175		10.513	.0000

Note. *N*=208.

The multiple regression equation presented in Table 9 shows that two of the demographic variables, salary and the public versus private status of the employing institution, can be used to predict scores on the JDI Pay facet and account for approximately 21 percent

of the variance in this scale score. The relative importance of these two predictor variables can be assessed by looking at the BETA coefficients at each step. These are coefficients of the independent variables that are expressed in standardized (Z-score) form (Norusis, 1988). It should be noted that salary is by far the more important contributor to the equation having a BETA coefficient of .434141 when it was the only variable in the equation; the BETA coefficient increased to only .456253 when the public versus private status of the employing institution was entered into the equation.

Description of the Sample

Frequencies and statistics for the demographic variables of survey respondents are presented in Appendix E. Using these data, a profile of the average survey respondent was drawn. The typical academic administrator who returned a survey in this study was a male (77%), caucasian (92.1%) chief academic officer (42.3%) in a private (62.5%), comprehensive university or college (45.5%). He had served in his position for an average of 6.5 years (the median was 5 years, however) and had been employed in higher education for an average of 23 years. His highest degree was a doctorate (90.5%) with a generic major in the humanities/fine arts (36.4%) and history was his specific major (9.5%). This typical respondent was 52 years old and earned an annual budgeted salary of $73,829.

Nonstatistical Findings

The survey used for the purposes of this study did not ask for comments. Yet some administrators wrote opinions on the form which

can help to explain a few of the statistical findings. Selected responses which seem to characterize the attitudes of these respondents are reported here.

There were only three comments about the JDI scales in general: "Forced choices are never satisfactory." "I find the questionnaire too ambiguous to answer 'yes' or 'no.' If you provide a 1-10 scale I would be happy to do so." "Lacks sensitivity to the variety of experiences and colleagues in academe."

The Promotion scale of the JDI elicited the most responses. these comments, primarily made by presidents and chief academic officers, may help explain why 24 percent of the respondents did not answer this scale. Several presidents commented simply that the Promotion scale was "not applicable." Other comments by presidents were: "I've arrived where I want to be." "President cannot be promoted." "How does one get promoted from CEO position?" "CEO--end of the line."

Almost as many chief academic officers made comments as did presidents about the Promotion scale of the JDI. Some of these comments were: "Promoted to what? These are already top level positions." "This does not apply to my position internally. Opportunities for higher position, however, are good externally." "Not here. Would have to leave for [a] presidency." "If you're a vice president and don't want to be a president there is no significance to promotion questions." "These do not apply well to those of us in senior levels." "Since I am second, there is not much chance here." "No place to go." " I don't see myself as president but that's the only

position to which I could be promoted." The longest comment was: "Survival is the goal, not promotion! This is not a dead-end job; it offers all the challenge I could ever want! People don't leave this job by promotion--they 'escape' by a lateral move or returning to haven of professional bliss!"

Presidents also had comments about the Supervision scale of the JDI. Fourteen percent of the respondents did not complete this scale. Several of the presidents quotes follow: "I work for a lay board." "CEO--no direct supervision." "President [is] not supervised." "The board does not really supervise a president." " I report to a board." "Does not seem to apply to a CEO."

The Coworker scale was the only other JDI scale which received comments. A dean wrote: "Hard group to identify." Another comment was: "I'm a president. This doesn't seem appropriate." A chief academic officer said: "I don't know how anyone can describe all coworkers with a single term. Almost every term applies to some coworkers but not to other. I have some coworkers who are great! Others are a disaster."

Most respondents did have a perception of coworkers, however, as only 6 percent failed to complete this section of the survey. There were no comments relative to Pay (12 percent left this scale incomplete) nor were any opinions offered about the Work scale and only 4 percent of the respondents did not complete this section of the JDI.

Summary

A total of 253 usable survey responses were received for an overall response rate of 76 percent. This represents a response rate of 61 percent or greater in each of the Carnegie classifications (research/doctorate-granting, comprehensive universities and colleges, and liberal arts colleges) upon which the sample was stratified. The survey data were analyzed using the SPSS-X software package and the findings, as they were related to the first six purposes of the study, were reported in this chapter.

The mean level of global job satisfaction of the survey respondents was 2.552 on a 3 point scale. Over half (63.2 percent) of the administrators were very satisfied with their jobs. The level of global job satisfaction of the respondents was then compared to that of administrators/managers in all types of organizational settings who responded to the same global job satisfaction question in a national survey conducted in 1989. A t-test found no significant difference in the level of global job satisfaction between administrators in educational and all organizational settings.

Analysis of the respondents scores as a group on the JDI scales of Work, Pay, Supervision, Promotion, and Coworkers provided information about their facet-specific levels of job satisfaction. The mean JDI scores, when interpreted in terms of the absolute levels of satisfaction within the study group itself, reveal that academic administrators as a group are satisfied with their work, pay, supervision, and coworkers. They feel neutral, or neither satisfied nor dissatisfied, with their opportunities for promotion.

The median JDI scores of the respondents as a group were also interpreted in comparison to normative scores for the JDI using the norm table for individuals with seventeen or more years of education. In terms of relative facet-specific satisfactions of academic administrators compared to employees in other organizations, the study respondents were comparably satisfied with Pay, Supervision, Promotion, and Coworkers. However, as a group, the study respondents were slightly less satisfied than the normative group with the Work facet of their jobs.

A two-way ANOVA demonstrated that there was no significant interaction between the respondents level of administrative position and the Carnegie classification of the institution where they were employed which effected their JDI scale scores. In addition, the Carnegie classification of the respondents institution did not have a significant main effect on any of the JDI scale scores.

The level of the respondents administrative position, however, did show that it had a significant main effect on the respondents JDI scores for Work, Supervision, and Promotion in the two-way ANOVA test. The Scheffé multiple comparison test was conducted to determine where the specific differences in mean scores were located among the three levels of administrators. It was found that presidents score significantly higher as a group on the Work scale than both chief academic officers and deans. The presidents also scored significantly higher than the deans on the Supervision and Promotion scales. Comparison of median scores for each administrator subgroup to JDI

normative data showed chief academic officers and deans to be less satisfied than a comparable national norm group on the Work scale.

Multiple regression was used to determine which, if any, of the seven demographic variables included in the study could be used to predict JDI scores. None of the predictor variables contributed over 10 percent of the variance in any JDI scale score except for the Pay facet. A stepwise multiple regression equation was derived for the JDI Pay scale. The predictor variables of salary and the public versus private nature of the respondents employing institution accounted for 20.686 percent of the variance in the Pay variable with the salary variable being the more important relative contributor of the two. A discussion of these findings, the conclusions drawn from them, and recommendations based on the findings will be presented in Chapter V.

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CHAPTER V

SUMMARY, DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

This chapter summarizes the design and execution of the study, and the findings that resulted concerning job satisfaction among academic administrators at selected U.S. colleges and universities. The findings are discussed as they are related to the purposes for the study and the conclusions reached are enumerated. In addition, recommendations for future research are presented along with potential application of the findings for higher education.

