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Job satisfaction and organizational commitment among faculty at Taiwan's higher education institutions

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JOB SATISFACTION AND ORGANIZATIONAL COMMITMENT AMONG

FACULTY AT TAIWAN'S HIGHER EDUCATION INSTITUTIONS

by

Yu-Ching Huang

A DISSERTATION

Presented to the Faculty of

The Graduate College at the University of Nebraska at Omaha

In Partial Fulfillment of Requirements

For the Degree of Doctor of Education

Major: Educational Administration

Under the Supervision of Dr. Laura Schulte

Omaha, Nebraska

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DISSERTATION TITLE

Job Satisfaction and Organizational Commitment among Faculty at Taiwan's Higher Education Institutions

BY

Yu-Ching Huang

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JOB SATISFACTION AND ORGANIZATIONAL COMMITMENT AMONG

FACULTY AT TAIWAN'S HIGHER EDUCATION INSTITUTIONS

Yu-Ching Huang, Ed.D.

University of Nebraska, 2004

Advisor: Dr. Laura Schulte

The purpose of the study was to determine faculty members' level of job satisfaction and organizational commitment and to determine the relationship between job satisfaction and organizational commitment. Two types of satisfaction were surveyed: intrinsic and extrinsic factors. Three types of commitment were surveyed: affective, normative, and continuance commitment. This study was delimited to faculty members at five institutes of technology in the Mid-Taiwan area.

The results of this study indicated that most faculty members were satisfied with their current jobs. Associate professors had a higher level of extrinsic satisfaction than instructors. Faculty members with a top administrative position had a higher level of extrinsic satisfaction than those who did not take on any administrative duty. The results also indicated that faculty members operated primarily from continuance commitment followed by affective commitment and normative commitment. Instructors had stronger continuance commitment than associate professors. Male faculty members had stronger affective commitment and normative commitment than female faculty members. The statistical analyses of this study support the model by Williams and Hazer of job satisfaction as a determinant of organizational commitment.

In light of the findings, the following actions are recommended to the leaders in Taiwan's higher educational system. First, school administrators should constantly be aware of the sources of job satisfaction and dissatisfaction among faculty members. Second, school administrators should continuously redesign the workplace and improve the way they manage their faculty and staff. Third, institutes of technology should be cautious as they begin to lay off the instructors. Finally, institutes of technology should establish a contract system to require those promoted faculty members, who have used the financial support program to pursue doctoral degrees, to stay with the institutions. Moreover, in an effort to possibly increase the stability of faculty members in vocational institutions, Taiwan's education authorities should rethink the impact of the centralized management and the imbalanced appropriations and resources of universities and vocational institutions.

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TABLE OF CONTENTS

LIST OF TABLES

Chapter I

Introduction

Work-related attitudes and organizational behaviors have a significant effect on

virtually every phase of an organization's existence. The relationship between an

employee and his or her employing organization has been studied extensively (e.g.,

Argyris, 1957; Mayo, 1987; Meyer & Allen, 1997). Employee job satisfaction and

organizational commitment are among the most researched topics in the area of

organizational behavior and education because of their impact on behavior at work (Testa,

2001).

The topic of organizational commitment has continued to receive considerable

attention from both academicians and practitioners. One reason for this attention is

evidence showing that organizational commitment is an indicator of whether individuals

may be (a) merely complying with directives; (b) performing effectively in their job; or

(c) showing lower absenteeism, burnout, turnover, and tardiness (Porter, Steers, Mowday,

& Boulian, 1974; Wiener & Vardi, 1980). Organizational commitment has been defined

and measured in several different ways. Allen's and Meyer's (1990) multidimensional

commitment construct incorporating three attitudinal components--affective, continuance,

and normative commitment--has received particular attention. Affective commitment

refers to an individual's identification with, involvement in, and enjoyment of

membership in a particular organization (Mowday, Steers, & Porter, 1979). Continuance

commitment is defined as an individual's willingness to remain with an organization

based on the perceived costs of leaving (Becker, 1960). The third component of overall

organizational commitment is normative commitment, which involves a feeling of obligation to remain with an organization after joining (Wiener, 1982).

People simultaneously hold many attitudes and experience complex emotional states (Hodson, 1991). Attitudes tend to influence each other and cluster themselves (Knoop, 1995). A person who has developed a favorable attitude toward one aspect of the job, based on unique experiences, is likely to react favorably to other related aspects of the job. One variable that might be used to predict commitment is job satisfaction. Job satisfaction in the broadest sense simply refers to a person's general attitude toward the job or toward specific dimensions of the job (Hodson, 1991). It is defined as an attitude variable measuring the degree to which employees like their jobs according to the various aspects of their jobs (Spector, 1997). Although some researchers argue that commitment precedes job satisfaction (Bateman & Strasser, 1984; Culver, Wolfle, & Cross, 1990), others found no evidence that job satisfaction is either an antecedent to or an outcome of commitment (Curry, Wakefield, Price, & Mueller, 1986; Koslowsky, Caspy, & Lazar, 1991). Many investigators have determined that job satisfaction causally precedes commitment (DeCotiis & Summers, 1987; Mathieu, 1988; Mathieu & Hamel, 1989; Williams & Hazer, 1986). Porter et al. (1974) suggested that job satisfaction represents a rather unstable and immediate affective reaction to the work environment, as compared to organizational commitment, which they consider to be a rather long-term, slower developing attitude toward the organization. The result of Williams's and Hazer's study demonstrated that there was less support for a causal link from commitment to satisfaction than for a path in the reverse direction. Thus, there does

appear to be some support suggesting that job satisfaction leads to organizational commitment. In this study, it will be assumed that one who is satisfied with a job becomes highly involved in the work and committed to the organization.

Job satisfaction is the extent to which a person likes his or her job (Spector, 1997). It is a subjective response of individuals toward a given work condition. Most job satisfaction questionnaires have been based upon the two-factor theory of Herzberg, Mausner, and Snyderman (1959). This theory of job satisfaction uses both intrinsic and extrinsic factors (e.g., Minnesota Satisfaction Questionnaire and Job Diagnostic Survey). In the present study, the two-factor theory was selected as the foundation to develop the measurement of job satisfaction. The first set of factors, called motivator factors, contains components such as autonomy, advancement, recognition, responsibility, and achievement. The second set of factors, called hygiene factors, contains conditions surrounding the job, such as pay, status, policies, promotion, and job security (Robbins, 2000). Dessler (1980) posited that intrinsic rewards exert a stronger effect on organizational commitment than do extrinsic rewards. This study will seek to determine if motivator (intrinsic) factors or hygiene (extrinsic) factors are significantly related to affective, continuance, and normative commitment.

In today's world, change has become a way of life for organizations and organizational members. In recent educational reform and restructuring, one focus has been on developing ways to improve staff commitment to schools. Organizations ought to have some understanding of faculty overall levels of job satisfaction and organizational commitment, especially when changes are being contemplated. Each faculty member is

an important part of a school. He or she interacts more often and with greater numbers of students than anyone else in the school organization. The work of faculty makes a difference in whether students are held accountable, helped, encouraged, and heard. Having a quality school depends not only on excellence in facilities, administration, or size of campus, but also on trustworthy relationships and a stable, predictable faculty work force.

In Taiwan's highly competitive environment, the country's higher education institutions need to improve the effectiveness of the school organization by increasing faculty members' level of job satisfaction and organizational commitment. This need can be traced to (a) the huge expansion in the number of higher education institutions, (b) the shrinking of the traditional-age college population, and (c) increased competition among universities for more highly qualified students and faculty. There are 154 higher education institutions in Taiwan, according to the Statistics from the Ministry of Education. This is quite a change from 1950, when Taiwan had only one comprehensive university, three four-year colleges and three junior colleges. Currently, many of Taiwan's institutes of technology are trying to promote themselves to universities, and thus they are initiating financial support programs for faculty to pursue doctoral degrees. However, the turnover rate of faculty with an academic rank above assistant professor is a growing area of concern in Taiwan's vocational educational system. Some of the faculty members are leaving institutes of technology for comprehensive universities after they are promoted to assistant/associate professors. It is obvious that the institutes of technology cannot get a return from their investment on faculty academic rank

promotions when this is occurring. Therefore, understanding the factors that precede organizational commitment can enhance better administrative decisions for the financial support program of faculty to pursue doctoral degrees.

The Purpose of the Study

The purpose of the study was to determine faculty members' level of job satisfaction and organizational commitment and to determine if there were significant differences in faculty members' level of job satisfaction and organizational commitment when grouped by demographic variables (age, gender, marital status, length of employment, academic rank, and the presence or absence of an administrative duty). Furthermore, this study determined the relationship between faculty members' level of job satisfaction and their level of organizational commitment.

Research Questions

1. What are faculty members' levels of job satisfaction in Taiwan's higher education institutions?

2. What are faculty members' levels of organizational commitment in Taiwan's higher education institutions?

3. Is there a significant relationship between faculty members' level of job satisfaction and the following demographic variables: (a) age, (b) gender, (c) marital status, (d) length of employment, (e) academic rank, and (f) administrative duty?

4. Is there a significant relationship between faculty members' level of organizational commitment and the following demographic variables: (a) age,

(b) gender, (c) marital status, (d) length of employment, (e) academic rank, and (f) administrative duty?

5. Can faculty members' level of job satisfaction significantly predict their level of organizational commitment?

Theoretical Perspective

Williams' and Hazer's (1986) causal model of the antecedents of organizational commitment served as a framework for this study. Williams and Hazer indicated that the major focus of the commitment literature has been to identify antecedents of commitment from a variety of categories. These categories have included personal characteristics, work experiences, job characteristics, organizational factors, and role-related factors (Bateman & Strasser, 1984; Mathieu & Zajac, 1990). However, Williams and Hazer observed that the primary mechanism through which these factors have been assumed to influence commitment is an exchange process. That is, "through a process of the evaluation of costs and benefits, individuals' needs and desires are satisfied, and the resulting affective state becomes associated with the organization, which has provided the job and its associated characteristics and environment" (Williams & Hazer, p. 230). They proposed that organizational commitment results from this association. Williams' and Hazer's model shows that satisfaction is a determinant of organizational commitment and that other personal and organizational characteristics influence commitment indirectly through their impact on job satisfaction. The result of Williams' and Hazer's study demonstrated that there was less support for a causal link from commitment to

satisfaction than for a path in the reverse direction. They concluded that job satisfaction should be considered as a causal factor in organizational commitment.

<div align="center">Delimitations of the Study</div>

A complex set of variables may be seen as antecedents, correlates, and consequences of organizational commitment. This study was delimited to job satisfaction as the major antecedent of organizational commitment.

Because of population availability and researcher access support, this study was delimited to faculty members at institutes of technology in the Mid-Taiwan area. There are 14 such institutes in the Mid-Taiwan area, according to the Statistics from the Ministry of Education.

<div align="center">Limitations of the Study</div>

There were three limitations that affect the generalizability of the findings in this study.

First, the results of this study could not be generalized beyond the stated population, faculty members at institutes of technology in the Mid-Taiwan area. Second, the findings of the study were limited to the extent that the subjects were willing to report their true feelings and beliefs. Third, faculty members responded to the survey as a matter of perception. The participant responses might be influenced by their personal definitions, and they might tend to provide socially desired answers.

<center>Definition of Terms</center>

Affective Commitment

Affective commitment describes an employee's emotional attachment to, identification with, and involvement in the organization. The commitment is based on a desire to stay in an organization (Allen & Meyer, 1990).

Continuance Commitment

Becker (1960) saw continuance commitment as cost-based. It is a behavioral view of commitment and describes an attachment to an organization based on employees making certain investments or side-bets in their organizations, for example, tenure toward pensions, promotions, and work relationships. These investments by the individual may not carry over to other institutions, so they reduce the attractiveness of other employment opportunities. Commitment is, therefore, an outcome of inducements or exchanges between an individual and an organization. It is a commitment to the organization based on a need to stay.

Normative Commitment

Normative commitment is "the totality of internalized normative pressures to act in a way which meets organizational goals and interests" (Wiener, 1982, p. 421). Normative commitment is obligation-based in which individuals have a feeling of obligation to continue employment because they should do so (Allen & Meyer, 1990).

Organizational Commitment

Organizational commitment is an attitude that reflects an individual's identification with and attachment to the organization (Moorhead & Griffin, 1995). It is

the degree to which an employee identifies with a particular organization and its goals and wishes to retain membership in the organization (Blau & Boal, 1987).

Institutes of Technology

Institutes of technology are on the vocational education track in Taiwan's higher education system. Institutes of technology offer 2- or 5-year junior college programs, 2- or 4-year bachelor programs, and master programs. Both 2-year junior colleges and 4-year bachelor programs admit senior high school or senior vocational school graduates, while 5-year junior colleges admit junior high school graduates. Students from 2-year junior colleges may be admitted to 2-year bachelor programs (see Appendix A).

Job Satisfaction

Job satisfaction is a person's affective or emotional response to his or her current job conditions (Kalleberg, 1977). Simply put, job satisfaction is the extent to which a person likes his or her job (Spector, 1997).

Two-Factor Theory

In 1959, Herzberg et al. conducted a study examining job-related incidents that were associated with positive and negative feelings. The two-factor theory attempts to explain how job satisfaction is affected by extrinsic and intrinsic job factors. Extrinsic factors include things such as salary, policies, job security, and working conditions, while intrinsic factors refer to things such as responsibility, achievement, advancement, and recognition.

Significance of the Study

Contribution to Research

In searching the relevant literature, several research studies relating to the topic of job satisfaction and organizational commitment were found (e.g., Bateman & Strasser, 1984; Chung, 2001; Mathieu & Zajac, 1990). Although organizational and professional commitment have been studied among diverse professional groups, only a few studies have addressed commitment among teachers (Wiener & Gechman, 1977) and university employees (Allen & Meyer, 1990; Meyer, Allen, & Gellatly, 1990; Welsh & LaVan, 1981). No studies were located that related job satisfaction to faculty members' organizational commitment at Taiwan's higher education institutions. The present study made a contribution to the research literature regarding the antecedents of affective, continuance and normative commitment at higher education institutions.

Contribution to Practice

The results of this study also provided information to Taiwan's higher education leaders regarding faculty members' level of job satisfaction and organizational commitment. The commitment construct's potential in explaining turnover and other organizational behavior may be beneficial to current school leaders in redesigning the workplace. Finally, the results of this study may assist institutions in making major administrative decisions, such as which faculty member to include in the financial support program to pursue a doctoral degree.

Organization of the Study

The dissertation is divided into five chapters.

Chapter II contains a review of selected, relevant literature. This chapter provides a conceptual framework for the study. The material is divided into three major areas of interest, with emphasis on job satisfaction, organizational commitment, and the relationships between job satisfaction and organizational commitment.

Chapter III covers the design of the study, which also includes a description of the population surveyed and the instruments used to gather data.

Chapter IV reports the research findings of the study. A statistical analysis of the data is conducted, and the results are provided in several formats.

Chapter V contains a discussion of the findings drawn from the data analysis. It presents several recommendations based on the results of the study, including recommendations for further study.

Chapter II

Review of Literature

This study was concerned with job satisfaction and organizational commitment.

Both have been topics of discussion dating back to the early 1900s. In general, both refer

to the nature of the relationship between the member and the organizational system. In

the present chapter, the literature on job satisfaction, organizational commitment, factors

influencing job satisfaction and organizational commitment, and the relationship between

job satisfaction and organizational commitment are reviewed.

<div align="center">Job Satisfaction</div>

Definition of Job Satisfaction

Job satisfaction refers to an individual's positive or negative attitude toward his or

her job (Robbins, 2000). Job satisfaction can be defined as "an overall affective

orientation on the part of individuals toward work roles which they are presently

occupying" (Kalleberg, 1977, p. 126). Job satisfaction can also be defined as the extent

to which rewards actually received meet or exceed the perceived equitable level of

rewards (Porter, 1961). Simply put, job satisfaction is the extent to which a person likes

his or her job (Spector, 1997).