Summary

Concern over the high turnover rate in senior level administrative positions at U.S. colleges and universities, based on data of the American Council on Education (Anderson, 1981), the College and University Personnel Association, and the Association of Governing Boards of Universities and Colleges (Jacobson, 1984), initiated the interest in this study. Previous research (Mobley, Griffeth, Hand, & Meglino, 1979) has shown a moderate negative correlation between turnover and job satisfaction. While turnover among administrators had been documented, the level of their job satisfaction had not.

This study was designed as a cross-sectional status study to determine the level of job satisfaction among academic administrators at four-year institutions of higher education. Specifically, the study

was structured to determine both the global level of job satisfaction and the dimensional levels of job satisfaction for academic administrators. These findings for academic administrators were contrasted to comparable managers in other types of organizations in the private business community and the public sector. Additional purposes of the study were to determine if academic administrators varied in job satisfaction according to the level of the positions they held, the Carnegie classification of the institution at which they were employed, or their selected demographic factors.

Job satisfaction was operationally defined as the affective response of people to the conditions of their job. For the purposes of this study an academic administrator was described as a dean of a college of arts and sciences, chief academic officer, or president at a four-year college or university.

The population of academic administrators which fits this description was estimated to be just over 3500 people. A stratified random sample of 332 administrators was selected for inclusion in the study. Stratification was based on the Carnegie classification of institutions (Carnegie Foundation for the Advancement of Teaching, 1987) to insure that the administrators in the sample would be proportionally represented from research universities, doctorate-granting institutions, comprehensive universities and colleges, and liberal arts colleges.

The survey instrument used in the study (Appendix A) was composed of demographic items, a global job satisfaction question which had been used annually in a national social survey since 1972

(National Opinion Research Center, 1990), and a standardized dimensional job satisfaction instrument, the revised Job Descriptive Index (JDI) (Paul, Kravitz, Balzer, and Smith, 1990). The JDI has been the most commonly used instrument to collect affective job responses since it was developed in the late 1950s. Its continued popularity is due largely to the high regard with which researchers view its psychometric characteristics. Extensive normative data are available for the revised JDI. The normative tables selected for comparison of the sample in this study were the data representing the various JDI scales for people with 17 years or more of education.

Two hundred fifty-three responses were processed for data analysis. This represented an overall return rate of 76 percent with a minimum response rate of 61 percent in each Carnegie classification strata. The Software Package for the Social Sciences-X (SPSS-X) was used to analyze the data. The level of significance was set at $p \leq .05$. Missing data were treated using the default mechanism of SPSS-X.

Analysis of the global level of job satisfaction of the study respondents showed a mean response of 2.6 on a 3 point scale where 0 was very dissatisfied, 1 was a little dissatisfied, 2 was moderately satisfied, and 3 was very satisfied. A "very satisfied" response was given by 63.2 percent of the respondents. A t-test found no significant difference in the level of global job satisfaction among the respondents from that of administrators/managers in all types of organizational settings who responded to the same question in the 1989 General Social Survey.

The respondents scores on the JDI scales were analyzed from both absolute and relative perspectives. In terms of absolute satisfaction, academic administrators as a group are satisfied with their work, pay, supervision, and coworkers. They felt neutral about their opportunities for promotion. In terms of relative satisfactions for these facets of their jobs, the respondent, in comparison to JDI normative data figures for individuals with a comparably high level of education, were not satisfied with the content of their work.

The results of a two-way analysis of variance (ANOVA) demonstrated that there was no significant interaction between the level of the respondents academic administrative position and the Carnegie classification of the college or university at which they were employed that was effecting their JDI scores. Additionally, the Carnegie classification did not have a significant main effect on any of the five JDI scores.

The level of the respondents administrator position, however, did effect their mean JDI scores for Work, Supervision, and Promotion. Presidents had significantly higher mean scores on the Work scale than both chief academic officers and deans and significantly higher scores than deans on the Supervision and Promotion scale. When median JDI scores for each level of administrator position were analyzed, it was determined that chief academic officers and deans were dissatisfied with the Work facet of the JDI compared to the norm group. All other JDI scale scores for each administrator subgroup fell within the 25th to 75th percentile range for the norm group data.

Based on multiple regression analysis of seven demographic variables, salary and the private versus public status of the respondents' institutions accounted for almost 21 percent of the variance in the Salary scale scores of the JDI. Other demographic predictor variables in the analysis accounted of less than 10 percent of the variance in the other four JDI scales.

A profile of the respondents, developed from the means of the demographic data (Appendix E), showed the typical respondent to be a 52 year old, male, caucasian chief academic officer affiliated with a private comprehensive university or college. He was currently earning $74,000. He had served in this position for 6.5 years, and had been employed in higher education for a total of 23 years. The median length of time respondents had served in their positions, however, was only 5 years. This typical respondent held a doctorate and his major field of study was history.

Unsolicited comments on the survey forms indicated that many presidents and chief academic officers questioned the applicability of Promotion and Supervision scales of the JDI to their senior level positions. This no doubt accounted for the fact that 24 and 14 percent of these scales respectively were not completed on the returned surveys.

Discussion

The first purpose of the study was to document the global level of job satisfaction among selected U.S. college and university academic administrators. The data analysis showed that a large proportion of

the study respondents (93.6 percent) were either very or moderately satisfied with their jobs. Only 4.8 percent were a little dissatisfied and as few as 1.6 percent were very dissatisfied. This global job satisfaction for academic administrators is well above the overall level of 85 percent for a national random sample of U.S. workers who were ask the same job satisfaction question in a 1989 survey, the General Social Survey (National Opinion Research Center, 1990).

These findings are consistent with findings from previous research studies showing managers to be among the occupational categories having the highest levels of job satisfaction (Morse, 1953; Porter and Lawler, 1965; Quinn, Staines, & McCullough, 1974; Weaver, 1980). These findings also confirm this pattern by showing administrators in higher education to be more satisfied with their jobs than faculty were. Locke, Fitzpatrick, and White (1983) concluded that the faculty in their study had a mean global job satisfaction score that they interpreted as being only moderately satisfied. Willie and Stecklein (1982) found a downward trend in faculty job satisfaction with only 32.5 percent of their sample stating they were very satisfied. This is contrasted to 63.2 percent of the administrators in this study who expressed the same attitude.

The findings in the study showing a high level of global job satisfaction among administrators is also consistent with the limited research findings from other studies which have measured segments of this same population. Solomon and Tierney (1977) found a generally high degree of satisfaction among administrators at private liberal

arts colleges and Boone (1987) reached the same conclusion using a convenience sample of college and university administrators.

Another purpose of the study was to compare the level of global job satisfaction of academic administrators to that of administrators/managers in all types of organizational settings. As recently as 1975 no studies had focused on the job satisfaction of higher education administrators using standardized instruments which could allow statistical comparisons to be made (Smart & Morstain, 1975). While standardized instruments have since been used, no documentation of statistical comparisons of global job satisfaction levels for college and university administrators to that of administrators/managers in business, industry, or other types of public service agencies could be found in the literature.