There are two approaches regarding the conceptualization and definition of job

satisfaction. The first approach examines a macro or global job satisfaction, in which the

survey instrument is designed to assess the overall feelings about a job. Although job

satisfaction is viewed as a composite phenomenon, the emphasis is on the overall

evaluation of job satisfaction (Jayaratne, 1993). The survey question simply asks "Overall, do you feel satisfied with your job?"

The second approach emphasizes various facets of job satisfaction, in which the survey instrument measures different aspects of the job separately. It is universally accepted that job satisfaction is the extent to which an individual is satisfied with different aspects of the job (Jayaratne, 1993). Overall job satisfaction is a result of combinations of a multifaceted evaluation of the job. Commonly measured facets include satisfaction with pay, promotions, supervision, job security, workload, and working conditions.

Job satisfaction is important for three reasons:

First, the humanitarian perspective is that people deserve to be treated fairly and with respect. Job satisfaction is to some extent a reflection of good treatment.... Second, the utilitarian perspective is that job satisfaction can lead to behavior by employees that affects organizational functioning... Furthermore, job satisfaction can be a reflection of organizational functioning (Spector, 1997, p. 2).

Historical Background

In the early 20th century, managers and researchers did not pay much attention to job satisfaction and its related phenomena. In 1916, Frederick Taylor introduced the principles of scientific management (managers before this development had focused on getting the maximum output from a worker for a minimum input of energy and resources.) His theory, called Taylorism, assumed that all employees could be motivated by financial incentives, but the impact of emotional and psychological factors was ignored.

Two theorists of early human relations provided an important dedication to these factors. Follett was among the first to speak out on the importance of satisfied workers to organizational efficiency. In 1926, Follett proposed that a good leader should give his or her workers the chance for self-fulfillment (Follett, reprinted 1996). Mayo's Hawthorne Experiments (1924-1932) also changed the outlook of researchers and managers toward employee attitudes. Mayo (1987) noted the importance of special attention or recognition to persons in an organization. According to the Hawthorne Experiments, science and technical skills were necessary in production, but for efficiency, considering individuals' needs was also important. An organization should utilize the teamwork method and try to create a sense of belonging among workers. If a worker did not find companionship at the workplace, the worker would feel isolated and ostracized and generally tended to be dissatisfied with the position. He concluded that giving employees motivation to dedicate themselves to tasks could satisfy human beings' needs.

Robert Hoppock (1935) was the first person who published a book related to job satisfaction. According to Hoppock, if the presence of a particular factor leads to job satisfaction, then the absence of this factor causes job dissatisfaction. He found different levels of satisfaction among different occupations. Professional, executive, and managerial employees were in the most satisfied group, while unskilled manual laborers were the least satisfied. This study laid the foundation for future empirical research on job satisfaction.

Many researchers studied worker motivation and human needs in order to examine job satisfaction. Maslow (1943) proposed that human needs and priorities were

related to the fulfillment of a needs hierarchy. According to Maslow's theory, the needs

hierarchy included: physiological, safety, love or belongingness, self-esteem, and self-

actualization needs. McGregor (1960), in his development of Theory X and Theory Y,

sought to establish the relationship between the perception and interaction of

organizational personnel with basic assumptions about human nature. The assumption

under Theory X was that employees inherently dislike work, so external control was the

only way to achieve desired goals. The assumption under Theory Y was that a

committed employee would exercise self-direction and take on responsibility. He

believed in the assumptions of Theory Y and proposed that participation in decision-

making, challenging jobs, and good interpersonal relationships would maximize job

motivation (Robbins, 2000).

In the late 1950s, two important new studies were published concerning job

satisfaction. Argyris (1957) proposed that the needs of mature individuals are often

incongruent with the requirements of the formal organization. In this view, forcing

people to stick to rules and simply take orders from supervisors makes the employees

passive, dependent, and subordinate. Managers should encourage employees to take on

responsibilities. Jobs should be designed to satisfy employees' needs, because it is only

in this way that effective employee performance can be ensured in the long run. The

two-factor theory of Herzberg et al. (1959) proposed that two factors affect job attitudes.

The hygiene factor is extrinsic to the job and includes company policy and administration,

supervision, interpersonal relationships, working conditions, salary, status, and security.

If an organization gets rid of some hygiene factors that cause job dissatisfaction, then

employee dissatisfaction may be avoided. However, it does not mean that the employees would be more positive and satisfied with their jobs. The motivator factor is intrinsic to the job and contributes to job satisfaction. Motivator factors include achievement, recognition for achievement, the work itself, responsibility, and advancement. Building upon the theoretical groundwork of Maslow, Herzberg et al. proposed that a job should provide opportunity for achievement, recognition, responsibility, advancement, and growth opportunity, in order to satisfy the higher-order needs of employees.

Since the 1960s, many efforts to improve job satisfaction have focused on redesigning the work environment to satisfy employees' higher-order needs (Reiner, 1998). In 1975, Hackman and Oldham introduced a new strategy, job enrichment, to improve motivation, satisfaction, and performance. In their thinking a person's job motivation and satisfaction depends on his or her experiencing meaningfulness of the work, responsibilities for outcome of the work, and knowledge of the actual results of the work activities (Hackman, Oldham, Janson, & Purdy, 1987).

Today, interest in the job satisfaction of individuals in numerous occupations has been increasing. Organizations seek to develop an understanding of job satisfaction to resolve recruitment, retention, productivity and performance problems. While there exists a significant interest in raising the level of satisfaction among employees, it is still important to clarify the sources of job satisfaction.

Theories of Job Satisfaction

Human needs and motivation theories. Human needs direct motivation. All

motivation is derived from tension when human needs are unsatisfied. Maslow's (1943)

theory laid the foundation for empirical research on human behaviors and attitudes. The

lowest level in Maslow's hierarchy of needs contains the physiological needs, followed

by safety needs, social needs, ego needs, and self-actualization needs. In general, the

lower levels of needs must be fulfilled before higher-order needs can be satisfied.

However, researchers have not found much support for Maslow's theory. Employees still

seem to value "bread and butter" issues like security and pay much more highly than

noneconomic factors such as how much variety the job provides (Dessler, 1980).

Because it would be difficult to conduct empirical research to support Maslow's needs as

a neat five-step hierarchy, some researchers have attempted to reformulate Maslow's

theory in various ways. Alderfer (as cited in Dessler, 1980) classified needs as either

existence (food and shelter), relatedness (affiliation), or growth needs. McClelland (as

cited in Robbins, 2000) proposed three major motives in the workplace: the need for

achievement, the need for power, and the need for affiliation.

Expectancy theory. In 1964, Vroom's expectancy theory proposed that an

individual's job satisfaction is a function of the discrepancy between what is expected

from the job and what is received (as cited in Robbins, 2000). What is received is viewed

as having either some tangible or intrinsic value (Jayaratne, 1993). There are three

variables in Vroom's discrepancies: attractiveness of the potential outcomes, the belief

that effort will lead to performance, and the expectation that good performance will lead

to the attainment of a desired outcome (as cited in Robbins, 2000). Regarding the measurement of job satisfaction, one has to look at what people want, what people feel they should receive, and what people expect to receive (Lawler, 1973). Therefore, an individual's overall job satisfaction would be determined by summing the discrepancies between "what an individual receives and wants (values), receives and needs, and receives and expects" (Jayaratne, 1993, p. 113).

Two-factor theory. In their 1959 study of "the motivation to work," Herzberg et al. explored job satisfaction and human needs. One set of needs can be determined as stemming from human nature: the built-in drive to avoid pain from the environment and all the learned drives to adapt to the environment to fulfill basic biological needs (Herzberg, 1964). The stimuli for inducing dissatisfaction-avoidance behavior can be found in the job environment. The extrinsic factors or hygiene factors related to dissatisfaction avoidance include: salary, status, security, interpersonal relationships, supervision, working conditions, and policy and administration. The other set of needs is related to the individual's ability to achieve and through achievement to experience psychological growth. The stimuli for growth needs come out of the job content in the work place. These intrinsic factors or motivator factors related to growth include achievement, recognition for achievement, the work itself, responsibility, and growth or advancement.

These theories are often utilized in the studies of understanding employees' job satisfaction and predicting employees' job performance. Job satisfaction is a subjective response of individuals toward work. Job satisfaction is also an individual's perception

in which each employee assesses his or her work experience in the context of personal

background and environmental factors. Because job satisfaction is a subjective and

personal attribute, it is not easy to measure.

Environmental Factors Affecting Job Satisfaction

Building upon the theoretical groundwork of Maslow (1943) and Herzberg et al.

(1959), many researchers tried to identify the attributes of the work environment related

to job satisfaction that met the higher-order needs of self-esteem and self-actualization.

Turner and Lawrence (1965) identified six key attributes of a job that contribute to the

satisfaction of higher-order needs. These attributes are variety, autonomy, required

interaction, optional interaction, knowledge and skill required, and responsibility.

Hackman and Lawler (1971) proposed the dimensions of variety, autonomy, task identity,

feedback, dealing with others, and friendship opportunities.

In the development of the Job Diagnostic Survey, Hackman and Oldham (1975)

distinguished five core dimensions of the work environment that are critical to the

fulfillment of higher-order needs. The components linked to the psychological state of

experienced meaningfulness of work include: skill variety, task identity, task

significance, autonomy, and feedback. Skill variety refers to "the degree to which a job

required a variety of different activities in carrying out the work, which involve the use of

a number of different skills and talents of the employee" and task identity is "the degree

to which the job requires completion of a whole and identifiable piece of work--that is,

doing a job from beginning to end with a visible outcome" (Hackman & Oldham, p. 161).

Task significance is "the degree to which the job has a substantial impact on the lives or

work of other people--whether in the immediate organization or in the external environment" (Hackman & Oldham, p. 161). Autonomy is linked to the psychological state of experiencing responsibility for outcomes of the work. Feedback from the job itself and from the supervisors or coworkers is linked to this psychological state. Other variables related to job satisfaction are role stress (role ambiguity and role conflict), interpersonal relationships, and the working conditions.

Demographic Factors Affecting Job Satisfaction

In attempting to identify the factors that have an impact on employee job satisfaction, considerable attention has been devoted to the characteristics of the individual (Reiner, 1998). Demographic variables often examined include age, gender, marital status, and length of employment.

Age. Many studies of age-related effects on employee job satisfaction have been reported (Rhodes, 1983; Warr, 1990, 1992). It is generally believed that older employees tend to report higher satisfaction than younger ones (e.g., Doering, Rhodes, & Schuster, 1983; Warr, 1992). Some arguments have been presented to account for this tendency for older employees to report greater job satisfaction than younger ones. First, prestige and confidence are likely to increase with age, so older employees are likely to report higher levels of job satisfaction (Bedeian, Ferris, & Kacmar, 1992). Second, older workers might lower their expectations of the job through their experiences, compared to younger people who might have higher expectations and standards. As the perceived gap between actual and ideal work conditions becomes smaller, it is likely to generate more positive work attitudes (Oswald & Warr, 1996).

Some studies have found that job satisfaction increases linearly with age (Boker, 1994; Quinn & Staines, 1979; Weaver, 1980), while others report that the relationship is U-shaped, declining in the early years of employment and then increasing steadily up to retirement (Oswald & Warr, 1996; Warr, 1992). Two processes of expectation can explain the U-shaped relationship between job satisfaction and age. First, young employees may feel satisfied with their job, because the unemployment rate is high, and they feel pleased to have a prestigious job compared to their peers. Second, as employees gain more experience, they also gain information about the nature of their work to compare against their prior expectations (Oswald & Warr). It would appear from the literature that age may be a predictor of job satisfaction.

Gender. The findings of the research on the relationship between gender and job satisfaction in various occupations have been contradictory. No conclusive evidence with regard to the levels of satisfaction among men and women has been reported from several studies (Brief & Oliver, 1976; Brief, Rose, & Aldag, 1977; D'Arcy, Syrotuik, & Siddique, 1984; Goh, Koh, & Low, 1991; Shapiro & Stern, 1975). However, research on psychologists found that female employees tend to be less satisfied than their male colleagues regarding salary, promotion, opportunities, and overall respect for them as professionals (Black & Holden, 1998). Research on both public- and private-sector employees of different occupations and work positions indicated that females are significantly less satisfied than males in relation to pay and satisfaction with the physical environment (Reyhan, 1998). Research on teachers found that female teachers are significantly more satisfied with their professional role as a teacher than their male

counterparts (Ma & MacMillan, 1999). One study found that the satisfaction of men is linked to the level of supervision, autonomy, and position, while the satisfaction of women is linked to the level of complexity, cleanliness, and income (Miller, 1980).

In summary, it appears that gender alone is not a direct determinant of job satisfaction. The differences in satisfaction among employees seem to depend on different occupations and job characteristics.

Marital status. A large number of studies have found that married workers are more satisfied than single workers (e.g., Bersoff & Crosby, 1984; Tait, Padgett, & Baldwin, 1989). However, some studies have found no significant differences in job satisfaction between married and unmarried individuals (e.g., Lottinville & Scherman, 1988). Similar to gender, the correlation between marital status and job satisfaction cannot be generally applied across different occupations or the same occupation in different localities. Marital status alone does not appear to be a direct determinant of job satisfaction. Any differences discovered seem to be situational and are linked to other environmental and societal factors.

Length of employment. In general, the effects of length of employment would be expected to be highly correlated with the effects of age. A positive linear relationship has been found between tenure and job satisfaction (Hunt & Saul, 1975). Similar to the U-shaped curve sometimes reported in studies of age and job satisfaction, one study found that employees with little experience have high levels of satisfaction, then this level drops gradually until 16 years of service. After that point, the level of satisfaction rises again gradually (Burke, 1989). The explanation is that the new employees may find the job

challenging and have the motivation to work hard to seek promotions. As the experience

increases, they may begin to stabilize in the organization and sense that there is little or

no challenge or promotion opportunities left in the job. They may become skeptical

about finding fulfillment in their careers. Their levels of job satisfaction may be reduced

until they reach the stage of preparing for retirement.

Academic rank. Faculty attitudes toward their job change as they "progress

through the faculty ranks and as their careers place different demands on them" (Baldwin,

1990, p. 20). A change in rank brings different expectations, a change in responsibility,

academic reputation, and salary. Tack and Patitu (1992) found academic rank to be a

powerful variable in the satisfaction of faculty, with full professors expressing more job

satisfaction than assistant or associate professors. Promotions in rank alter faculty's

focus, concerns, and subsequent goals, and thus, influence their affective attitudes toward

their jobs.

Research on Job Satisfaction

Job satisfaction research can be divided into three categories (Reiner, 1998). In

the first category, job satisfaction can be examined as a dependent variable where the

goal is to identify the factors that influence job satisfaction. The factors reviewed include

personal characteristics of the individual, perception of the work environment, and

attributes of the work itself (Iiacqua & Schumacher, 1995).

The second category of job satisfaction research considers job satisfaction as an

intermediate variable relating characteristics of the work environment and employee

turnover (Cammann, Fichman, Jenkins, & Klesh, 1983). Job satisfaction can also be

considered an intermediate variable in examining the relationship between characteristics of the work environment and individuals' organizational commitment. For example, in reviewing the influence of personal and organizational characteristics on organizational commitment, the results show that all of the proposed determinants might have effects on organizational commitment indirectly via job satisfaction (Williams & Hazer, 1986).

The third category of job satisfaction research examines job satisfaction as an independent variable to determine its impact on different dependent variables. Researchers indicate that job satisfaction is associated with organizational outcomes such as employee turnover, work stress, absenteeism, and job performance. Highly satisfied faculty will generally be innovative and motivated to establish and maintain an environment conducive to learning (Iiacqua & Schumacher, 1995).

Traditionally, a single scale has been used for both job satisfaction and dissatisfaction. The high end of the scale measures complete satisfaction, while the low end assesses complete dissatisfaction. However, the prevailing view of using a single scale to measure both job satisfaction and dissatisfaction has been challenged. Truell, Price, and Joyner (1998) have proposed that by exploring different facets of job satisfaction, areas of low satisfaction can be identified and thus can aid in improving job satisfaction.

A number of researchers have expressed the importance of monitoring faculty's job satisfaction (Iiacqua & Schumacher, 1995; McBride, Munday, & Tunnell, 1992; Milosheff, 1990; Truell et al., 1998). Hill (1987) explored five facets of job satisfaction among community college faculty: work, supervision, co-workers, pay, and promotion.

The level of job satisfaction with work, promotion, and co-workers are significant in explaining an individual's commitment to a community college (Hill, 1987). Much of the research on job satisfaction has applied the two-factor theory (1959) of Herzberg et al. (e.g., Iiacqua & Schumacher; Truell et al.). Herzberg et al. proposed that job satisfaction is determined by intrinsic factors. In the educational setting, the intrinsic factors involve a direct link between faculty and their day-to-day routine. These factors include academic freedom, the job's challenge of one's skills and abilities, perceived meaningfulness of the work itself, academic ability of students, financial support for research, one's ability to have a positive impact on others, positive feedback and recognition, and promotion opportunity (Iiacqua & Schumacher). The extrinsic factors comprise the background of one's work or the environmental setting. Extrinsic factors affect the day-to-day job less but are always in the background. They include: administrative policies, supervision, salary, fringe benefits, interpersonal relationships, working conditions, job status, and job security (Herzberg, 1964).

The literature that follows will examine the past research into the impact of job satisfaction upon organizational commitment.

<div align="center">Organizational Commitment</div>

Organizational commitment has been a popular research topic for decades (Randall, Fedor, & Longenecker, 1990). Organizational commitment is an important part of an employee's psychological state, because employees who experience high organizational commitment demonstrate behaviors favorable to organizational effectiveness. Organizational commitment among employees is typically assumed to

reduce withdrawal behaviors such as turnover, tardiness, and absenteeism (Mowday et al., 1979). Moreover, committed employees may be more likely to engage in extra-role behaviors, such as creativeness and innovativeness, which can enhance organizational performance and maintain organizational competitiveness (Katz & Kahn, 1978).

There is also growing recognition that the success of organizational change efforts may be dependent upon members' attitudes as change has become a way of life for organizations and organizational members. An individual who is committed to the organization's goals and objectives is more likely to (a) identify with and accept organizational change efforts, (b) take actions on his or her own initiative which will support the change effort, (c) be creative in his or her responses to change, and (d) act in ways that improve the organization's flexibility to respond to environmental changes (Becker, 1992; Becker, Billings, Eveleth, & Gilbert, 1996; Meyer & Allen, 1997). Research by Becker et al. and Meyer and Allen has produced a compelling rationale for using commitment (i.e., loyalty) as a criterion variable in assessing the impact of organizational change on employee-organization relations. In particular, an individual's willingness to comply with the organization's rules, policies, and reward structures, his or her attachment to being socially affiliated with an organization and its members, and his/her institutionalization of values inherent in a change have been argued to influence the employee's feelings toward an organization. Organizational commitment also influences the extent to which an individual will both perform jobs and experience swings in stress, cynicism, forms of workplace withdrawal (e.g., absenteeism and lateness), and ultimately, employee turnover (Becker et al.).

Definition of Organizational Commitment

The concept of organizational commitment refers to the nature of the linking of a member to the organization. Definitions of commitment can vary a great deal. Organizational commitment can be categorized into attitudinal and behavioral approaches (Mowday, Porter, & Steers, 1982; Reichers, 1985).

Attitudinal commitment. Attitudinal commitment reflects the individual's mindset process in determining his or her relationship with the organization. Through the mindset process, an individual develops one's willingness to work with the organization and one's level of affective attachment to an organization. Mowday et al. (1982) defined attitudinal organizational commitment as the individual's identification with organizational goals and willingness to work towards the goals. One of the most popular measures of attitudinal commitment is the Organizational Commitment Questionnaire (OCQ) developed by Porter et al. (1974). The OCQ is designed to assess an individual's desire to maintain organizational membership. In the attitudinal commitment research, most studies focus on identification of the antecedent conditions that contribute to the development of commitment and on behavioral consequences of this commitment (Mathieu & Zajac, 1990; Williams & Hazer, 1986).

Behavioral commitment. The behavioral approach involves the process of an individual becoming bound by his or her actions in the organization. Through these actions, an individual develops the belief that he or she must sustain the activities and be involved in the organization (Salancik, 1977). Behavioral commitment is the measurement of an individual's intention to stay in an organization (Mowday et al.,

1982). Becker's (1960) side-bet theory about behavioral commitment indicates that individuals attach themselves to organizations through investments, such as time and efforts that make it too costly to leave. Behavioral commitment is the process by which individuals become locked into certain organizations and how they deal with the situation through behavioral acts (Mowday et al.). In research on behavioral commitment, the studies focus on identification of conditions under which a behavior that, once exhibited, tends to be repeated, as well as on the effects of such behavior on attitudinal change (O'Reilly & Caldwell, 1980).

Attitudinal and behavioral commitments are not independent. Many researchers argue that there is a cyclical relationship between these two types of commitment. That is, commitment attitudes lead to commitment behaviors, which in turn reinforce commitment attitudes.

Three Themes of Attitudinal Commitment

Organizational commitment also has been portrayed in at least three conceptually different manners by viewing commitment as a psychological state. These views are generally referred to as (a) the exchange approach, (b) the psychological approach, which is referred to as individual/organizational goal congruence, and (c) the normative approach, which is a function of morality and norms (Meyer & Allen, 1997; Reichers, 1985).

Exchange approach. The exchange approach sees commitment as the outcome of transactions of inducement and contribution between the organization and the organizational member. Commitment becomes a function of the cognitive evaluation of

costs and benefits in maintaining organizational membership. The emphasis is on the instrumentality of membership as the main determinant of the members' gaining advantage or disadvantage in this exchange process. Expected returns on the individual's investment of time and effort in the organization, in addition to other rewards such as recognition, help create a bond between the individual and the organization. Costs that are incurred or opportunities that are given up may reduce an individual's interest in maintaining organizational membership. From this approach, it is assumed that the greater the value of the exchange from the member's perspective, the greater his or her commitment to the organization will be (Hrebiniak & Alutto, 1972).

Becker's (1960) side-bet theory defines commitment as the tendency to engage in a consistent line of activity because of the perceived costs of doing otherwise. The perceived costs associated with leaving the organization would include such things as loss of attractive benefits and seniority, disruption of personal relationships, effort needed to find a new job, etc. The term side-bet has been used to refer to anything of value in which the individual has invested (e.g. time, effort, money) that would be lost or deemed worthless at some perceived cost to the individual, if he or she were to leave the organization (Meyer & Allen, 1984). Side-bets also involve the value of continued organizational membership for some unrelated aspect of their lives. For example, people may be unwilling to quit an organization for fear they will be perceived as "job hoppers" (Reichers, 1985). In this case, individuals make side-bets by staking their reputation for stability on the decision to remain with a particular organization. Generally, the longer an employee stays with an organization, the greater the accumulating side-bets.

Commitment results include tenure, status, ranking, rewards, benefits, and organization-specific skills. The exchange theory of commitment is often used to explain significant relationships between organizational commitment and personal variables, such as age and tenure with an organization. The exchange approach itself does not make predictions about how well a committed person will perform in a particular organization.

According to Becker (1960) and others, organizations make side-bets for employees through practices that lock them into continued organizational membership. Such practices could only be considered a side-bet if the individual values them and is satisfied with them.

Psychological approach. This approach essentially sees commitment as occurring when individuals identify with and extend effort toward organizational goals and values. It concerns the processes of identification and the dedication of one's own energy to the organization's goals and values (Reichers, 1985). Organizational commitment is defined as "(1) a strong belief in and acceptance of the organization's goals and values; (2) a willingness to exert considerable effort on behalf of the organization; and (3) a strong desire to maintain membership in the organization" (Mowday et al., 1979, p. 226).

"Willingness to exert effort" and "a desire to maintain membership" indicate behavioral intentions by committed individuals. This view has been referred to as affective commitment by Allen and Meyer (1990). This view of organizational commitment interprets loyalty not only as simply maintaining membership in an organization but also as being actively involved in organizational activities or jobs

(Steers, 1977). This view has been used by researchers much more than the other two approaches.

Normative approach. The third view of organizational commitment focuses on an individual's internalized normative pressures to act in a way that meets organizational goals and interests (Wiener, 1982). Normative commitment refers to an individual's sense of obligation toward the organization. This conceptualization is characterized by the exertion of effort out of feelings of loyalty. Good performance is viewed as the right and moral thing to do (Wiener, 1982).

Allen's and Meyer's Model of Organizational Commitment

Although several conceptualizations of commitment have appeared in the literature, each reflects one of three general themes. Allen and Meyer (1990) have developed a three-component conceptualization of organizational commitment that has been labeled affective, continuance, and normative commitment.

Affective commitment. Affective commitment refers to an employee's emotional attachment to, identification with, and involvement in an organization. Employees with strong affective commitment expend their energy on behalf of the organization, because they want to do so.

Continuance commitment. Continuance commitment is viewed as a tendency to engage in organizational activities based on the individual's perceived costs or profit associated with continued participation or losses associated with leaving. Employees with strong continuance commitment expend their energy on behalf of the organization because they feel it is in their interest to do so.

Normative commitment. Normative commitment refers to the belief that one is obligated to the organization after joining. Employees with strong normative commitment expend their energy on behalf of the organization, because they feel they should do so.

Affective, continuance, and normative commitment are not considered to be separate types of commitment distributed among employees. Rather, they are conceptually distinct and independent components of organizational commitment. An employee's relationship with an organization might reflect varying degrees of all three (Meyer & Allen, 1997). For example, an employee might feel both an emotional attachment to the organization and a sense of obligation to stay, but also might recognize that leaving would be very difficult from an economic standpoint. Another employee might experience a considerable degree of desire and need to remain with the current organization. Organizational commitment develops slowly and gradually stabilizes over time as the employee gains experience with the organization. It is assumed that the development of each commitment component is relatively independent of the other two. Each component may develop as the result of quite different antecedents, and the development of one component does not necessarily affect the level of another component.

Although affective, continuance, and normative commitment reflect links between employees and the organization, the nature of the links may be different (Meyer, Paunonen, Gellatly, Goffin, & Jackson, 1989). Those who have strong affective commitment may be willing to exert considerable effort on behalf of the organization,

while those who have been compelled to remain in the organization may do little more than the minimum required to retain their employment. Thus, employees with both affective and continuance commitment components may be less likely to be absent or quit, but the level of their service morale and attitudes may be quite different.

Factors Affecting Organizational Commitment

The major focus of the commitment literature has been to identify antecedents of commitment from a variety of categories. These categories have included personal characteristics, work experiences, job characteristics, organizational factors, and role-related factors (Bateman & Strasser, 1984; Mathieu & Zajac, 1990).

Personal Characteristics

Several personal characteristics have been shown to contribute to organizational commitment. A partial listing includes age, tenure, gender, and marital status.

Age and tenure. Two somewhat related variables, age and tenure, have been discussed together by many researchers. Most investigations have demonstrated support for a positive correlation between employees' age and tenure and their organizational commitment (Bedeian, Pizzolatto, Long, & Griffeth, 1991; Meyer & Allen, 1984; Reyes, 1989). In research done by Reyes dealing with school administrators, age and total years experience were positively related to organizational commitment. The more years of experience that an administrator had, the more committed he or she was to the school, and the older the administrator, the more committed he or she was.

Several interpretations of the age/tenure phenomenon have been proposed. One explanation focuses on the notion of side-bets, as mentioned previously. Some costs

associated with leaving will increase over time (for example, seniority privileges, personal relationships). As the alternative employment opportunities decrease, the individuals might find the current employer becoming increasingly attractive. Typically, the older a person becomes, the less likely he or she is to give up the benefits and idiosyncratic credits associated with seniority, tenure, or status among his or her peers in order to enter the job market and compete with younger, and perhaps better trained, job candidates. The second interpretation is based on age conceptualizations of career stage, in which "age, or more generally work life experiences, shape occupational aspirations and concerns" (Bedeian et al., 1991, p. 155). Younger employees are not likely to have fully established their worth in the organization, so they generally do not hold positions of authority. It follows, then, that younger employees are generally more likely to be mobile and to have a lower psychological investment in the organization. Middle-aged employees generally engage in behaviors that encourage stability. Lastly, older employees more commonly engage in maintenance behaviors. A third interpretation is that organizational commitment increases with age and tenure due to a gain in self-confidence and job-related self-efficacy.

Age and tenure are found to be positively correlated with continuance commitment and affective commitment. Ritzer and Trice (1969) reasoned that side-bets should accumulate over time and that age and tenure should be the best indicator of continuance commitment. Other studies suggest that employees who are older and who have been employed longer with a particular organization have a stronger affective commitment to it (Porter et al., 1974; Meyer & Allen, 1984). However, no study has

been found to support the correlation between age and tenure and normative commitment.

Gender. There appears to be no consistent relationship between gender and organizational commitment, although some researchers have proposed that males are more committed than females (DeCotiis & Summers, 1987; Reyes, 1989). However, Mathieu and Zajac (1990) reported that women tend to be more committed than men. Women may become more committed to an organization because they may have had to overcome more barriers than men to gain membership. This tendency is especially prominent when the female employee is married (Mathieu & Zajac). The costs associated with job mobility may be perceived as higher for a married woman, because leaving employment for another organization may mean leaving the community in which she lives (Steinhaus, 1992).

Marital status. It has been demonstrated that married employees are more likely to be committed to the organization than are single employees (Hrebeniak & Alutto, 1972). It seems reasonable to predict that marital status may be more related to continuance commitment, because married employees are likely to have greater financial burdens. Married employees apparently perceive greater losses associated with job mobility; whereas, single employees see less risk in seeking employment alternatives. For dual career couples, as they attempt to maintain stability in their family life, they may not be able to afford the risk of job mobility.

Academic rank and administrative duty. No literature has been found to support the influence of these two variables on organizational commitment.

Work Experiences

Relationship with co-workers. The extent to which coworkers are perceived as possessing positive attitudes toward the organization has been shown to enhance individual commitment. Even if individuals initially hold values or beliefs different from those of the group as a whole, they behave according to group expectations and eventually adopt group attitudes as their own (Miller & Wagner, 1971). Thus employees may be socialized to act in a committed manner, begin to believe that they are, and eventually adopt the attitude of being committed to the organization.

Relationship with leader. A second interaction involves that of a group leader's behavior toward subordinates. Supervisory feedback is an important component in clarifying an employee's achievement for his or her work behaviors. A meta-analysis of antecedents of organizational commitment has reported moderately positive correlations for both leader initiating structure and consideration behaviors (Mathieu & Zajac, 1990).

Feedback. The knowledge of results is viewed as most closely linked to intrinsic motivation and positive work attitudes among specific populations. Monitoring and feedback give employees the benefit of knowing their outcomes. Feedback also gives employees an awareness that their job performance is known by others. As a consequence, employees feel more responsible for their actions, which, in turn, may influence their organizational commitment (Salancik, 1977).

Job Characteristics

Role conflict. Role conflict can be defined as the degree to which role expectations are incompatible or self-contradictory in some manner (Locke, 1976). A

person feels that meeting one expectation will prevent him from meeting another and as a result may experience worry and tension. This incongruence may have a negative impact on the employee and in turn on organizational commitment. The definition of role conflict is varied. Sarbin (1968) identified role conflict as two types – interrole conflict and intrarole conflict. Interrole conflict is defined as conflict due to simultaneous occupancy of two or more positions having incompatible role expectations. Intrarole conflict may result from contradictory expectations held by two or more groups of significant others regarding the same role or it may result from a single group holding simultaneously contradictory expectations of one role.