Such a comparison was made in this study using the responses of the administrator/managers surveyed in the 1989 General Social Survey (National Opinion Research Center, 1990) to the same global job satisfaction question as was asked of the academic administrators at four-year institutions of higher education. Analysis of the data showed no significant differences between these two groups. This does not seem surprising in view of the fact that the nature of an administrator's or manager's work is essentially the same (planning, organizing, leading, staffing, and controlling) regardless of the type of organization in which it is carried out.

The identification of specific sources of satisfaction and dissatisfaction among college administrators was another purpose of the study. The revised JDI (Paul, Kravitz, Balzer, & Smith, 1990) was

used for this purpose. This standardized instrument measures facet specific job attitudes on five scales: Work, Pay, Supervision, Promotion, and Coworkers. There is a possible range of 0 to 54 points on each scale.

JDI scores are interpreted from both an absolute and relative perspective (Balzer & Smith, 1990). When the mean JDI scores for all academic administrators in this study were evaluated in an absolute sense, independent from any comparison group, it was found that the respondents as a group were satisfied with the Work (mean=39.2), Pay (mean=38.9), Supervision (mean=42.1), and Coworkers (mean=45.7) facets of their jobs. They were neither satisfied nor dissatisfied with the Promotion (mean=25.2) facet of their jobs. The finding that administrators feel neutral about their opportunities for promotion are born out by some unsolicited comments from presidents and chief academic officers to the effect that these are senior level positions and the individuals in them have basically arrived at where they want to be.

The findings that academic administrators in this study are satisfied in an absolute sense with the work, supervision, and coworkers facets of their jobs are as anticipated. The finding that they are satisfied with the pay dimension of the JDI is somewhat surprising when data is available that shows salaries on college campuses to lag behind those in the corporate world (Jacobson, 1984). Unfortunately, there are no previous research studies to which JDI scores on this population can be compared in order to note changes or

trends which may have occurred in recent years related to this, or any other, JDI job facet.

The sources of job satisfaction and dissatisfaction for all academic administrators in the sample was also identified by interpreting their JDI scores from a relative perspective. In comparing this groups' median scores to JDI normative data for people with a comparable level of education, it was found that they are as satisfied with Pay (median=42), Supervision (median=46), Promotion (median=20), and Coworkers (median=48) as are the norm group. Academic administrators are less satisfied with the Work facet of their job (median=40) than the norm group. Forty-two is the JDI Work scale score for the 25th percentile of the norm group. Just what aspect or aspects of administrators' work is dissatisfying cannot be identified from the JDI instrument as each item on the Work scale contributes points to the total scale score but is not analyzed separately. There is a need to follow-up on this finding using an instrument which can obtain a more precise evaluation to explain the dissatisfaction of administrators with the nature of their work.

Two additional purposes of this study were to determine if there was a significant difference among the three levels of administrator positions included in the study and among the three levels of Carnegie classifications of the institutions at which these administrators were employed. A two-way ANOVA found no significant interaction between these two variables as they effected respondents' JDI scores. In addition, the Carnegie classification of the respondents' employing institutions had no significant main effect on any of the JDI scores.

This is somewhat surprising in light of a previous job satisfaction study (Porter & Lawler, 1965) which found managers in upper level positions at large companies had greater job need fulfillment than those in small companies. While the Carnegie classification system (Carnegie Foundation for the Advancement of Teaching, 1987) is based on several factors, there is a relative difference in size and complexity between research/doctorate-granting multiversities, comprehensive universities and colleges, and liberal arts colleges. This organizational factor is not effecting the JDI job satisfaction scores of administrators, however.

The two-way ANOVA did show that the level of the respondents' administrator position had a significant effect on their mean JDI scores for the Work, Supervision, and Promotion scales. The Scheffé multiple comparison test identified where the specific differences were. Presidents (mean=42.2) had significantly higher scores than both chief academic officers (mean=37.8) and deans (mean=36.7) on the Work scale. Presidents (mean=45.2) also had significantly higher scores than deans (mean=38.5) on the Supervision scale of the JDI. Likewise, presidents (mean=29.5) had significantly higher scores than deans (mean=19.2) on the Promotion scale. This may help to explain why data from the American Council on Education (Anderson, 1981) shows the highest turnover rates among these three positions are for deans of arts science at 19.2 percent/year, closely followed by chief academic officers at 18.2 percent/year but dropping to 10.6 percent/year for presidents.

When median scores for each administrative subgroup were analyzed and compared to normative data, it was found that the Work scale scores for academic vice presidents (median=38) and deans (median=39) were below the 25th percentile score range for a comparable national norm group. This is interpreted as evidence that these administrators are dissatisfied with the nature of the work involved in their positions. There is no previous research which has used a standardized instrument to differentiate facet-specific job satisfaction among a random national sample of academic administrators, therefore, no parallels between the JDI findings of this study and those of other studies can be drawn.

Another purpose of the study was to determine if academic administrators vary in job satisfaction according to demographic variables. The multiple regression test, using data collected from seven of the demographic variables included in the study, found that the Pay facet was the only one of the JDI scales to have a variance greater than 10 percent which could be attributed to these variables. Almost 21 percent of the variance in the Pay score was accounted for by the respondents' salaries and the public or private nature of the institutions which employed them. Of these two demographic variables, salary accounted for the relatively greater amount of variance, as one would expect. It is interesting to note, however, that those administrators at a private institution are at an advantage in the resulting stepwise multiple regression equation which can be used to predict scores on the Pay facet of the JDI for this population.

These findings concerning demographic variables support conclusions arrived at by Locke (1969) that demographic variables usually have a low correlation coefficient with job satisfaction. Nagle (1987) found no statistically significant association between demographic variables and job satisfaction in a study of community college administrators. Boone (1986) reported that age was the most significant demographic predictor in his study of a convenience sample of college administrators accounting for 6.8 percent of their job satisfaction as measured by a different instrument than the one used in this study.

An examination of the descriptive statistics for the demographic data showed the sample to be a homogeneous group in terms of ethnicity (92 percent caucasian) and highest earned degree (91 percent held the doctorate). Twenty-two percent of these academic administrative positions are held by women. Sixty-three percent of the respondents were affiliated with private institutions. It was surprising that only 6 percent of the administrators in the sample had a major in higher education, an area specifically designed to develop professionals who should be well qualified to perform effectively in these roles. While the average length of time the respondents had been employed in some aspect of higher education was 23 years, 6.5 was the average number of years the respondents had held their present positions and this figure dropped to 5 years for the median length of time in position. This low figure would seem to verify that there is still a high turnover rate in senior level positions. Such a brief job

tenure is not sufficient time for an administrator to achieve long-term institutional goals.

While there was no purpose of the study designed to collect comments about the merit of the JDI instrument, some unsolicited comments were written on the survey forms. The Promotion scale prompted the most responses from both presidents and chief academic officers. Many comments were to the effect that the individuals had arrived where they wanted to be and, therefore, this scale was not applicable. Other comments were to the effect that there was no possibility of being promoted at the institution where they were currently employed but opportunities were good if they were willing to make a move. Recommendations for the place of this scale in the JDI as it is administered to academic administrators in the future will, therefore, be addressed.