Due to faculty's increased number of roles, role conflict may be a particularly important issue for faculty who hold an administrative duty. Role conflict also may be a serious problem for female faculty members who are married and have children. Role conflict has been reported to be significantly and negatively related to organizational commitment (Mathieu & Zajac, 1990).

Job autonomy. Job autonomy, or the extent to which employees believe they can exercise personal judgment in performing a job, fosters a sense of responsibility and a concurrent feeling of commitment toward accomplishing organizational goals. Mathieu and Zajac found a small positive correlation between autonomy and organizational commitment. Other researchers also have supported the idea that employees exercising more self-determination in performing their roles have more favorable attitudes toward their jobs, more responsibility toward meeting organizational objectives, and thus a greater degree of commitment (Hackman & Lawler, 1971; Hackman & Oldham, 1975).

Relationship between Job Satisfaction and Organizational Commitment

Although it is not clear whether enhanced job satisfaction leads to commitment, or whether increased commitment leads to greater job satisfaction, research indicates that organizational commitment and job satisfaction are associated with organizational outcomes such as turnover intentions, turnover, absenteeism, and job performance (Mathieu & Zajac, 1990; Testa, 2001). Job satisfaction could have a transitory effect as an affective reaction to a certain job. However, job dissatisfaction is not always viewed as a sufficient condition to terminate employment. Job satisfaction may be viewed as a determinant of organizational commitment when considering a job outcome. Then, turnover could be conceptualized as a result of lower levels of commitment. Although contradiction exists as to the causal sequence between organizational commitment and job satisfaction, it is clear that organizational commitment and job satisfaction are associated variables that affect organizational outcomes.

Many investigators have determined that job satisfaction causally precedes commitment (DeCotiis & Summers, 1987; Mathieu & Hamel, 1989; Williams & Hazer, 1986). Porter et al. (1974) suggested that job satisfaction represents a rather unstable and immediate affective reaction to the work environment, as compared to organizational commitment, which they consider to be a rather long-term, slower developing attitude toward the organization. Thus, there does appear to be some research suggesting that job satisfaction leads to organizational commitment.

There have been a few studies relevant to establishing the satisfaction-commitment relationship. A model developed by Steers (1977) described the antecedents

and outcomes of commitment. According to this model, there are three main categories of variables that influence commitment. Personal characteristics included variables such as a need for achievement, age, and education. Work experiences, the second category of influences, described socializing forces that have an impact on attachments formed within the organization. This category included experiences related to group attitudes toward the organization and perceptions of personal investment in and worth to the organization. The third category, job characteristics, included job challenges, opportunities for social interaction, and feedback. Although Steers did not specifically include job satisfaction as an antecedent, he did propose that it would probably influence commitment more than would job characteristics.

Jiang (1996) studied the relationship between job satisfaction and organizational commitment of government accountants in Taiwan. He found that among the demographic variables, gender and age were significantly related to organizational commitment. He has also reported a significant positive relationship between job satisfaction and organizational commitment. Similar results were also reported in Chung's (2001) research on the relationship between job satisfaction and organizational commitment among junior high school counselors. More specifically, the results of her study indicate that normative commitment has the highest positive correlation with job satisfaction followed by continuance commitment.

DeCotiis and Summers (1987) investigated a multivariate predictive model of organizational commitment. They grouped several correlates of organizational commitment together and labeled them personal characteristics and situational attributes

including organizationally-mediated variables such as the organizational structure, organizational climate, and human resource processes. Support for the satisfaction-commitment relationship was reported in their study. The results showed that each of the facets of job satisfaction was significantly and strongly associated with commitment. Job satisfaction and commitment were linked with voluntary turnover. Moreover, commitment was found to be predictive of individual motivation and objective job performance.

Williams and Hazer (1986) developed a turnover model to describe the antecedents and consequences of satisfaction and commitment. They proposed that personal and work characteristics have no direct effect on turnover intentions. Their impact was only through their effect on satisfaction and commitment. They indicated that the primary mechanism through which these factors have been assumed to influence commitment was an exchange process. That is, "through a process of the evaluation of costs and benefits, individuals' needs and desires are satisfied, and the resulting affective state becomes associated with the organization, which has provided the job and its associated characteristics and environment" (Williams & Hazer, p. 230). They propose that organizational commitment resulted from this association. Williams' and Hazer's model argued that satisfaction was a determinant of organizational commitment and that other personal and organizational characteristics influenced commitment indirectly through their impact on job satisfaction. The result of Williams' and Hazer's study showed that there was less support for a causal link from commitment to satisfaction than

for a path in the reverse direction. From this perspective, job satisfaction may be considered a causal factor contributing to organizational commitment.

Summary

This chapter has reviewed the literature of three major issues: job satisfaction, organizational commitment, and the relationship between job satisfaction and organizational commitment.

Literature discussed in this chapter reveals that job satisfaction is an emotional state resulting from the measurement of difference between what one thinks he or she should receive and what one feels he or she actually receives in a given job. Job satisfaction is an employee's perception of his or her work experience in the context of personal background and environmental factors. Because job satisfaction is a subjective and personal attribute, it is not easy to measure.

There are two major approaches that measure job satisfaction. A method to assess the overall attitudes of an employee toward work is called global satisfaction. However, it seems that the measurement of various facets of job satisfaction is more appropriate for measuring the overall job satisfaction and measuring the relationship of job satisfaction and organizational commitment.

The main theories discussed in this chapter included motivation and human needs theory, expectancy theory, and two-factor theory. From the perspectives of different theoretical approaches, researchers are able to identify different key attributes of a job that may contribute to the satisfaction of human needs. Many of the attributes of the work environment that are thought to be related to job satisfaction are those which meet

the higher-order needs of self-esteem and self-actualization. The core dimensions of the work environment that are critical to the fulfillment of higher-order needs include skill variety, task identity, task significance, autonomy, feedback from the job itself, achievement, recognition, advancement, and responsibility. The studies of demographic variables on job satisfaction were also reviewed. These variables included age, gender, marital status, length of employment and academic rank. However, it seems that in studies using demographics alone to predict job satisfaction, the results are inconsistent and inconclusive.

Literature related to organizational commitment was reviewed in the second section. Organizational commitment is a critical element for work behavior and performance, because employees who experience strong organizational commitment identify with organizational goals, accept and support organizational decisions, and actively engage in organizational activities. The theoretical approaches to examining organizational commitment include attitudinal and behavioral factors. Attitudinal commitment points to the exchange approach, psychological approach, and normative or moral approach. Allen and Meyer (1990) conducted a three-component model of organizational commitment using the attitudinal approach and defined the three types of organizational commitment as affective, normative, and continuance commitment. Since 1990, Allen's and Meyer's model of organizational commitment has become the most commonly studied.

The correlation of organizational commitment and antecedent variables was discussed. The antecedent variables were categorized as personal characteristics, work

experiences, job characteristics, and role-related factors. Some research found that the influence of several variables on commitment was mediated by employees' job satisfaction. Therefore, the job satisfaction survey used in this study that assesses faculty level of satisfaction includes variables of the work experience, job characteristics, role-related factors, and interpersonal process factors. These factors will be included in the job satisfaction survey in order to examine if job satisfaction can significantly predict organizational commitment.

This research examines the levels of job satisfaction and organizational commitment among faculty at Taiwan's institutes of technology. Because faculty retention is a growing area of concern in Taiwan's vocational education system, this research will provide important information on the relative importance of employee demographic variables on job satisfaction and organizational commitment and the correlation between job satisfaction and organizational commitment.

Chapter III

Methodology

The purpose of this study was to explore faculty members' job satisfaction and

organizational commitment at Taiwan's higher education institutions. This chapter

describes the research design, sample, instrumentation, variables, and methods of data

analysis that were used to conduct this study.

Research Design

This study was a quantitative study using a cross-sectional survey design.

Sample Selection

There are a total of 154 higher education institutions including 14 institutes of

technology (4 public and 10 private) located in the Mid-Taiwan area (the Ministry of

Education in Taiwan, n.d.). Due to the research budget and time constraints, the sample

was selected using a stratified cluster random sampling technique. Five schools were

randomly selected from the 14 institutes of technology in the Mid-Taiwan area. The lists

of full-time faculty were obtained from the Office of Personnel in each of the five

institutions. One hundred faculty members from each of the five institutions were

selected to participate in this study, using a table of random numbers. Thus, a total of

500 surveys were sent to the randomly selected faculty at each of the institutions.

Data Collection

After receiving approval to conduct the study from the IRB at the University of

Nebraska (IRB# 068-03-EX), the 500 surveys which included the instrument and cover

letter were mailed to the sample in March of 2003 (see Appendices B & C). A stamped

envelope was also attached with the survey to allow the participants to conveniently

return the survey to the school address where the researcher was employed. Each survey

included a four-digit code that identified returned surveys to ensure that (a) each

participant responded with only one survey and (b) a follow-up card was sent only to the

non-respondents. The purpose of using the code was explained to the participants. The

code was destroyed upon receipt of the survey. A follow-up postcard was mailed to non-

respondents reminding them to return the survey in April of 2003. The first mailing

generated 326 usable surveys, a 65.2% return rate. The last mailing generated 28 more

usable surveys for a grand total of 354, which provided an overall return rate of 70.8%.

<u>Profile Characteristics</u>

A total of 354 subjects completed the survey. A description of the participants'

age, gender, marital status, length of employment, academic rank, and administrative

duty appears in Table 1. There were more teachers in the 31 to 40 age group (179 or

50.6%) than in any other age group, 6.2% were younger, 43.2% were older. The majority

(58.5%) of the respondents were males. A total of 289 of the respondents or 81.6% were

married, while 65 or 18.4 % of the respondents were single. The majority (58.8%) of the

respondents worked in their current institution for 1-10 years. The majority (70.9%) of

the respondents were instructors. Over half (66.1%) of the respondents had no official

administrative duty.

<u>Instrumentation</u>

The questionnaire was divided into three parts. In addition to the demographic

form, two instruments were included: A Faculty Job Satisfaction Survey developed by

Table 1

Professional Characteristics of Faculty Members at Taiwan's Institutes of Technology

		Frequency	Percent of Total
Age			
	30 or Below	22	6.2%
	31-40	179	50.6%
	41-50	131	37.0%
	51-60	18	5.1%
	Above 60	4	1.1%
Gender			
	Male	207	58.5%
	Female	147	41.5%
Marital Status			
	Single	65	18.4%
	Married	289	81.6%
Length of Employment			
	Below 10	208	58.8%
	11-20	122	34.5%
	21-30	19	5.4%
	31-40	5	1.4%
Academic Rank			
	Full Professor	4	1.1%
	Associate Professor	51	14.4%
	Assistant Professor	45	12.7%
	Instructor	251	70.9%
	Teaching Assistant	3	0.8%

(Table 1 continued)

	Frequency	Percent of Total
Administrative Duty		
Top Administrator	24	6.8%
Secondary Administrator	24	6.8%
Administrative Assistant	72	20.3%
No Administrative Duty	234	66.1%

the researcher and the Organizational Commitment Scales of Allen & Meyer (1990). A description of the questionnaire follows:

Demographics

The following demographic variables were included in this study: age, gender, marital status, length of employment, academic rank, and administrative duty (see Appendix D).

Faculty Job Satisfaction Survey

It is universally accepted that job satisfaction is the extent to which an individual is satisfied with different aspects of the job (Jayaratne, 1993). By exploring different facets of job satisfaction, areas of low satisfaction can be identified and thus can aid in improving job satisfaction (Truell et al., 1998). The job satisfaction instrument was developed from the research. This part of the questionnaire consists of 22 questions, answered on a 5-point Likert scale (see Appendix E). Each of the item indicators refers to a variable in the work environment, except question 22 which assesses the overall satisfaction with the job. These items also attempt to measure attitudes in the two areas that comprise the job satisfaction definition of the two-factor theory of Herzberg et al. (1959). The respondents indicated their levels of agreement with each variable in their current job. Five response alternatives were provided for each item: strongly disagree, disagree, neither agree nor disagree, agree, strongly agree. A list of the survey single-item indicators follows.

Intrinsic factors.

Question #9. Autonomy,

Question #11. Recognition,

Question #13. Advancement,

Question #14. Challenge,

Question #15. Ability utilization-teaching,

Question #16. Ability utilization-research,

Question #19. Achievement-student performance,

Question #20. Task significance, and

Question #21. Pride.

Extrinsic factors.

Question #1. Compensation,

Question #2. Security,

Question #3. School administration and practices,

Question #4. School administration and practices,

Question #5. Co-worker,

Question #6. Working condition-for teaching,

Question #7. Supervision,

Question #8. Benefit programs,

Question #10. Role conflict-workload.

Question #12. Social status,

Question #17. Role conflict (work-to-family)

Question #18. Working conditions-in general.

Overall satisfaction with a job.

Question #22.

Organizational Commitment Survey

This study adapted the Allen and Meyer (1990) three-component commitment construct to examine faculty's level of organizational commitment (see Appendix F). This instrument consists of 24 items which were factor analyzed into three subcategories: affective commitment, continuance commitment, and normative commitment. Eight items were selected for inclusion in each of the affective commitment scales, continuance commitment scales, and normative commitment scales. The survey instrument was translated into a Chinese version with the researchers' permission (see Appendix G). While the instrument is based on the scales from the Allen and Meyer survey, the original contained a 7-point Likert scale that was reduced to a 5-point Likert scale to make it consistent with the faculty job satisfaction instrument.

Affective commitment is considered emotional attachment to the organization with which individuals identify and where they enjoy membership. This is measured using the affective portion (8 questions) of the Meyer and Allen Commitment Scale. The reliability for this scale has been reported as .87 using Cronbach's alpha in a previous study (Allen & Meyer, 1990).

Continuance commitment is viewed as a tendency to engage in organizational activities based on the individual's perceived costs or profit associated with continued participation or losses associated with leaving (Allen & Meyer, 1990). It is measured using the continuance portion (8 questions) of the Meyer and Allen Commitment Scale.

The reliability for this scale has been reported as .75 using Cronbach's alpha in a previous study (Allen & Meyer).

Normative commitment refers to a belief that one is obligated to an organization after joining.). It is measured using the normative portion (8 questions) of the Meyer and Allen Commitment Scale. The reliability for this scale has been reported as .79 using Cronbach's alpha in a previous study (Allen & Meyer, 1990).

Validity

In order to overcome the language barrier of Taiwanese faculty members, the questionnaire was translated into a Chinese version. A review panel included ten Taiwanese faculty members with English proficiency serving at institutes of technology. They were asked o review the questionnaire for appropriateness and clarity to ensure content validity. The questionnaire for the panel review was written in both English and Chinese, so they could review the appropriateness of the translation, as well as the appropriateness of the items in meaning job satisfaction and work commitment.

Pilot Study

A pilot study was completed in February 2003. A Chinese draft of the questionnaire was mailed to 50 faculty members at Taiwan's institutes of technology. The results of the pilot study identified misunderstandings, ambiguities, and unnecessary or inadequate items, and additional items were suggested. Necessary modifications in format and readability were made to the final questionnaire.

Reliability

The reliability coefficient of the subscales for both instruments was computed by using Cronbach's alpha on the data from the pilot study. Although Allen and Meyer (1990) have reported acceptable reliability for each subscale of the survey instrument, the researcher ran the Cronbach's alpha because of possible cultural differences.