Several presidents also made comments questioning the applicability of the JDI Supervision scale to their position. The nature of the comments were to the effect that the board of trustees has little or no supervision over the president. This may surprise board members who traditionally have been charged with the evaluation of the president and are called " . . . the keystone of the governance structure of higher education" in a report by the Carnegie Foundation for the Advancement of Teaching (1982, p. 72). The retention of this scale in the JDI, as it is administered to academic administrators in the future, will also be addressed in the recommendations.

Conclusions

The conclusion that were reached as a result of this study are:

1. The global level of job satisfaction among academic administrators is high and does not differ from administrators/managers employed in all types of organizational settings. Global job satisfaction could be deceptive, however, if used as the only criterion to measure job satisfaction in this population.

2. The most pressing issue of concern, as identified by the dimensional job satisfaction instrument, is the dissatisfaction with the nature of the work as expressed by chief academic officers and dean.

3. Deans are also significantly less satisfied than presidents with the supervision they receive in their jobs and promotion opportunities.

4. The Carnegie classification of the institutions at which administrators are employed has no effect on any dimension of their job satisfaction as measured in this study.

5. The demographic variables of gender, race, age, highest degree, number of years of service in present position, salary, and employment by a public or private institution do not exert a major influence on morale of academic administrators.

6. Administrators in this sample had been in their positions a relatively short period of time. This could indicate that high turnover in these positions is still occurring. Such brief job tenure is a handicap to institutions in need of leadership for long-term goals.

7. The JDI instrument provided good documentation as to the current level of job satisfaction among college and university administrators. There is a need for longitudinal data collection, however, in order to make meaningful comparisons and document trends over time.

Recommendations

Recommendations For Future Research

As stated in the conclusions, the most pressing issue of concern, as found in this study, is the dissatisfaction with the nature of the work as expressed by the chief academic officers and deans. Turnover rates have been increasing in these positions and the median length of time in the current position, as determined for this sample, was only 5 years. Therefore, it is recommended that a follow-up survey using the Short Form of the Job Diagnostic Survey (JDS) (Hackman & Oldham, 1975) be administered to the same sample. The JDS is a standardized instrument which was designed to measure perceived job content, specifically: variety, autonomy, task identity, feedback, and significance. The JDS could be used to identify what is causing the dissatisfaction in this dimension of their job. Once this information is available, corrective actions can be taken with better assurance of success in improving administrators satisfaction with the work they do.

Another approach to improving this dimension of job satisfaction could be similar to what is being done by the Council of Independent Colleges in its study of faculty job satisfaction (Rice & Austin, 1988).

This would involve the selection of a number of colleges and universities, whose administrators had high scores on the JDI Work scale in this sample, for inclusion in a group of institutions who would serve as case study sites. In depth interviews with the presidents, chief academic officers, and dean on these campuses could help determine what organizational and personality factors are associated with a high level of satisfaction with the nature of the work required in these position.

Based on the fact that no national study of facet-specific job satisfaction among academic administrators has been done utilizing a randomly selected sample, previous to this study, it is not possible to plot changes and trends in job satisfaction that have occurred. As a result, this study can provide useful information about the status of satisfaction among these administrators as of this time but its finding cannot be compared to what may have been the status five or ten years ago. It is common knowledge, however, that there are internal and external environmental changes which are affecting the jobs of the people who hold these important positions in higher education. If the high turnover rate among presidents, chief academic officers, and deans is to be reduced, job satisfaction must be monitored on a continuing and regular basis. It is only when areas of dissatisfaction are identified that the root causes can be investigated and corrected. It is recommended, therefore, that the JDI be administered to a stratified random sample of academic administrators every five years to establish a data bank of current and longitudinal information for those concerned with this problem.

The administration of the JDI on an ongoing basis would be best managed by a higher education association such as the American Council on Education or a higher education research center at a major university such as the Higher Education Research Institute at the University of California, Los Angeles. This would assure credibility and consistency to the study and provide the necessary funding, analytical, and reporting capabilities.

A major sponsor for the collection of longitudinal JDI data on academic administrators could also overcome the limitations of this study and provide the funds for the survey to be sent to a larger sample. A means of acquiring a higher response rate from administrators at research and doctorate-granting institutions should also be sought. This would allow the data for these two strata to be analyzed separately instead of being combined, as was done in this study.

A final recommendation for the future administration of the JDI to academic administrators is that the revised JDI (Paul, Kravitz, Balzer, & Smith, 1990) remain intact and that all five scales continue to be used. Despite some comments to the contrary, the Supervision scale is as applicable to presidents as it is to other administrators. It can track a meaningful perception of their relationship to their institution's board of trustees.

The Promotion scale, while recommended for use in the same format in the future, could have instruction for responding that would be better suited to this population. Respondents might also be asked to indicate if they are in the highest position they desire to be in, if

they would consider a lateral move to another institution, or if they would consider a move to a higher position at another institution. The Promotion scale scores could then be analyzed and reported by these categories and provide more meaningful information for this facet of the JDI.

Recommendations For Application To Practice

One purpose of this study was to make recommendations for improving morale among academic administrators, if the findings warranted. When the global level of job satisfaction among academic administrators is considered by itself, on could get a false impression that there is little or no room for improvement. When the facet-specific aspects of job satisfaction are examined, however, the picture changes. Clearly, the findings indicate that relative satisfaction with the content of the job or the work itself is low. Compared to JDI scores on normative data, presidents are at the 25th percentile of the normative data score range and chief academic officers and deans are well below. The findings also show a significant difference in JDI mean scores between presidents and the chief academic officers and deans on the Work scale and between presidents and deans on the Supervision and Promotion scales. These are areas where specific attention by campus change agents should be directed and areas that prospective job applicants for administrative positions should question and investigate.

Keller (1983) states that colleges and universities are one of the largest industries in the nation yet they are among the least well-managed organizations. There are several managerial techniques that

have been used successfully by the business community which could be applied in higher education and potentially lead to greater satisfaction of its administrators. Such techniques as job analysis and design, realistic job descriptions and interviews for job applicants, job enrichment, training and development, use of executive search firms to reach highly qualified candidates, and careful matching of people to the position could be used to improve satisfaction with the nature of the work itself. The level of satisfaction with supervision might be improved by applying such techniques as management by objectives, establishing specific performance appraisal criteria, scheduling regular executive staff meetings, and mentoring of new administrators. Improving satisfaction in the area of promotion opportunities is more challenging but other means for conferring status, other than promotion, can be utilized such as recognition by peers, awards, and office arrangements.

The findings and conclusions of this study show that academic administrators at four-year institutions of higher education perceive dissatisfaction in some facets of their jobs, particularly with the nature of the work they are required to perform. Techniques are available to bring about improvements. The only way to document that positive change does occur as a result and to identify new areas of dissatisfaction that may emerge is with the use of a standardized instrument to measure trends in job satisfaction over time. The consequences of dissatisfaction are detrimental not only to the quality of work life of the individual administrator but to their institutions and the publics they serve. Therefore, early recognition

of job dimensions which are in need of improvement should help in the retention of administrators who can provide long-term leadership in higher education.

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APPENDIX A

SURVEY INSTRUMENT

SURVEY OF JOB SATISFACTION AMONG COLLEGE and UNIVERSITY ADMINISTRATORS

Code Number:_____

DEMOGRAPHIC DATA

Please check the information which applies to you.

1. Gender: Male____ Female____

2. Employing institution: Public____ Private____

3. Racial/ethnic group:

____White/Caucasian ____Black/African-American
____American Indian ____Asian-American
____Hispanic ____Other

Please provide the following information.

4. Number of years you have served in your present position:_____

5. Total number of years you have been employed full-time in higher education including your present position:_____

6. Highest earned degree:_____

7. Field of major in your highest degree:_____

8. Age: _____ 9. Annual budgeted salary:_____

GLOBAL JOB SATISFACTION QUESTION

10. On the whole, how satisfied are you with the work you do?

Please check one: Very satisfied____ Moderately satisfied____

A little dissatisfied____ Very dissatisfied____

JOB DESCRIPTIVE INDEX

The Job Descriptive Index (JDI) is printed on the reverse side of this page. The JDI uses words or brief phrases to describe jobs relative to the work one does; pay or salary received; coworkers or other administrators, faculty, and staff with whom one works; opportunities for promotion to a higher academic position; and supervision or direction from the person to whom one is immediately responsible such as the academic vice president, president or board of trustees. **Please turn the page over and follow the directions for responding to the JDI.**

JOB DESCRIPTIVE INDEX

Please put a Y for "yes" beside the items that describe that particular aspect of your job, put N for "no" if it does not describe that aspect of your job, or put a ? if you cannot decide. **Place one of these three responses on the line by each word or phrase below.**

WORK ON PRESENT JOB

____Fascinating
____Routine
____Satisfying
____Boring
____Good
____Creative
____Respected
____Uncomfortable
____Pleasant
____Useful
____Tiring
____Healthful
____Challenging
____Too much to do
____Frustrating
____Simple
____Repetitive
____Gives sense of accomplishment

PRESENT PAY

____Income adequate for normal expenses
____Fair
____Barely live on income
____Bad
____Income provides luxuries
____Insecure
____Less than I deserve
____Well paid
____Underpaid

SUPERVISION

____Asks my advice
____Hard to please
____Impolite
____Praises good work
____Tactful
____Influential
____Up-to-date
____Doesn't supervise enough
____Has favorites
____Tells me where I stand
____Annoying
____Stubborn
____Knows job well
____Bad
____Intelligent
____Poor planner
____Around when needed
____Lazy

OPPORTUNITIES FOR PROMOTION

____Good opportunities for promotion
____Opportunities somewhat limited
____Promotion on ability
____Dead end job
____Good chance for promotion
____Unfair promotion policy
____Infrequent promotion
____Regular promotions
____Fairly good chance for promotion

COWORKERS

____Stimulating
____Boring
____Slow
____Helpful
____Stupid
____Responsible
____Fast
____Intelligent
____Easy to make enemies
____Talk too much
____Smart
____Lazy
____Unpleasant
____Gossipy
____Active
____Narrow Interests
____Loyal
____Stubborn

Please check here if you wish to receive an abstract of the study:_____

APPENDIX B

COVER LETTER 1

February 26, 1990

(Inside Address)

Dear _____:

At the University of North Texas we are conducting a research project to determine job satisfaction among American college and university administrators. The study is focused on academic administrators: presidents, chief academic officers and deans of colleges of arts and sciences. This mailing is being sent to you and other administrators as part of a stratified random sample. Although your participation is voluntary, your response is very important to the validity of this study. We ask, therefore, that you please take approximately ten minutes to respond to this one-page survey and return it in the enclosed postage paid envelope. While the surveys are coded to tabulate the responses, your confidentiality and that of your institution is assured.

Our research findings will be submitted for publication in a national journal of higher education, but we will be happy to send you an abstract of the study, if you desire. The findings will document the current level of morale among academic administrators at institutions of higher education ranging from research universities to liberal arts colleges. Specific areas of dissatisfaction will be determined according to the level of the position and by the Carnegie Foundation classifica-tion of institutions. The results can serve as the impetus for action by regulatory agencies, foundations, associations, and individual institutions to address areas identified as being in need of improvement.

We would appreciate your response by March 31, 1990. Thank you in advance for your cooperation.

Sincerely,

Nancy L. Glick, MS
Doctoral Candidate

Approved by:

Howard W. Smith, Jr., EdD
Major Professor
Higher And Adult Education

APPENDIX C

POSTCARD REMINDER

University of North Texas
Office of Policy Studies in Higher Education
College of Education
P.O. Box 13857
Denton, TX 76203-3857

Just a reminder asking you to complete the Job Satisfaction Survey that was sent to you on March 1. You are part of a stratified random sample of 332 academic administrators at American colleges and universities who are being asked to participate. Your response is very important to the validity of the study. Thank you for taking the time to complete the survey instrument (it will take you only a few minutes) and for returning it in the stamped envelope that was enclosed with the survey.

APPENDIX D

COVER LETTER 2

April 12, 1990

(Inside address)

Dear :

Last month you received a request to complete a survey designed to measure job satisfaction of academic administrators at American colleges and universities. Because we have not received your response, we are sending you another survey instrument and an addressed, stamped return envelope. We are asking that you please complete the survey (it will only take you a few minutes) and return it to us by May 10.

This study involves responses from presidents, chief academic officers, and deans of colleges of arts and sciences. The research design is a stratified random sample of administrators holding these positions at research universities, doctorate-granting universities, comprehensive colleges and universities, and liberal arts colleges. You are part of a sample of only 332 administrators; your response, therefore, is vital to assure that the sample is truly representative.

We want to assure you that your response and the name of your institution will remain completely confidential. Our interest is in group data only and we will not report or otherwise divulge any individual responses.

We appreciate your cooperation in this study and are looking forward to receiving your completed survey instrument.

Sincerely,

Nancy L. Glick, MS
Doctoral Candidate

Approved by:

Howard W. Smith, Jr., EdD
Major Professor
Higher And Adult Education

APPENDIX E

DEMOGRAPHIC DATA

TABLES 10-21

Table 10

Carnegie Classification Of Respondents' Employing Institutions

V2 CARNEGIE CLASSIFICATION

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
RES/DOC	1	31	12.3	12.3	12.3
COMPREHENSIVE	2	115	45.5	45.5	57.7
LIBERAL ARTS	3	107	42.3	42.3	100.0
	TOTAL	253	100.0	100.0	

MEAN	2.300	STD ERR	.043	MEDIAN	2.000
MODE	2.000	STD DEV	.676	VARIANCE	.457
KURTOSIS	-.794	S E KURT	.305	SKEWNESS	-.449
S E SKEW	.153	RANGE	2.000	MINIMUM	1.000
MAXIMUM	3.000	SUM	582.000		

VALID CASES 253 MISSING CASES 0

Table 11

Respondents' Administrative Positions

V3 ACADEMIC LEVEL

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
PRESIDENT	1	97	38.3	38.3	38.3
ACADEMIC VP	2	107	42.3	42.3	80.6
DEAN	3	49	19.4	19.4	100.0
	TOTAL	253	100.0	100.0	