The researcher also ran the reliability for each of the scales and subscales on the data of the complete sample. The reliability coefficients for affective commitment, continuance commitment, and normative commitment were .29, .86, and .62, respectively. For the job satisfaction instrument, the reliability coefficient for the overall job satisfaction was .86. The reliability coefficients for extrinsic satisfaction and intrinsic satisfaction subscales were .71 and .75, respectively.

<div align="center">Variables</div>

Demographics

The following demographic variables were included in this study: age, gender, marital status, length of employment, academic rank, and holding of an administrative duty or not.

Age. In this study, age was defined as the number of years a person has lived. The question asked the respondent's age for his or her next birthday in order to reduce confusion. This information was used as an independent variable in data analysis to look at the differences in the levels of job satisfaction and organizational commitment among faculty members.

Gender. Gender, male or female, was also be used as one of the independent variables to look at the differences in the levels of job satisfaction and organizational commitment among faculty members.

Marital status. Marital status referred only to either being married or single. Separated, divorced, widow, etc. were not included in this question. Marital status was used as one of the independent variables to look at the differences in the levels of job satisfaction and organizational commitment among faculty members.

Length of employment. Length of employment referred to the total number of years one has worked as a faculty member at the current institution. In the present study, the length of employment was used as one of the independent variables to examine the differences in the levels of job satisfaction and organizational commitment among faculty members.

Academic rank. Academic rank referred to the faculty's current job title. This category included professor, associate professor, assistant professor, instructor, and teaching assistant. Academic rank was used as one of the independent variables to examine the differences in the levels of job satisfaction and organizational commitment among faculty members.

Administrative duty. Administrative duty was defined as whether one had an administrative title or not. This category included a top administrator, a secondary level administrator, an administrative assistant, no administrative duty, or other. This variable was used to assess the differences in the levels of job satisfaction and organizational commitment among faculty members.

Job Satisfaction

For this study, job satisfaction was computed by calculating the mean score that the subject received on the Faculty Job Satisfaction Survey developed by the researcher. The items in the questionnaire ranged from 1 to 5 as follows: 1=strongly disagree, 2=disagree, 3=neither agree nor disagree, 4=agree, 5=strongly agree. The researcher computed a mean score for each of the subscales: intrinsic factors and extrinsic factors. The scores collected from the Job Satisfaction Survey were used as dependent variables to examine their relationship with the selected demographic variables.

Organizational Commitment

Organizational commitment was computed by calculating the mean scores that the subject received on the Organizational Commitment Scales, consisting of three subscales including the Affective Commitment Scale, Continuance Commitment Scale, and Normative Commitment Scale. The scores were used as dependent variables to examine the relationship with the selected demographic variables.

<div align="center">Research Questions</div>

This study sought to answer the following questions:

1. What are faculty members' level of job satisfaction in Taiwan's higher education institutions?

2. What are faculty members' level of organizational commitment in Taiwan's higher education institutions?

3. Is there a significant relationship between faculty members' level of job satisfaction and the following demographic variables: (a) age, (b) gender,

(c) marital status, (d) length of employment, (e) academic rank, and (f) administrative duty?

4. Is there a significant relationship between faculty members' level of organizational commitment and the following demographic variables: (a) age, (b) gender, (c) marital status, (d) length of employment, (e) academic rank, and (f) administrative duty?

5. Can faculty members' level of job satisfaction significantly predict their levels of organizational commitment?

<u>Data Analysis</u>

The data were analyzed using the SPSS for Windows 10.0 software.

For research questions 1 and 2, descriptive statistics, such as means and standard deviation, were calculated.

For research questions 3 and 4, independent t-tests were conducted for gender and marital status. One-way analyses of variance were conducted for academic rank and presence or absence of an administrative duty. Pearson product-moment correlation coefficients were calculated for the age and length of employment variables.

For research question 5, multiple regression analyses were conducted to determine what independent variables (intrinsic factors and extrinsic factors) significantly predicted affective, continuance, and normative commitment.

Because multiple statistical tests were conducted, the significance level was reduced to .01 to control for Type I errors.

Chapter IV

Results

<u>Introduction</u>

This chapter reports the results of the data analysis in this study. The purposes of this research were to (a) determine faculty members' levels of job satisfaction and organizational commitment; (b) assess if there were significant differences in faculty members' levels of job satisfaction and organizational commitment when grouped by demographic variables (age, gender, marital status, length of employment, academic rank, and administrative duty); and (c) investigate the relationship between faculty members' levels of job satisfaction and their levels of organizational commitment. This chapter addresses the research questions in the order that they were proposed.

<u>Screening Data</u>

Some surveys were excluded from the analysis because (a) respondents made multiple selections in the place where only one choice was expected, and/or (b) there were missing data, such as demographic information. This led to the elimination of 66 surveys, leaving 354 usable surveys for the final data analysis. Some questions were worded in a negative fashion that asked respondents to mark high scores for a negative response. All scores obtained from negatively phrased items were recoded for ease in reporting and comparing data.

<u>Findings Related to the Research Questions</u>

The following section describes the findings related to each of the five research questions.

Research Question 1 – What are faculty members' level of job satisfaction in Taiwan's higher education institutions?

The Faculty Job Satisfaction Survey (see Appendix D) was used to give a measure of overall job satisfaction. This part of the survey included 22 questions, answered on a 5-point Likert scale. Each of the items referred to a variable in the work environment, except question 22 which assessed the overall satisfaction with the job.

An overall level of job satisfaction was calculated by averaging the responses for all questions. Means and standard deviations were computed from the usable responses. The mean score on the 22-item scale dealing with faculty members' overall level of job satisfaction was 3.52 (SD = 0.47). The same procedures were used to measure attitudes in the extrinsic and intrinsic areas that comprise Herzberg's et al. (1959) two-factor theory of job satisfaction. The overall mean score on the 9-item subscale dealing with faculty members' level of satisfaction with extrinsic factors was 3.40 (SD = 0.47). The overall mean score on the 12-item subscale dealing with faculty members' level of satisfaction with intrinsic factors was 3.64 (SD = 0.52).

Total scores on the Faculty Job Satisfaction Survey revealed that the majority (55.6%; n = 197) of Taiwan's faculty members expressed that they were generally satisfied with their job; among these, 54.5% (n = 193) marked "very satisfied" and 1.1% (n = 4) marked "satisfied". There were no faculty members who saw themselves as "very dissatisfied" and only 2.3% (n = 8) rated themselves as "dissatisfied". About 42.1%

($\underline{n}$ = 149) of the faculty members saw themselves as neither satisfied nor dissatisfied in their jobs. In general, Taiwan's faculty job satisfaction scores fell in the "satisfied" area with a mean of 3.52 ($\underline{SD}$ = 0.47).

In order to determine sources of job satisfaction and job dissatisfaction, a hierarchy of the job satisfaction items was constructed by averaging each of the item scores from the faculty job satisfaction survey and ranking the items accordingly (see Table 2). Faculty indicated satisfaction with task significance, co-workers, and students' achievement; at the bottom of the hierarchy were challenge, intra-role conflict, and general working conditions.

Question 2 – What are faculty members' level of organizational commitment in Taiwan's higher education institutions?

The Organizational Commitment Scales, including the Affective Commitment Scale, Normative Commitment Scale, and Continuance Commitment Scale were used to measure the level of organizational commitment (see Appendix E). The overall mean score on the 8-item subscale dealing with faculty members' affective commitment was 3.17 ($\underline{SD}$ = 0.39). The overall mean score on the 8-item subscale dealing with faculty members' continuance commitment was 3.69 ($\underline{SD}$ = 0.72). The overall mean score on the 8-item subscale dealing with faculty members' normative commitment was 3.07 ($\underline{SD}$ = 0.41). As a group, the faculty members operated primarily from the continuance commitment component, followed by the affective and normative commitment components.

Table 2

Hierarchy of Sources of Job Satisfaction

Subscale	No	Item	M (Recoded M)*	SD
Intrinsic	20	I feel that my teaching is very meaningful. (task significance)	4.2994	0.7681
Extrinsic	5	I enjoy my colleagues. (co-workers)	4.1638	0.7269
Intrinsic	19	I feel good about my students' academic performance. (achievement)	4.1045	0.9448
Intrinsic	21	I feel a sense of pride in doing my job. (achievement)	3.9718	0.8444
Extrinsic	1	My present salary is compatible with my workload. (compensation)	3.9181	0.9136
Intrinsic	13	Being a faculty member in higher education gives me opportunities and time to pursue developmental activities. (advancement)	3.8249	0.9082
Intrinsic	15	My ability and skill are put to use in my teaching. (ability utilization)	3.8220	0.9061
Extrinsic	7	My supervisor handles his/her employees in a fair matter. (supervision)	3.7542	0.9663
Intrinsic	9	I have academic autonomy. (autonomy)	3.7034	1.0180
Extrinsic	10	I feel tension because I need to perform the duties of teaching, research, service, and/or administration simultaneously as a faculty member. (R) (role conflict)	2.3107 (3.6893)*	1.0722
Intrinsic	16	My ability and skill are put to use in my research. (ability utilization)	3.6864	0.8585

(Table 2 continued)

Subscale	No	Item	M (Recoded M)*	SD
Extrinsic	12	Being a faculty member in higher education is an honorable career and gets respect from the society. (status)	3.5226	0.8943
Extrinsic	8	My institution offers adequate fringe benefit programs. (money)	3.4633	0.9551
Extrinsic	6	The learning environment and instructional facilities make the teaching and learning processes easier. (working condition)	3.4463	0.9272
Intrinsic	11	I get recognition for my accomplishments. (recognition)	3.4266	0.8884
Extrinsic	2	My position at this institution is secure. (security)	3.2373	1.0322
Extrinsic	3	The administration makes appropriate decisions. (school administration)	3.1667	0.9419
Extrinsic	4	The administration is efficient in execution of the decisions. (school administration)	3.1441	0.9895
Extrinsic	17	I experience a work-family conflict because I am required to put in long hours in order to complete job-related tasks. (R) (role conflict)	2.9294 (3.0706)*	1.0172
Extrinsic	18	In general, I dislike the current work conditions. (R) (working condition)	3.8107 (2.1893)*	0.9790
Intrinsic	14	I am often bored with my job. (R) (challenge)	4.0932 (1.9068)*	0.9697

Note. Asterisk (*) denotes recoded mean.

Table 3 includes the means and standard deviations for each item of the affective, continuance, and normative commitment subscales. On the affective commitment subscale, faculty members scored relatively high on questions such as: (1) I would be very happy to spend the rest of my career with this institution (M = 3 .94, SD = 0.92), and (8) I do not feel a strong sense of belonging to my institution (Recoded M = 3.93, SD = 0.87). Faculty members scored relatively low on questions such as: (5) I do not feel like "part of the family" at my institution (Recoded M = 2.13, SD = 0.97), (6) I do not feel "emotionally attached" to this institution (Recoded M = 2.14, SD = 1.02), and (7) This institution has a great deal of personal meaning for me (M = 2.26, SD = 1.11).

On the continuance commitment subscale, faculty members scored relatively high on questions such as: (9) I am afraid of what might happen if I quit my job without another one lined up (M = 3.98, SD = 1.06), and (13) Right now, staying with my institution is a matter of necessity as much as desire (M = 3.92, SD = 0.93). Faculty members scored relatively low on questions such as: (11) Too much in my life would be disrupted if I decided I wanted to leave my institution now (M = 3.44, SD = 1.07).

On the normative commitment subscale, faculty members scored relatively high on questions such as: (20) One of the major reasons I continue to work for this institution is that I believe that loyalty is important and therefore feel a sense of moral obligation to remain (M = 3.49, SD = 1.04). Faculty members scored relatively low on questions such as: (24) I do not think that wanting to be a "company man/woman" is sensible anymore (Recoded M = 2.17, SD = 0.92), and (19) Jumping from organization to organization does not seem at all unethical to me (Recoded M = 2.93, SD = 1.07).

Table 3

Faculty Levels of Organizational Commitment

Subscale	No	Item	M (Recoded M)*	SD
Affective	1	I would be very happy to spend the rest of my career with this institution.	3.9435	0.9232
Affective	2	I enjoy discussing my institution with people outside it.	3.7740	0.9031
Affective	3	I really feel as if this institution's problems are my own.	3.7006	0.8974
Affective	4	I think that I could easily become as attached to another institution as I am to this one. (R)	2.5254 (3.4746)*	0.9405
Affective	5	I do not feel like "part of the family" at my institution. (R)	3.8701 (2.1299)*	0.9698
Affective	6	I do not feel "emotionally attached" to this institution. (R)	3.8559 (2.1441)*	1.0205
Affective	7	This institution has a great deal of personal meaning for me.	2.2627	1.1121
Affective	8	I do not feel a strong sense of belonging to my institution. (R)	2.0678 (3.9322)*	0.8654
Continuance	9	I am afraid of what might happen if I quit my job without another one lined up.	3.9802	1.0630
Continuance	10	It would be very hard for me to leave my institution right now, even if I wanted to.	3.6271	1.0495
Continuance	11	Too much in my life would be disrupted if I decided I wanted to leave my institution now.	3.4407	1.0688

(Table 3 continued)

Subscale	No	Item	M (Recoded M)*	SD
Continuance	12	It would not be too costly for me to leave my institution now. (R)	2.1836 (3.8164)*	0.9112
Continuance	13	Right now, staying with my institution is a matter of necessity as much as desire.	3.9153	0.9302
Continuance	14	I feel that I have too few options to consider leaving this institution.	3.5593	1.0255
Continuance	15	One of the few serious consequences of leaving this institution would be the scarcity of available alternatives.	3.6780	1.0089
Continuance	16	One of the major reasons I continue to work for this institution is that leaving would require considerable personal sacrifice.	3.5085	0.9964
Normative	17	I think that people these days move from one organization to another organization too often.	3.2260	1.0126
Normative	18	I do not believe that a person must always be loyal to his or her organization. (R)	2.6723 (3.3277)*	1.0293
Normative	19	Jumping from organization to organization does not seem at all unethical to me. (R)	3.0678 (2.9322)*	1.0729
Normative	20	One of the major reasons I continue to work for this institution is that I believe that loyalty is important and therefore feel a sense of moral obligation to remain.	3.4859	1.0409
Normative	21	If I got another offer for a better job elsewhere, I would not feel it was right to leave my organization.	3.0424	1.0938

(Table 3 continued)

Subscale	No	Item	M (Recoded M)*	SD
Normative	22	I was taught to believe in the value of remaining loyal to one organization.	3.1130	1.0875
Normative	23	Things were better in the days when people stayed with one organization for most of their careers.	3.1695	1.1289
Normative	24	I do not think that wanting to be a "company man/woman" is sensible anymore. (R)	3.8277 (2.1723)*	0.9226

Note. Asterisk (*) denotes recoded mean.

Question 3 – Is there a significant relationship between faculty members' level of job satisfaction and the following demographic variables: (a) age, (b) gender, (c) marital status, (d) length of employment, (e) academic rank, and (f) administrative duty?

Age. There was no statistically significant correlation between faculty members' age and (a) their overall level of job satisfaction, $r(352) = .135$, $p = .011$ (two-tailed) or (b) their level of satisfaction with intrinsic factors, $r(352) = .073$, $p = .169$ (two-tailed). There was a statistically significant but small positive correlation between faculty members' age and their level of satisfaction with extrinsic factors, $r(352) = .168$, $p = .002$ (two-tailed).

Gender. There was no statistically significant difference between males and females on their overall level of job satisfaction and their levels of satisfaction with intrinsic or extrinsic factors (see Table 4).

Marital status. There was no statistically significant difference between single faculty members and married faculty members on their overall level of job satisfaction and their levels of satisfaction with intrinsic or extrinsic factors (see Table 5).

Length of employment. There was no statistically significant correlation between faculty members' length of employment and (a) their overall level of job satisfaction, $r(352) = .112$, $p = .035$ (two-tailed) or (b) their level of satisfaction with intrinsic factors, $r(352) = .062$, $p=.243$ (two-tailed). There was a statistically significant but small positive correlation between faculty members' length of employment and their level of satisfaction with extrinsic factors, $r(352) = .137$, $p = .010$ (two-tailed).

Table 4

Relationship between Job Satisfaction and Gender

Overall Satisfaction

Gender	M	SD	n
Male	3.5441	.4816	207
Female	3.4910	.4508	147

	t	df	p
Overall Satisfaction	1.050	352	.295

Intrinsic Satisfaction

Gender	M	SD	n
Male	3.6694	.5217	207
Female	3.5949	.5203	147

	t	df	p
Intrinsic Satisfaction	1.325	352	.186

Extrinsic Satisfaction

Gender	M	SD	n
Male	3.4110	.4887	207
Female	3.3776	.4361	147

	t	df	p
Extrinsic Satisfaction	.664	352	.507

Table 5

Relationship between Job Satisfaction and Marital Status

Overall Satisfaction

Marital Status	M	SD	n
Single	3.4329	.5156	65
Married	3.5422	.4566	289

	t	df	p
Overall Satisfaction	-1.702	352	.090

Intrinsic Satisfaction

Marital Status	M	SD	n
Single	3.5675	.6184	65
Married	3.6544	.4972	289

	t	df	p
Intrinsic Satisfaction	-1.213	352	.226

Extrinsic Satisfaction

Marital Status	M	SD	n
Single	3.3064	.4857	65
Married	3.4175	.4614	289

	t	df	p
Extrinsic Satisfaction	-1.737	352	.083

Academic rank. There were no statistically significant differences among professors, associate professors, assistant professors, instructors, and teaching assistants on their overall level of job satisfaction, $F(4, 349) = 2.92$, $p = .021$ or their level of satisfaction with intrinsic factors, $F(4, 349) = 2.211$, $p = .067$. There were statistically significant differences among professors, associate professors, assistant professors, instructors, and teaching assistants on their level of satisfaction with extrinsic factors, $F(4, 349) = 3.534$, $p = .008$. Follow-up Tukey pairwise comparison tests indicated that associate professors had a higher level of satisfaction with extrinsic factors than instructors ($p = .036$). Table 6 presents the means and standard deviations for faculty members' overall level of job satisfaction and their level of satisfaction with intrinsic and extrinsic factors across academic rank groups.

Administrative duty. There were no statistically significant differences among faculty members who take on administrative duty as a top administrator, a secondary level administrator, an administrative assistant, or those who do not take on any administrative duty on their overall level of job satisfaction, $F(3, 350) = 3.564$, $p = .014$ or their level of satisfaction with intrinsic factors, $F(3, 350) = 1.925$, $p = .125$. There were statistically significant differences among faculty members who take on administrative duty as a top administrator, a secondary level administrator, an administrative assistant, and those who do not take on any administrative duty on their level of satisfaction with extrinsic factors, $F(3, 350) = 4.882$, $p = .002$. Follow-up Tukey pairwise comparison tests indicated that faculty members with a top administrator position had a higher level of satisfaction with extrinsic factors than faculty members

Table 6

Relationship between Job Satisfaction and Academic Rank

Academic Rank	M	SD	n
Overall Level of Job Satisfaction			
Professor	3.8523	0.2660	4
Associate Professor	3.7023	0.5309	51
Assistant Professor	3.4768	0.4457	45
Instructor	3.4902	0.4546	251
Teaching Assistant	3.3636	0.4746	3
Level of Satisfaction with Intrinsic Factors			
Professor	3.7500	0.2625	4
Associate Professor	3.8344	0.5579	51
Assistant Professor	3.6025	0.5230	45
Instructor	3.6038	0.5123	251
Teaching Assistant	3.5926	0.3572	3
Level of Satisfaction with Extrinsic Factors			
Professor	3.8750	0.2764	4
Associate Professor	3.5686	0.5371	51
Assistant Professor	3.3463	0.3973	45
Instructor	3.3672	0.4553	251
Teaching Assistant	3.1111	0.5672	3

who do not take on any administrative duty ($\underline{p}$ = .006). Table 7 presents the means and standard deviations for faculty members' overall level of satisfaction and their level of satisfaction with intrinsic and extrinsic factors across administrative duty groups.

Question 4 – Is there a significant relationship between faculty members' level of organizational commitment and the following demographic variables: (a) age, (b) gender, (c) marital status, (d) length of employment, (e) academic rank, and (f) administrative duty?

Age. There was no statistically significant correlation between faculty members' age and (a) the affective organizational commitment subscale, $\underline{r}$(352) = .038, $\underline{p}$ = .476 (two-tailed), (b) the continuance organizational commitment subscale, $\underline{r}$(352) = .094, $\underline{p}$ = .078 (two-tailed), or (c) the normative organizational commitment subscale, $\underline{r}$(352) = .085, $\underline{p}$ = .112 (two-tailed).

Gender. There was a statistically significant difference between males ($\underline{M}$ = 3.22, $\underline{SD}$ = 0.40) and females ($\underline{M}$ = 3.10, $\underline{SD}$ = 0.36) and their scores on the affective commitment subscale, $\underline{t}$(352) = 3.077, $\underline{p}$ = .002 (two-tailed). There was no statistically significant difference between males ($\underline{M}$ = 3.72, $\underline{SD}$ = 0.40) and females ($\underline{M}$ = 3.73, $\underline{SD}$ = 0.36) and their scores on the continuance commitment subscale, $\underline{t}$(352) = 0.788, $\underline{p}$ = .431 (two-tailed). There was a statistically significant difference between males ($\underline{M}$ = 3.11, $\underline{SD}$ = 0.39) and females ($\underline{M}$ = 2.99, $\underline{SD}$ = 0.43) and their scores on the normative commitment subscale, $\underline{t}$(352) = 2.637, $\underline{p}$ = .009 (two-tailed).

Table 7

Relationship between Job Satisfaction and Administrative Duty

Administrative Duty	M	SD	n
Overall Level of Job Satisfaction			
Top Administrator	3.8125	0.4379	24
Secondary Administrator	3.5417	0.5668	24
Administrative Assistant	3.5284	0.4716	72
No Administrative Duty	3.4883	0.4529	234
Level of Satisfaction with Intrinsic Factors			
Top Administrator	3.8796	0.4859	24
Secondary Administrator	3.5972	0.6918	24
Administrative Assistant	3.6451	0.5240	72
No Administrative Duty	3.6159	0.5014	234
Level of Satisfaction with Extrinsic Factors			
Top Administrator	3.7187	0.4381	24
Secondary Administrator	3.4757	0.5157	24
Administrative Assistant	3.4074	0.4583	72
No Administrative Duty	3.3529	0.4564	234

Marital status. There was no statistically significant difference between single faculty members and married faculty members and their scores on the (a) affective commitment, (b) continuance commitment, and (c) normative commitment subscales (see Table 8).

Length of employment. There was no statistically significant correlation between faculty members' length of employment at the institution and (a) their scores on the affective commitment subscale, $r(352) = -.039$, $p = .468$ (two-tailed) or (b) their scores on the normative commitment subscale, $r(352) = .094$, $p = .078$ (two-tailed). There was a statistically significant but small positive correlation between faculty members' length of employment at the institution and their scores on the continuance commitment subscale, $r(352) = .239$, $p < .0005$ (two-tailed).

Academic rank. There were no statistically significant differences among professors, associate professors, assistant professors, instructors, and teaching assistants and their scores on the affective commitment subscale, $F(4, 349) = 1.594$, $p = .175$ or the normative commitment subscale, $F(4, 349) = 0.985$, $p = .416$. There were statistically significant differences among professors, associate professors, assistant professors, instructors, and teaching assistants and their scores on the continuance commitment subscale, $F(4, 349) = 3.60$, $p = .007$. Follow-up Tukey pairwise comparison tests indicated that instructors had higher levels of continuance commitment than associate professors ($p = .005$). Table 9 presents the means and standard deviations for faculty members' scores on the affective, continuance, and normative commitment subscales across academic rank groups.

Table 8

Relationship between Organizational Commitment and Marital Status

Affective Commitment

Marital Status	M	SD	n
Single	3.1808	.3815	65
Married	3.1678	.3936	289

	t	df	p
Affective Commitment	0.241	352	.810

Continuance Commitment

Marital Status	M	SD	n
Single	3.5000	.7005	65
Married	3.7336	.7209	289

	t	df	p
Continuance Commitment	-2.372	352	.018

Normative Commitment

Marital Status	M	SD	n
Single	3.0019	.3621	65
Married	3.0714	.4222	289

	t	df	p
Normative Commitment	-1.228	352	.220

Table 9

Relationship between Organizational Commitment and Academic Rank

Academic Rank	M	SD	n
Affective Commitment			
Professor	3.5000	0.5103	4
Associate Professor	3.2525	0.3917	51
Assistant Professor	3.1833	0.3552	45
Instructor	3.1474	0.3933	251
Teaching Assistant	3.0417	0.3819	3
Continuance Commitment			
Professor	3.5625	0.9270	4
Associate Professor	3.3995	0.7973	51
Assistant Professor	3.5472	0.6920	45
Instructor	3.7744	0.6941	251
Teaching Assistant	3.9583	0.6415	3
Normative Commitment			
Professor	3.3750	0.7071	4
Associate Professor	3.0858	0.5077	51
Assistant Professor	3.0167	0.2927	45
Instructor	3.0583	0.4042	251
Teaching Assistant	2.8333	0.3819	3

Administrative duty. There were no statistically significant differences among faculty members who take on administrative duty as a top administrator, a secondary level administrator, an administrative assistant, and those who do not take on any administrative duty and their scores on the affective commitment subscale, $F(3, 350) = 0.434$, $p = .729$, the continuance commitment subscale, $F(3, 350) = 0.738$, $p = .530$, or the normative commitment subscale, $F(3, 350) = 0.736$, $p = .531$. Table 10 presents the means and standard deviations for faculty members' scores on the affective commitment, continuance commitment, and normative commitment subscales across administrative duty groups.

Question 5 – Can faculty levels of job satisfaction significantly predict their levels of organizational commitment?

Multiple regression analyses were conducted to determine if job satisfaction (extrinsic and intrinsic factors) significantly predicts affective, continuance, and normative commitment. Table 11 includes the correlations among the job satisfaction and commitment subscales.

The variables that were important in predicting faculty members' level of affective commitment were their levels of satisfaction with extrinsic factors and intrinsic factors. The linear regression equation for the two predictor model is AFFECTIVE = 1.936 + 0.14 (extrinsic) + 0.208 (intrinsic), $R^2 = .177$. The variable that was significant in predicting faculty members' level of continuance commitment was their level of satisfaction with intrinsic factors. The linear regression equation for the one predictor

Table 10

Relationship between Organizational Commitment and Administrative Duty

Administrative Duty	M	SD	n
Affective Commitment			
Top Administrator	3.1823	0.3901	24
Secondary Administrator	3.0938	0.3089	24
Administrative Assistant	3.1979	0.3638	72
No Administrative Duty	3.1683	0.4072	234
Continuance Commitment			
Top Administrator	3.5208	0.7378	24
Secondary Administrator	3.5833	0.8595	24
Administrative Assistant	3.6910	0.6537	72
No Administrative Duty	3.7190	0.7265	234
Normative Commitment			
Top Administrator	3.0052	0.3639	24
Secondary Administrator	2.9688	0.5544	24
Administrative Assistant	3.0417	0.3536	72
No Administrative Duty	3.0785	0.4175	234

Table 11

Relationship between Job Satisfaction and Organizational Commitment

		Satisfaction	Extrinsic	Intrinsic	Affective	Continuance	Normative
Satisfaction	Pearson R	1.000	.943**	.932**	.422**	.305**	.336**
	Sig. (2-tailed)	.	<.0005	<.0005	<.0005	<.0005	<.0005
	n	354	354	354	354	354	354
Extrinsic	Pearson r	.943**	1.000	.764**	.380**	.250**	.324**
	Sig. (2-tailed)	<.0005	.	<.0005	<.0005	<.0005	<.0005
	n	354	354	354	354	354	354
Intrinsic	Pearson r	.932**	.764**	1.000	.406**	.305**	.302**
	Sig. (2-tailed)	<.0005	<.0005	.	<.0005	<.0005	<.0005
	n	354	354	354	354	354	354
Affective	Pearson r	.422**	.380**	.406**	1.000	.234**	.384**
	Sig. (2-tailed)	<.0005	<.0005	<.0005	.	<.0005	<.0005
	n	354	354	354	354	354	354
Continuance	Pearson r	.305**	.250**	.305**	.234**	1.000	.379**
	Sig. (2-tailed)	<.0005	<.0005	<.0005	<.0005	.	<.0005
	n	354	354	354	354	354	354
Normative	Pearson r	.336**	.324**	.302**	.384**	.379**	1.000
	Sig. (2-tailed)	<.0005	<.0005	<.0005	<.0005	<.0005	.
	n	354	354	354	354	354	354

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

model is CONTINUANCE = 2.148 + 0.424 (intrinsic), $\underline{R}^2$ = .093. The variables that

were significant in predicting faculty members' level of normative commitment were

their levels of satisfaction with extrinsic factors and intrinsic factors. The linear

regression equation for the two predictor model is NORMATIVE = 2.013 + 0.197

(extrinsic) + 0.103 (intrinsic), $\underline{R}^2$ = .112.

Summary

The present chapter has reported the results of the proposed research questions

concerning the relationship between faculty members' job satisfaction and their

organizational commitment. Two types of satisfaction were surveyed: intrinsic and

extrinsic factors. Three types of commitment were surveyed: affective, normative, and

continuance commitment. In addition, these factors were correlated with selected

demographic variables, including age, gender, marital status, length of employment,

academic rank, and administrative duty. The study's findings are discussed and

interpreted in Chapter 5.

Chapter V

Discussion

Chapter V is divided into four sections. The first section summarizes the purpose

of the study. The second section interprets the results. The third section includes

recommendations for practice. The final section includes recommendations for research

regarding job satisfaction and organizational commitment among faculty in Taiwan's

higher education institutions.

<u>Purpose of the Study</u>

The purpose of the study was to determine faculty members' level of job

satisfaction and organizational commitment and to determine if there were significant

differences in faculty members' level of job satisfaction and organizational commitment

when grouped by demographic variables (age, gender, marital status, length of

employment, academic rank, and the presence or absence of an administrative duty).

This study was delimited to faculty members at five institutes of technology in the Mid-

Taiwan area.

The research questions that guided this study included:

1. What are faculty members' levels of job satisfaction in Taiwan's higher

    education institutions?

2. What are faculty members' levels of organizational commitment in Taiwan's

    higher education institutions?

3. Is there a significant relationship between faculty members' level of job

    satisfaction and the following demographic variables: (a) age, (b) gender,

(c) marital status, (d) length of employment, (e) academic rank, and

(f) administrative duty?

4. Is there a significant relationship between faculty members' level of

organizational commitment and the following demographic variables: (a) age,

(b) gender, (c) marital status, (d) length of employment, (e) academic rank,

and (f) administrative duty?

5. Can faculty members' level of job satisfaction significantly predict their level

of organizational commitment?

Interpretation of Results

Demographic Information

The demographic information added to an understanding of the faculty

characteristics in Taiwan's institutes of technology. The majority (70.9%) of the 354

respondents were instructors while only 4 of the respondents or 1.1% were full professors;

and a large percentage (58.8%) of the faculty had worked for their institutions less than

10 years. This indicated that Taiwan's institutes of technology had hired many

instructors during the past 10 years so that they could change status from a junior college

to an institute of technology. To change status from a junior college to an institute of

technology, the faculty to student ratio must be 1:40, in general, and 1:25 for day school,

and 21% or more of the faculty members must have the rank of professor.