MEAN	1.810	STD ERR	.046	MEDIAN	2.000
MODE	2.000	STD DEV	.737	VARIANCE	.543
KURTOSIS	-1.106	S E KURT	.305	SKEWNESS	.316
S E SKEW	.153	RANGE	2.000	MINIMUM	1.000
MAXIMUM	3.000	SUM	458.000		

VALID CASES 253 MISSING CASES 0

Table 12

Respondents' Gender

V4 GENDER

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
MALE	1	197	77.9	77.9	77.9
FEMALE	2	56	22.1	22.1	100.0
	TOTAL	253	100.0	100.0	

MEAN	1.221	STD ERR	.026	MEDIAN	1.000
MODE	1.000	STD DEV	.416	VARIANCE	.173
KURTOSIS	-.178	S E KURT	.305	SKEWNESS	1.350
S E SKEW	.153	RANGE	1.000	MINIMUM	1.000
MAXIMUM	2.000	SUM	309.000		

VALID CASES 253 MISSING CASES 0

Table 13

Public/Private Status of Institutions At Which Respondents Were Employed

V5 INST. PUBLIC/PRIVATE

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
PUBLIC	1	95	37.5	37.5	37.5
PRIVATE	2	158	62.5	62.5	100.0
	TOTAL	253	100.0	100.0	

MEAN	1.625	STD ERR	.031	MEDIAN	2.000
MODE	2.000	STD DEV	.485	VARIANCE	.235
KURTOSIS	-1.746	S E KURT	.305	SKEWNESS	-.517
S E SKEW	.153	RANGE	1.000	MINIMUM	1.000
MAXIMUM	2.000	SUM	411.000		

VALID CASES 253 MISSING CASES 0

Table 14

Respondents' Race

V6 RACE

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
CAUCASIAN	1	233	92.1	92.1	92.1
BLACK	4	18	7.1	7.1	99.2
ASIAN	5	2	.8	.8	100.0
	TOTAL	253	100.0	100.0	

MEAN	1.245	STD ERR	.053	MEDIAN	1.000
MODE	1.000	STD DEV	.842	VARIANCE	.710
KURTOSIS	8.550	S E KURT	.305	SKEWNESS	3.204
S E SKEW	.153	RANGE	4.000	MINIMUM	1.000
MAXIMUM	5.000	SUM	315.000		

VALID CASES 253 MISSING CASES 0

Table 15

Respondents' Highest Degree

V9 HIGHEST DEGREE

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
BACHELOR'S	1	3	1.2	1.2	1.2
MASTER'S	2	16	6.3	6.3	7.5
DOCTORATE	3	229	90.5	90.5	98.0
OTHER	4	5	2.0	2.0	100.0
	TOTAL	253	100.0	100.0	

MEAN	2.933	STD ERR	.022	MEDIAN	3.000
MODE	3.000	STD DEV	.356	VARIANCE	.126
KURTOSIS	12.341	S E KURT	.305	SKEWNESS	-2.536
S E SKEW	.153	RANGE	3.000	MINIMUM	1.000
MAXIMUM	4.000	SUM	742.000		

VALID CASES 253 MISSING CASES 0

Table 16

Number Of Years Respondents Have Been In Their Present Position

V7 NUMBER OF YRS/PRESENT

VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
0	1	.4	.4	.4
1	35	13.8	13.8	14.2
2	25	9.9	9.9	24.1
3	41	16.2	16.2	40.3
4	24	9.5	9.5	49.8
5	21	8.3	8.3	58.1
6	14	5.5	5.5	63.6
7	14	5.5	5.5	69.2
8	5	2.0	2.0	71.1
9	15	5.9	5.9	77.1
10	12	4.7	4.7	81.8
11	7	2.8	2.8	84.6
12	3	1.2	1.2	85.8
13	5	2.0	2.0	87.7
14	6	2.4	2.4	90.1
15	2	.8	.8	90.9
16	2	.8	.8	91.7
17	3	1.2	1.2	92.9
18	3	1.2	1.2	94.1
19	4	1.6	1.6	95.7
20	4	1.6	1.6	97.2
21	3	1.2	1.2	98.4
24	1	.4	.4	98.8
25	1	.4	.4	99.2
26	2	.8	.8	100.0
TOTAL	253	100.0	100.0	

MEAN	6.462	STD ERR	.350	MEDIAN	5.000
MODE	3.000	STD DEV	5.561	VARIANCE	30.924
KURTOSIS	1.533	S E KURT	.305	SKEWNESS	1.405
S E SKEW	.153	RANGE	26.000	MINIMUM	.000
MAXIMUM	26.000	SUM	1635.000		

VALID CASES 253 MISSING CASES 0

Table 17

Total Number Of Years Respondents Have Been Employed In Higher Education

V8 NUMBER OF YRS/TOTAL

VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
3	1	.4	.4	.4
4	1	.4	.4	.8
5	3	1.2	1.2	2.0
6	1	.4	.4	2.4
7	1	.4	.4	2.8
9	1	.4	.4	3.2
10	3	1.2	1.2	4.4
11	1	.4	.4	4.8
12	8	3.2	3.2	7.9
13	6	2.4	2.4	10.3
15	11	4.3	4.4	14.7
16	4	1.6	1.6	16.3
17	3	1.2	1.2	17.5
18	10	4.0	4.0	21.4
19	8	3.2	3.2	24.6
20	28	11.1	11.1	35.7
21	15	5.9	6.0	41.7
22	13	5.1	5.2	46.8
23	17	6.7	6.7	53.6
24	13	5.1	5.2	58.7
25	24	9.5	9.5	68.3
26	10	4.0	4.0	72.2
27	10	4.0	4.0	76.2
28	10	4.0	4.0	80.2
29	6	2.4	2.4	82.5
30	11	4.3	4.4	86.9
31	6	2.4	2.4	89.3
32	2	.8	.8	90.1
33	7	2.8	2.8	92.9
34	3	1.2	1.2	94.0
35	5	2.0	2.0	96.0
38	2	.8	.8	96.8
39	3	1.2	1.2	98.0
40	1	.4	.4	98.4
41	1	.4	.4	98.8
42	1	.4	.4	99.2
45	2	.8	.8	100.0
99	1	.4	MISSING	
TOTAL	253	100.0	100.0	

MEAN	23.067	STD ERR	.458	MEDIAN	23.000
MODE	20.000	STD DEV	7.267	VARIANCE	52.812
KURTOSIS	.662	S E KURT	.306	SKEWNESS	.078
S E SKEW	.153	RANGE	42.000	MINIMUM	3.000
MAXIMUM	45.000	SUM	5813.000		

VALID CASES 252 MISSING CASES 1

Table 18

Respondents' Field Of Generic Major In Their Highest Degree

V10 GENERIC MAJOR

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
HUMANITIES/FINE ARTS	0	92	36.4	36.4	36.4
SOCIAL SCIENCES	1	36	14.2	14.2	50.6
SCIENCE/TECHNOLOGY	2	49	19.4	19.4	70.0
EDUCATION	3	48	19.0	19.0	88.9
ENGINEERING	4	5	2.0	2.0	90.9
BUSINESS	5	8	3.2	3.2	94.1
MEDICINE	6	1	.4	.4	94.5
LAW	7	2	.8	.8	95.3
RELIGION/THEOLOGY	8	12	4.7	4.7	100.0
	TOTAL	253	100.0	100.0	