Currently, many of Taiwan's institutes of technology are trying to change status

to universities. This need can be traced to (a) the huge expansion in higher education

institutions, (b) the shrinking of the traditional-age college population, (c) the stronger

reputation of universities when compared to institutes of technology, and (d) increased competition to recruit highly qualified students. To change status from an institute of technology to a university, 40% or more of the faculty members must have the rank of professor. Many institutes of technology must either encourage their faculty members to obtain doctoral degrees or terminate their instructors in order to hire professors. Such changes create increased pressure for all instructors and have the potential to influence affective, continuance, and normative commitment.

Level of Job Satisfaction

The results of this study indicated that most faculty members are satisfied with their current jobs. The faculty members' overall level of job satisfaction scores fell in the "satisfied" area with a mean of 3.52 ($\underline{SD}$ = 0.47). Researchers indicated that job satisfaction is associated with organizational outcomes such as employee turnover, work stress, absenteeism, and job performance (DeCotiis & Summers, 1987; Mathieu & Zajac, 1990). Taiwan's faculty members' job satisfaction may result in an increase in retention and a decrease in turnover costs.

Satisfaction in the changing world of work. Employee satisfaction/dissatisfaction in organizations not only affects employee retention but also influences their attitudes toward change. Highly satisfied faculty members will generally be innovative and motivated to establish and maintain an environment conducive to learning (Iiacqua & Schumacher, 1995). Taiwan's faculty members' level of job satisfaction may influence them to have a more positive reaction toward many forms of change. Recent years have seen some major changes in the vocational university system of the Taiwan, Republic of

China. Institutes of technology are constantly looking for new ways in which to expand faculty members' potential to work effectively because they are the key players in determining students' satisfaction and retention.

There are some major changes occurring in Taiwan's vocational institutions. The Ministry of Education in Taiwan has launched a project of "Promoting University Academic Excellence" to encourage universities to make international connections with worldwide educational institutions for broadening students' learning experience, sharpening faculty members' professional knowledge and skills, and then improving the prestige of institutions (Tzeng, 2001). In addition, vocational institutions have been judged by their relationship with the labor market. Thus, faculty members have responsibilities not only in teaching, research, and service, but also in building relationships with labor markets. Nowadays, many institutes of technology are pushing their faculty to do research, compared to instructors whose primary job focuses on teaching at the junior college level. The study of job satisfaction is implicitly based upon the idea that satisfied workers, at all organizational levels, are important contributors to an organization's effectiveness and ultimately to long-term success (Spector, 1997). Conversely, dissatisfied workers are implicitly thought to make less of a contribution to the organization. Increased effectiveness in institutes of technology will be important to help them survive in the competitive educational market in Taiwan. In order to run more effectively, these institutes need to make some adjustments. The pressure for success at each institution ultimately falls upon motivating and training faculty members. Those

highly satisfied faculty members in Taiwan's vocational institutions may be innovative and open to change.

Areas of job dissatisfaction. In an effort to increase satisfaction levels, the areas of job dissatisfaction should be identified and improved. The areas of greatest job dissatisfaction as reported by the Taiwan faculty members were: (1) challenge, which was defined as being bored with their jobs; (2) inter-role conflict, which was the experience of work-family conflict because of long working hours; (3) the general working conditions; and (4) school administration and practices in making appropriate decisions and execution of the decisions. Among these, intra-role conflict, general working conditions, and school administration and practices are extrinsic factors. In general, faculty members tended to be more dissatisfied with their working environment than the financial support they received or professional acceptance. In order to increase satisfaction, Taiwan's institutes of technology need to improve the working environment.

Areas of job satisfaction. When the Faculty Job Satisfaction constructs were ranked, the areas of greatest job satisfaction as reported by the Taiwan faculty members were: (1) task significance, which was defined as teaching is meaningful; (2) co-workers; (3) achievement, which was defined as being able to see students' academic performance; (4) sense of pride in being a teacher; (5) compensation; and (6) advancement, which was defined as the opportunities and time to pursue developmental activities. Among these, task significance, achievement, sense of pride, and advancement are intrinsic factors based on Herzberg's et al. (1959) two-factor theory. Task significance and achievement were also areas of greatest job satisfaction in the study by Chung (2001) of Taiwan's high

school counselors. The results of this study indicated that Taiwan's teachers tended to be satisfied with professional acceptance and the financial support they received.

Conflicting with Maslow's hierarchy of needs. The distinction between intrinsic and extrinsic satisfaction was made in this study. Extrinsic satisfaction is derived from salary, status, security, interpersonal relationships, supervision, and working conditions. The mean of faculty members' level of satisfaction with extrinsic factors was 3.40 (SD = 0.47). Intrinsic satisfaction is derived from actually performing the work and experiencing feelings of accomplishment, self-actualization, and identity with the task. The mean of faculty members' level of satisfaction with intrinsic factors was 3.64 (SD = 0.52). This study found little support for Maslow's theory. The lowest level in Maslow's hierarchy of needs contains the physiological needs, followed by safety needs, social needs, ego needs, and self-actualization needs. In general, the lower level needs must be fulfilled before higher-order needs can be satisfied. However, Taiwan's faculty members were fairly satisfied with high-order needs, such as achievement and advancement, while they were less satisfied with lower level needs, such as working conditions. The findings of this study tend to support Alderfer's ERG theory in which there is no hierarchy of needs and which argues that people work simultaneously to satisfy their existence, relatedness, and growth needs (Champoux, 2003).

Academic Rank, Administrative Duty, and Job Satisfaction

There were statistically significant differences among (a) faculty members' academic rank and (b) administrative duty and their level of extrinsic satisfaction. Academic rank was found to be a significant variable in faculty members' job satisfaction

in a study by Tack and Patitu (1992). The results of this study indicated that associate professors had a higher level of extrinsic satisfaction than instructors. Faculty members with a top administrative position had a higher level of extrinsic satisfaction than those who did not take on any administrative duty. Taiwan has a fixed salary system in which length of employment and academic rank determine a faculty member's compensation (see Appendix H). Also, a faculty member who participates in administrative duty and has a high ranking administrative duty can get additional benefits. Baldwin (1990) proposed that faculty attitudes toward their job change as their careers place different demands on them. A change in rank or job title may alter faculty members' focus, concerns, and subsequent goals, and thus, may influence their affective attitudes toward their jobs. The fact that extrinsic job satisfaction increased with academic rank and administrative duty is logical because a change in rank or job title increases benefits and salary in Taiwan's higher education system.

Levels of Organizational Commitment

Investments and cost considerations. The results showed that the faculty operated primarily from continuance commitment with a mean of 3.69 (SD = 0.72), followed by affective commitment with a mean of 3.17 (SD = 0.39) and normative commitment with a mean of 3.07 (SD = 0.41). This pattern indicates that Taiwan's faculty members engage in organizational activities based on the individuals' perceived costs or profit associated with continued participation or losses associated with leaving. Expected returns on the individual's investment of time and effort in the organization, in addition

to other rewards help create a bond between the individual and the organization (Allen & Meyer, 1997). This finding was expected in Taiwan.

Traditionally, affective commitment and normative commitment have been dominant because of the traditional Chinese social and ethical philosophy influenced by Confucianism. According to Confucianism, all human relationships involve a set of defined roles and mutual obligations. The relationships a person has in society determine or define moral action. Most Chinese appreciate ethical values such as selflessness, friendship, love, obedience, and sacrifice for others or for a common good. Thus, employees have a desire and obligation to maintain membership, and are willing to be actively involved in organizational activities or jobs for a common good. However, nowadays, more and more organizations are terminating employees, not for their poor performance but for economic reasons or organizational goals. Theoretically, more employees may be learning that employers care little about them. Therefore, employees may be learning that commitment to their employer will, in fact, not be rewarded. It is logical, then, that there may be a decreased level of affective and normative organizational commitment in modern society.

Alternative considerations. The results indicated that Taiwan's faculty members operated primarily from continuance commitment. This also indicates that faculty members' perceived availability of job alternatives is few. The perceived availability of alternatives is negatively correlated with continuance commitment (Allen & Meyer, 1997). As reported above, the majority (70.9%) of the 354 respondents were instructors. Instructors who think they have fewer viable alternatives may have strong continuance

commitment. Several events or actions can influence one's perceptions of alternatives. For example, as indicated above, many institutes of technology want to change status to technological universities where more faculty members must have the rank of professor.

Multiple commitments and performance at work. Although no empirical study has been done to support the notion that continuance commitment is linked to negative work behaviors, it has been suggested that the effects of continuance and normative commitment might not be as long-lasting as affective commitment (Meyer & Allen, 1997). Continuance commitment might not have the same positive implications for on-the-job behavior and performance as affective commitment (Meyer & Allen, 1991). It is possible that strong continuance-committed employees believe they are trapped in a no choice situation, so they expend their energy on behalf of the organization in a passive and hopeless manner (Meyer & Allen, 1997). Affective commitment to the organization has the strongest and most consistent relationship with desirable outcomes, such as retention, performance, and citizenship (Porter et al., 1974; Wiener & Vardi, 1980). School management should pay attention to how different commitment develops and to anticipate the impact of a particular policy or practice on employees' commitment. As many of Taiwan's institutes of technology are trying to transform themselves to universities and must hire faculty with the rank of professor and terminate instructors, each institution should pay attention to foster a stronger sense of affective commitment in its faculty and staff.

<u>Inconsistent Response in Affective Commitment Construct</u>

One issue that should be considered is that the responses to the eight questions in the affective commitment subscale were somewhat inconsistent. Respondents seemed to have some difficulties completing the measure; that meant the items assessing affective commitment might not make sense to the respondents in the context, especially for some reverse keyed items. In this study, Taiwan's faculty members marked "disagree" on reversed questions such as: (4) I think that I could easily become as attached to another institution as I am to this one ($\underline{M}$ = 2.53, Recoded $\underline{M}$ = 3.47, $\underline{SD}$ = 0.94), and (8) I do not feel a strong sense of belonging to my institution ($\underline{M}$ = 2.07, Recoded $\underline{M}$ = 3.93, $\underline{SD}$ = 0.87). However, faculty members marked "agree" on reverse keyed questions such as: (5) I do not feel like "part of the family" at my institution ($\underline{M}$ = 3.87, Recoded $\underline{M}$ = 2.13, $\underline{SD}$ = 0.97), and (6) I do not feel "emotionally attached" to this institution ($\underline{M}$ = 3.86, Recoded $\underline{M}$ = 2.14, $\underline{SD}$ = 1.02). Perhaps the translated questions in the affective commitment portion of the instrument did not appropriately measure what was occurring in this sample. The definitions of "part of the family" and "emotionally attached" should be clarified in the translation process.

<u>Organizational Commitment and Demographic Variables</u>

<u>Gender differences on affective and normative commitment.</u> Some researchers have proposed that males are more committed to the work organization than females (DeCottiis & Summers, 1987; Reyes, 1989). This study also concluded that male faculty members have stronger affective commitment and normative commitment than female faculty members. This means that Taiwan's male faculty members feel more emotional

attachment and moral obligation to remain in the organization than female faculty members. This may be the result of differential sex role socialization in Taiwan. Chinese society is mainly focused on the culture of men. Males are encouraged to practice values, such as respect for superiors and parents, loyalty to government, and keeping one's place in society. The dignity of the man depends on the proper behavior for one's position and role. Many things in Taiwan's society may contribute to making women less committed to their jobs than men, including the view that women's primary importance lies in their contribution to the family. Despite the rapid movement of women into the paid labor force, the care of the husband, children, and home is still women's responsibility.

Lack of significant relationships on affective commitment. There was a surprising lack of significant relationships between affective commitment and personal characteristics. Affective commitment was not significantly related to age, marital status, length of employment, academic rank, and administrative duty. This conflicts with past research findings that affective commitment, which is indicative of an emotional attachment between the employee and the institution, significantly increases with employee age and length of employment (DeCotiis & Summers, 1987; Mathieu & Zajac, 1990). The lack of significant relationships in this study may be reflective of the nature of this sample. Taiwan's faculty members in higher education have not been as widely studied as other groups. Also, Taiwan's faculty members have enjoyed a wide variety of job opportunities in the past. The mobility of faculty may reduce the influence of personal characteristics, such as length of employment and age on affective commitment.

Continuance commitment and academic rank. Continuance commitment was significantly related to the personal characteristic of academic rank. No literature has been found to support the influence of academic rank on organizational commitment. One hypothesized antecedent of continuance commitment is employees' perception of employment alternatives; employees who think they have several viable alternatives will have weaker continuance commitment than those who think their alternatives are few (Meyer & Allen, 1997). The results indicated that instructors have higher levels of continuance commitment than associate professors. One explanation may be that faculty members with a higher academic rank become an attractive commodity for competitive employers and therefore have more opportunity to move to other institutions. In Taiwan, instructors with only a master's degree have very few opportunities to find other teaching jobs in Taiwan's higher education system because many of Taiwan's institutes of technology are trying to transform themselves to universities and must hire faculty with the rank of professor. As alternative employment opportunities increase, faculty with higher academic ranks may find other public and research-oriented universities more attractive. This phenomenon is more apparent in Taiwan because Taiwan's education system does not have a tenure system as the United States education system does. This explanation supports the fact that faculty with assistant and associate professorships have a higher turnover rate than instructors in Taiwan's higher education institutions.

Job Satisfaction and Organizational Commitment

Job satisfaction as a predictor of organizational commitment. Although there is certainly a chicken-and-egg debate over issues regarding the relationship between job

satisfaction and organizational commitment, several researchers have made the case that

job satisfaction is a predictor of organizational commitment (Mathieu, 1988; Porter et al.,

1974). Commitment is more of a global response to an organization, and job satisfaction

is more of a response to a specific job or various facets of the job. Therefore,

commitment is more of an attachment to the employing organization as opposed to

specific tasks, environmental factors, and the location where the duties are performed

(Mowday et al., 1982). When discussed in these terms, commitment should be more

consistent than job satisfaction over time. "Although day-to-day events in the work place

may affect an employee's level of job satisfaction, such transitory events should not

cause an employee to reevaluate seriously his or her attachment to the overall

organization" (Mowday et al., p. 28).

Satisfaction-commitment relationship. The statement of the problem in this study

focused on whether there was a relationship between job satisfaction and organizational

commitment. Theoretically there have been a few studies relevant to establishing the

satisfaction-commitment relationship, which showed that satisfaction was a determinant

of organizational commitment and that other personal and organizational characteristics

influence commitment indirectly through their impact on job satisfaction (e.g., DeCotiis

& Summers, 1987; Williams & Hazer, 1986). The statistical analyses of this study

support the model by Williams and Hazer of job satisfaction as a determinant of

organizational commitment. However, the relationship between organizational

commitment and job satisfaction is weak. There may be other organizational factors that

influence commitment, such as the policy to replace instructors with professors.

Recommendations for Practice

This study has provided findings related to the fields of job satisfaction and organizational commitment among faculty members in Taiwan's institutes of technology. In light of the findings and information obtained from the relevant literature, the following actions are recommended to those in the field of educational administration and supervision in Taiwan's vocational education system.

First, school administration should be aware of the sources of job satisfaction and dissatisfaction among faculty. By exploring different facets of job satisfaction, areas of low satisfaction could be identified and thus, could aid in improving job satisfaction (Truell et al., 1998). The results of this study indicated that faculty had less satisfaction on challenge, inter-role conflict, general working conditions, and school administration and practices in making appropriate decisions and execution of the decisions. The findings may encourage (a) school administrators to adjust the way of deciding the policies and to give faculty members an opportunity to become involved in the policy development process, thereby creating a feeling of ownership; (b) school managers to help faculty members learn why policies are important and identify employees' perceptions of current policies through discussion, meetings, and interviews; (c) school administrators to reduce faculty members' working hours; and (d) schools to invest more in teaching facilities.