MEAN	1.794	STD ERR	.127	MEDIAN	1.000
MODE	.000	STD DEV	2.023	VARIANCE	4.093
KURTOSIS	2.207	S E KURT	.305	SKEWNESS	1.486
S E SKEW	.153	RANGE	8.000	MINIMUM	.000
MAXIMUM	8.000	SUM	454.000		

VALID CASES 253 MISSING CASES 0

Table 19

Respondents' Specific Major In Their Highest Degree

V11 SPECIFIC MAJOR

VALUE LABEL	VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
ADMINISTRATION	1	1	.4	.4	.4
AD. AND SUPERVISION	2	1	.4	.4	.8
AG. ECONOMICS	3	1	.4	.4	1.2
AM. CIVILIZATION	4	1	.4	.4	1.6
AM. LITERATURE	5	3	1.2	1.2	2.8
AM. STUDIES	6	5	2.0	2.0	4.7
ART	7	1	.4	.4	5.1
ART EDUCATION	8	1	.4	.4	5.5
BASIC MED. SCIENCE	9	1	.4	.4	5.9
BIBLICAL STUDIES	10	1	.4	.4	6.3
BIOCHEMISTRY	11	2	.8	.8	7.1
BIOLOGY	12	3	1.2	1.2	8.3
BUSINESS	13	6	2.4	2.4	10.7
BUSINESS ADMIN.	14	1	.4	.4	11.1
CHEMISTRY	15	15	5.9	5.9	17.0
CIVIL ENGINEERING	16	1	.4	.4	17.4
CLASSICAL ARCHEOLOGY	17	1	.4	.4	17.8
COMMUNICATIONS	18	1	.4	.4	18.2
COMPARATIVE EDUC.	19	1	.4	.4	18.6
COMPARATIVE LIT.	20	1	.4	.4	19.0
CONSERVATION	21	1	.4	.4	19.4
COUNSELOR EDUC.	22	2	.8	.8	20.2
CURRIC DEVEL & INST	23	1	.4	.4	20.6
ECONOMICS	24	3	1.2	1.2	21.7
EDUCATION	25	4	1.6	1.6	23.3
EDUCATIONAL ADMIN.	26	11	4.3	4.3	27.7
EDUCA. COUNSELING	27	1	.4	.4	28.1
EDUCA. PSYCHOLOGY	28	3	1.2	1.2	29.2
EDUCATIONAL RESEARCH	29	1	.4	.4	29.6
EL. ENGLISH	30	3	1.2	1.2	30.8
ELEMENTARY EDUCATION	31	1	.4	.4	31.2
ENGLISH	32	19	7.5	7.5	38.7
ENG/AM. LIT.	33	2	.8	.8	39.5
ENGLISH EDUCATION	34	1	.4	.4	39.9
ENG. LANG. & LIT.	35	1	.4	.4	40.3
FAMILY ECO.	36	1	.4	.4	40.7
FRENCH	37	2	.8	.8	41.5
GEOLOGY	38	1	.4	.4	41.9
GEOGRAPHY	39	1	.4	.4	42.3
HIGHER ED.	40	9	3.6	3.6	45.8
HIGHER ED. ADMIN.	41	5	2.0	2.0	47.8
HI. ED./CURR. & INST	42	1	.4	.4	48.2
HISTORY	43	24	9.5	9.5	57.7
HUMAN DEV & EARLY ED	44	1	.4	.4	58.1
INDUS. ARTS & TECH	45	1	.4	.4	58.5
INTERNATL. STUDIES	46	1	.4	.4	58.9
INTERNATL. RELATIONS	47	3	1.2	1.2	60.1

Table 19 Continued

Respondents' Specific Major In Their Highest Degree

V11	SPECIFIC MAJOR					
	LAW	49	2	.8	.8	60.9
	LINGUISTICS	50	1	.4	.4	61.3
	LITERATURE	51	2	.8	.8	62.1
	MATHEMATICS	52	9	3.6	3.6	65.6
	MATH. ED.	53	1	.4	.4	66.0
	MECH. ENGR.	54	1	.4	.4	66.4
	MEDICINE	55	1	.4	.4	66.8
	MICROBIOLOGY	56	1	.4	.4	67.2
	MICRO. & IMMUNOLOGY	57	1	.4	.4	67.6
	MUSIC	58	3	1.2	1.2	68.8
	MUSIC/MUSIC ED	59	1	.4	.4	69.2
	NEUROPHYSIOLOGY	60	1	.4	.4	69.6
	ORGANIC CHEM	61	2	.8	.8	70.4
	PERCUSSION PERFOR.	62	1	.4	.4	70.8
	PHILOSOPHY	63	12	4.7	4.7	75.5
	PHYSICS	65	4	1.6	1.6	77.1
	POLICY ANALYSIS	66	1	.4	.4	77.5
	POLITICAL SCIENCE	67	8	3.2	3.2	80.6
	POLIT. SCI./ECO.	68	1	.4	.4	81.0
	PROGRAM DEVEL.	69	1	.4	.4	81.4
	PSYCHOLOGY	70	5	2.0	2.0	83.4
	PUBLIC ADDRESS	71	1	.4	.4	83.8
	RADIATION PHYSICS	72	1	.4	.4	84.2
	RELIGION	73	3	1.2	1.2	85.4
	RELIGIOUS STUDIES	74	2	.8	.8	86.2
	RHETORIC/PUB. ADD.	75	1	.4	.4	86.6
	SCHOOL ADMIN.	76	1	.4	.4	87.0
	SECONDARY ED/HISTORY	77	1	.4	.4	87.4
	SLAVIC LANG. & LIT.	78	1	.4	.4	87.7
	SOCIAL ETHICS	79	1	.4	.4	88.1
	SOCIAL WELFARE	80	1	.4	.4	88.5
	SOCIAL WORK	81	1	.4	.4	88.9
	SOCIOLOGY	82	8	3.2	3.2	92.1
	SOCIO./ANTHROP.	83	1	.4	.4	92.5
	SOCIO. OF RELIGION	84	1	.4	.4	92.9
	SPANISH	85	1	.4	.4	93.3
	SPEECH COMMUNICATION	86	1	.4	.4	93.7
	SPEECH AND THEATER	87	1	.4	.4	94.1
	STATISTICS	88	1	.4	.4	94.5
	THEATER	89	1	.4	.4	94.9
	THEATER ARTS/MGMT	91	1	.4	.4	95.3
	THEATER HIST./CRIT.	92	1	.4	.4	95.7
	THEOLOGY	93	5	2.0	2.0	97.6
	WILDLIFE SCIENCE	94	1	.4	.4	98.0
	ZOOLOGY	95	2	.8	.8	98.8
	JAPANESE LIT.	96	1	.4	.4	99.2
	INORGANIC CHEM.	97	1	.4	.4	99.6
	BUSIN. POLICY	98	1	.4	.4	100.0
		TOTAL	253	100.0	100.0	

MEAN	44.735	STD ERR	1.557	MEDIAN	43.000
MODE	43.000	STD DEV	24.768	VARIANCE	613.473
KURTOSIS	-.824	S E KURT	.305	SKEWNESS	.294
S E SKEW	.153	RANGE	97.000	MINIMUM	1.000
MAXIMUM	98.000	SUM	11318.000		

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Table 20

Respondents' Salary

V13 SALARY

VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
15000	1	.4	.4	.4
16000	1	.4	.4	.9
20000	2	.8	.9	1.7
29000	1	.4	.4	2.1
30000	2	.8	.9	3.0
33500	1	.4	.4	3.4
34000	2	.8	.9	4.3
35000	2	.8	.9	5.2
37000	1	.4	.4	5.6
40000	2	.8	.9	6.4
43000	1	.4	.4	6.9
43598	1	.4	.4	7.3
44000	6	2.4	2.6	9.9
45000	4	1.6	1.7	11.6
45333	1	.4	.4	12.0
47000	1	.4	.4	12.4
47500	2	.8	.9	13.3
47900	1	.4	.4	13.7
48000	2	.8	.9	14.6
49325	1	.4	.4	15.0
49787	1	.4	.4	15.5
50000	7	2.8	3.0	18.5
50200	1	.4	.4	18.9
50757	1	.4	.4	19.3
51000	2	.8	.9	20.2
51395	1	.4	.4	20.6
53000	1	.4	.4	21.0
53420	1	.4	.4	21.5
54000	3	1.2	1.3	22.7
55000	7	2.8	3.0	25.8
56000	2	.8	.9	26.6
56400	1	.4	.4	27.0
57000	4	1.6	1.7	28.8
58000	5	2.0	2.1	30.9
59000	2	.8	.9	31.8
59690	1	.4	.4	32.2
60000	7	2.8	3.0	35.2
61000	1	.4	.4	35.6
62000	2	.8	.9	36.5
63000	3	1.2	1.3	37.8
64000	4	1.6	1.7	39.5
64260	1	.4	.4	39.9
65000	5	2.0	2.1	42.1
66000	1	.4	.4	42.5
67000	3	1.2	1.3	43.8
68000	3	1.2	1.3	45.1
70000	9	3.6	3.9	48.9

Table 20 Continued

Respondents' Salary

V13 SALARY

70926	1	.4	.4	49.4
71660	1	.4	.4	49.8
72000	2	.8	.9	50.6
72640	1	.4	.4	51.1
73000	2	.8	.9	51.9
74000	2	.8	.9	52.8
74500	1	.4	.4	53.2
75000	11	4.3	4.7	57.9
76000	3	1.2	1.3	59.2
77000	1	.4	.4	59.7
77500	1	.4	.4	60.1
78000	3	1.2	1.3	61.4
79000	1	.4	.4	61.8
80000	5	2.0	2.1	63.9
80250	1	.4	.4	64.4
80350	1	.4	.4	64.8
81000	3	1.2	1.3	66.1
81500	1	.4	.4	66.5
81900	1	.4	.4	67.0
83000	2	.8	.9	67.8
84000	4	1.6	1.7	69.5
84200	1	.4	.4	70.0
85000	4	1.6	1.7	71.7
86000	2	.8	.9	72.5
86400	2	.8	.9	73.4
87000	1	.4	.4	73.8
87500	1	.4	.4	74.2
87576	1	.4	.4	74.7
88000	3	1.2	1.3	76.0
90000	4	1.6	1.7	77.7
91000	2	.8	.9	78.5
91600	1	.4	.4	79.0
92000	1	.4	.4	79.4
93000	1	.4	.4	79.8
94000	2	.8	.9	80.7
95000	3	1.2	1.3	82.0
95280	1	.4	.4	82.4
95300	1	.4	.4	82.8
96000	1	.4	.4	83.3
99225	1	.4	.4	83.7
99900	1	.4	.4	84.1
100000	6	2.4	2.6	86.7
101000	1	.4	.4	87.1
101500	1	.4	.4	87.6
102000	1	.4	.4	88.0
103900	1	.4	.4	88.4
105000	5	2.0	2.1	90.6
106000	1	.4	.4	91.0
107000	2	.8	.9	91.8
110000	2	.8	.9	92.7
112000	1	.4	.4	93.1

Table 20 Continued

Respondents' Salary

V13 SALARY

115000	1	.4	.4	93.6
117000	1	.4	.4	94.0
118000	2	.8	.9	94.8
120000	3	1.2	1.3	96.1
127500	1	.4	.4	96.6
128000	1	.4	.4	97.0
130000	2	.8	.9	97.9
140000	1	.4	.4	98.3
147000	1	.4	.4	98.7
150000	1	.4	.4	99.1
160000	1	.4	.4	99.6
215000	1	.4	.4	100.0
999999	20	7.9	MISSING	
TOTAL	253	100.0	100.0	

MEAN	73828.635	STD ERR	1745.108	MEDIAN	72000.000
MODE	75000.000	STD DEV	26637.919	VARIANCE	709578754
KURTOSIS	3.194	S E KURT	.318	SKEWNESS	1.022
S E SKEW	.159	RANGE	200000.000	MINIMUM	15000.000
MAXIMUM	215000.000	SUM	17202072.0		

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Table 21

Respondents' Age

V12 AGE

VALUE	FREQUENCY	PERCENT	VALID PERCENT	CUM PERCENT
33	1	.4	.4	.4
39	1	.4	.4	.8
40	5	2.0	2.0	2.8
41	7	2.8	2.8	5.6
42	4	1.6	1.6	7.1
43	8	3.2	3.2	10.3
44	7	2.8	2.8	13.1
45	11	4.3	4.4	17.5
46	12	4.7	4.8	22.2
47	12	4.7	4.8	27.0
48	16	6.3	6.3	33.3
49	19	7.5	7.5	40.9
50	9	3.6	3.6	44.4
51	12	4.7	4.8	49.2
52	16	6.3	6.3	55.6
53	13	5.1	5.2	60.7
54	18	7.1	7.1	67.9
55	4	1.6	1.6	69.4
56	14	5.5	5.6	75.0
57	10	4.0	4.0	79.0
58	7	2.8	2.8	81.7
59	8	3.2	3.2	84.9
60	9	3.6	3.6	88.5
61	8	3.2	3.2	91.7
62	5	2.0	2.0	93.7
63	2	.8	.8	94.4
64	2	.8	.8	95.2
66	3	1.2	1.2	96.4
67	2	.8	.8	97.2
68	4	1.6	1.6	98.8
69	2	.8	.8	99.6
72	1	.4	.4	100.0
99	1	.4	MISSING	
TOTAL	253	100.0	100.0	

MEAN	51.992	STD ERR	.433	MEDIAN	52.000
MODE	49.000	STD DEV	6.877	VARIANCE	47.299
KURTOSIS	-.124	S E KURT	.306	SKEWNESS	.343
S E SKEW	.153	RANGE	39.000	MINIMUM	33.000
MAXIMUM	72.000	SUM	13102.000		

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