Second, school administrators should continuously redesign the workplace and improve the way they manage their faculty and staff. There is a link between Human Resource Management practices and organizational commitment and job satisfaction

(Meyer & Allen, 1997). The areas of Human Resource Management practices include recruitment and selection, socialization and training, assessment and promotion, and compensation and benefits (Meyer & Allen). Providing accurate information during the recruitment process, using socialization strategies designed to foster faculty members' sense of self-worth and belongingness, and communicating during changes are some things that institutions can do to improve the way they manage their faculty and staff.

Third, some educational changes in Taiwan create increased pressure for all instructors and have the potential to influence their job satisfaction and organizational commitment. As indicated, one major change for Taiwan's institutes of technology is that they are trying to change status to universities, and they must either encourage their faculty members to obtain doctoral degrees or terminate their instructors in order to hire professors. As institutes of technology begin to layoff the instructors, it may result in increased turnover among the organization's most valued employees, which are those with professorships (Meyer & Allen, 1997). Institutes of technology should be cautioned as they begin to layoff the instructors.

Finally, the results of this study indicated that associate professors had significantly higher levels of satisfaction with extrinsic factors than instructors while instructors had higher levels of continuance commitment than associate professors. Nowadays, many institutes of technology are initiating financial support programs for faculty to pursue doctoral degrees. However, after those faculty members are promoted to assistant professor or associate professor, they become attractive to other higher education institutions; consequently, they become less committed to their institutions. It

is obvious that the institutes of technology cannot get a return from their investment on faculty academic rank promotions when this is occurring. Therefore, those institutions should establish a contract system to require those promoted faculty members who have used the financial support program to pursue doctoral degrees to stay with the institutions.

Nonetheless, as the turnover rate of faculty with an academic rank of assistant professor or above becomes an expensive problem for Taiwan's vocational institutions, this situation deserves the attention of the Ministry of Education. Taiwan's higher education system is centralized. Not only public but also private institutions receive financial subsidies from the government. Moreover, the Ministry of Education regulates the tuition rate of both public and private institutions. Research-oriented universities have advantages over vocational institutions in terms of receiving more financial aid from the Ministry of Education. Because of strong governmental support, research-oriented universities have stronger reputations, cheaper tuition rates, better research and teaching facilities, and thus are attractive to faculty and students. The centralized management and the unfair appropriations from the Ministry of Education among universities and institutes of technology have induced those faculty members with professorships in vocational institutions to become job hoppers. Some faculty members with professorships may change their jobs very frequently because there are job openings waiting for them nationwide. The situation might become worse because the results of this study showed that Taiwan's faculty members operated primarily from the continuance commitment. This means that Taiwan's faculty members in vocational

institutions engage in school activities based on their perception of the profit associated with continued participation or loss associated with leaving. In an effort to possibly increase the stability of faculty members in vocational institutions, Taiwan's education authorities should rethink the impact of the centralized management and the imbalanced appropriations and resources on universities and vocational institutions.

<u>Recommendations for Research</u>

Based on the delimitations of this study and analysis of the data, the following recommendations are made for further study:

First, the data used in this study were collected from five institutes of technology in the Mid-Taiwan area. Replication of this study with a larger sample, especially a national sample in Taiwan, is recommended.

Second, replication of this study focusing on the differences among faculty from public/private and universities/institutes of technology is recommended. It would be interesting to see whether the same factors have an impact on faculty job satisfaction and organizational commitment when comparing public to private institutions and universities to institutes of technology.

Third, results of this study indicated that there were some relationships between job satisfaction and the three components of organizational commitment. Further research to determine the particular elements of intrinsic and extrinsic job satisfaction that affect faculty members' commitment to the organization is recommended.

Fourth, some research suggests that organizations' Human Resource Management (HRM) practices may influence employees' commitment (e.g,; Gaertner & Nollen, 1989;

Ogilvie, 1986). Further research to examine the link between employees' perceptions of their institutions' HRM practices, such as fairness of promotion, comparability of fringe benefits, and level of pay, is recommended.

Finally, a more complex study would need to focus on identifying the antecedents to each of the components of organizational commitment from a variety of categories, such as personal characteristics, work experiences, job characteristics, and organizational factors.

<u>Conclusion</u>

The initial impetus for this study came from research suggesting that employees' organizational commitment is related to productivity or work quality or both (Porter et al., 1974; Wiener & Vardi, 1980). Williams' and Hazer's (1986) causal model of the antecedents of organizational commitment indicated that job satisfaction was a determinant of organizational commitment. The statistical analyses of this study support the model by Williams and Hazer of job satisfaction as a determinant of organizational commitment. An awareness of Taiwan's faculty members' job satisfaction and organizational commitment may (a) broaden our understanding of faculty members in Taiwan's higher education institutions, (b) help faculty members cope with role expectations and adjust their patterns of commitment, and (c) provide an awareness for administrators about how to enhance faculty members' levels of job satisfaction and organizational commitment.

Commitments have different forms. Organizational commitment has been portrayed in at least three conceptually different manners by viewing commitment as a

psychological state. These views are generally referred to as (a) affective commitment, which is referred to as individual/organizational goal congruence; (b) continuance commitment, which is based on the exchange approach; and (c) normative commitment, which is a function of morality and norms (Meyer & Allen, 1997). By understanding how commitments develop and how they help shape attitudes and behaviors, organizations may be in a better position to anticipate the impact that administrative policies have on faculty and staff and to manage change more effectively.

In Taiwan's rapidly changing and highly competitive environment, Taiwan's higher education institutions find themselves always scrambling for competitive advantages. A stable and predictable faculty work force represents a valuable resource for Taiwan's institutes of technology. Research regarding faculty work attitudes, such as job satisfaction and organizational commitment, is an important consideration for such institutes. In order to survive in Taiwan's competitive higher education environment, each institute should begin with strategic thinking and planning to increase the membership of their organizations and find ways to retain membership over time.

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Appendices

R.O.C. (Taiwan) Educational System

age	First Path General Educational System	Second Path Vocational Education System	Third Path Lifelong Learning

23 & up — Doctoral Program | Doctoral Program

Master Program | Master Program

21-22 — University | Two-Year Institute of Technology | Four-Year Institute/ University of Technology | Open University (beyond 18 yrs old) | Lifelong Learning & Continuing Education

19-20 — Two-Year College

* Supplementary Schools
* Special Education
* Open University

16-18 — Middle School (7th-12th grade) | Normal Senior High School | Comprehensive High School (General & Vocational courses) | Five-Year Junior College | Vocational High School

Application   Special Selection   Academic Performance Test

13-15 — Junior High School

7-12 — Elementary School (35 students/class)

4-6 — Kindergarden (attented rate 80%)

111

Appendix B – IRB Approval

Nebraska

University of

Medical Center

NEBRASKA'S HEALTH SCIENCE CENTER
A Partner with Nebraska Health System

Institutional Review Board (IRB)
Office of Regulatory Affairs (ORA)

February 21, 2003

Yu-Ching Huang
10615 Ellison Plaza #5
Omaha, NE 68134-1140

IRB#: 068-03-EX

TITLE OF PROTOCOL: The Relationship of Job Satisfaction and Organizational Commitment among Faculty at Taiwan's Higher Education Institutions

Dear Ms. Huang:

The IRB has reviewed your Exemption Form for the above-titled research project. According to the information provided, this project is exempt under 45 CFR 46:101b, category _2_. You are therefore authorized to begin the research.

It is understood this project will be conducted in full accordance with all applicable sections of the IRB Guidelines. It is also understood that the IRB will be immediately notified of any proposed changes that may affect the exempt status of your research project.

Please be advised that the IRB has a maximum protocol approval period of three years from the original date of approval and release. If this study continues beyond the three year approval period, the project must be resubmitted in order to maintain an active approval status.

Sincerely,

Ernest Prentice, PhD / gdk

Ernest D. Prentice, Ph.D.
Co-Chair, IRB

EDP/gdk

Appendix C – Survey Letter to Faculty

Hsiuping Institute of Technology

No. 11, Gungye Road, Dali City, Taichung, Taiwan 412, R.O.C.
TEL: 886-4-24961100   FAX: 886-4-24961187   http://www.hit.edu.tw

IRB # 068-03-EX

March 2003

Dear Participant:

The purpose of this project is to learn more about how faculty feel about their jobs and about the institution for which they work. Each faculty member is an important part of a school. Your participation will provide information to current school leaders in redesigning the workplace. This study is being conducted as part of a doctoral dissertation research project. Your participation in this project is TOTALLY VOLUNTARY. If you participate, please be assured that ONLY I WILL SEE YOUR INDIVIDUAL RESPONSES. No person else will ever be allowed to see any of this information. The four-digit code on the final page is for tracking respondents and non-respondents only. The four-digit sticker will be removed by the researcher upon receipt of the survey. Your choice to participate in this study will never affect your employment or affiliation with the institution where you currently work.

You will be asked to provide some background information about yourself and to give your opinion on a variety of statements. There are no right or wrong answers to the questions or statements in this survey. Remember, the value of this project depends on how honest you are in responding to the statements or questions. Both positive and negative reactions are of value. The important thing is what you feel to be the most accurate response for you personally. Please complete all of the questions. This study will require approximately 15 minutes.

THANK YOU FOR PARTICIPATING. If you have any comments or suggestions to make regarding this project, please feel free to contact me.

Sincerely,

Yu-Ching Huang

For more information, please contact:
Yu-Ching Huang
yuchinghuang@mail.unomaha.edu

修平技術學院

台中縣大里市工業路 11 號
電話: (04) 24961100　　傳真: (04) 24961187

IRB # 068-03-EX

親愛的教育先進：

　　首先要感謝您在百忙之餘，撥空來填寫此問卷。您對此問卷之填答將對本人的研究有相當地幫助。

　　本問卷調查的目的在於瞭解大學校院教師對於目前工作滿意之狀況、組織認同度、以及不同因子對於理想工作條件的認知，和組織認同度之差異性。本問卷共分為三部份：第一部份為目前工作滿意狀況之量表；第二部份為教師組織認同度之量表；第三部份為教師基本資料。

　　參與填寫此問卷是採自願性的。此問卷將以匿名方式來處理，不會對外公開。問卷最後一頁所附的貼紙，是為了寄發提醒信函給未回函的教師之用。本人保證，您所填之問卷內容將完全保密，並且無個人之姓名或服務學校名稱會在此研究中識別。

　　此問卷之填答時間約為１５分鐘。請詳閱各問題後，依據個人之看法安心作答。

　　謝謝您的協助與配合。

<div align="right">

美國內布拉斯加大學奧馬哈分校

教育行政與督導博士班候選人

黃玉菁　敬啟

</div>

假使您對此研究有任何疑問，抑或對研究結果有興趣，敬請利用以下電子信箱不吝指教： fishkt@yahoo.com.tw

Appendix D

Survey Instrument: Demographics

Part III. Demographics

Please fill in the appropriate response for demographic items 1-6.

(1)	Your gender（性別）：
	□ Male（男） □ Female（女）
(2)	Your age（年齡）： (your next birthday)
	_____ years old（歲）
(3)	Your marital status（婚姻狀況）：
	□ Single（單身） □ Married（已婚）
(4)	Your current academic title and/or rank（職級）：
	□ Professor（教授） □ Associate Professor（副教授） □ Assistant Professor（助理教授） □ Instructor（講師） □ Teaching Assistant（助教）
(5)	Number of years you have been employed at this institution（年資）：
	_____ year (s)（年）

(6)	Your current administrative position（行政職稱）:
	□ Top Administrator（一級主管） □ Secondary Level Administrator（二級主管） □ Administrative Assistant（行政教師） □ None（目前無兼任行政工作） □ Other (please indicate your administrative title _____) （其他(請註明)_____ ）

—◆◆◆——◆◆◆——◆◆◆—

Appendix E

Survey Instrument: The Faculty Job Satisfaction Survey

Part I. Faculty Job Satisfaction Survey

<u>Instructions:</u>
The following instrument contains 22 statements. Each question represents an individual's level of satisfaction about different aspects of the particular organization for which he/she works. Please indicate the degree of your agreement or disagreement by circling a number to the right of each statement.

Circle 1 if you strongly disagree
Circle 2 if you disagree
Circle 3 if you neither disagree nor agree
Circle 4 if you agree
Circle 5 if you strongly agree

		<u>Statements</u>	<u>Level of Agreement</u>
(1)		My present salary is compatible with my workload. (compensation) 就我的工作量而言，我有合理的薪資待遇。	1　2　3　4　5
(2)		My position at this institution is secure. (security) 我在這個學校的職位很有保障。	1　2　3　4　5
(3)		The administration makes appropriate decisions. (school administration & practices) 學校的行政單位總是能做出適當的決策。	1　2　3　4　5
(4)		The administration is efficient in execution of the decisions. (school administration & practices) 學校的行政單位在執行決策上很有效率。	1　2　3　4　5
(5)		I enjoy my colleagues. (co-workers) 我和學校同事間有良好的關係。	1　2　3　4　5

(6)	The learning environment and instructional facilities make the teaching and learning processes easier. (working condition) 我任職的學校擁有良好的教學資源與學習環境， 使教學與學習過程很順利。	1	2	3	4	5

(7)	My supervisor handles his/her employees in a fair matter. (supervision) 我的上司對待下屬很公平。	1	2	3	4	5

(8)	My institution offers adequate fringe benefit programs. (benefit programs) 我任職的學校提供良好的教師福利制度。	1	2	3	4	5

(9)	I have academic autonomy. (autonomy) 學校尊重教師專業自主性。	1	2	3	4	5

(10)	I feel tension because I need to perform the duties of teaching, research, service, and/or administration simultaneously as a faculty member. (R) (role conflict) 在技術學院任教職者常常需要同時從事教學、研 究、服務(例如導師工作)、甚至行政工作，這讓 我覺得有很大的精神壓力。	1	2	3	4	5

(11)	I get recognition for my accomplishments. (recognition) 在我工作上有良好表現時，會獲得適當的讚賞與 肯定。	1	2	3	4	5

(12)	Being a faculty member in higher education is an honorable career and gets respect from the society. (status) 在大專院校任教職有崇高的社會地位並得到尊 重。	1	2	3	4	5

(13)	Being a faculty member in higher education gives me opportunities and time to pursue developmental activities. (advancement) 在大專院校任教職使我有追求自我成長的機會。	1	2	3	4	5
(14)	I am often bored with my job. (R) (challenge) 我時常覺得當老師是一個無聊的工作。	1	2	3	4	5
(15)	My ability and skill are put to use in my teaching. (ability utilization) 我在教學工作上有機會發揮自己的專長與能力。	1	2	3	4	5
(16)	My ability and skill are put to use in my research. (ability utilization) 我在研究工作上有機會發揮自己的專長與能力。	1	2	3	4	5
(17)	I experience a work-family conflict because I am required to put in long hours in order to complete job-related tasks. (R) (role conflict) 因為我需要花很多時間在我的工作上，這讓我面臨工作與家庭無法兼顧的煩惱。	1	2	3	4	5
(18)	In general, I dislike the current work conditions. (R) (working condition) 一般來說，我不太喜歡目前的工作環境。	1	2	3	4	5
(19)	I feel good about my students' academic performance. (achievement) 當我看到學生的學習表現與成就，我會覺得很欣慰。	1	2	3	4	5
(20)	I feel that my teaching is very meaningful. (task significance) 我覺得教學是很有意義的工作。	1	2	3	4	5
(21)	I feel a sense of pride in doing my job. (pride) 我對從事目前的工作感到很驕傲。	1	2	3	4	5

| (22) | Overall, I am satisfied with my job. 整體來說，我滿意目前的工作。 | 1 | 2 | 3 | 4 | 5 |

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*References:

Herzberg, F., Mausner, B. & Snyderman, B. B. (1959). The motivation to work. New York: John Wiley & Sons.

Appendix F

Survey Instrument: Organizational Commitment Scale

Part II. Organizational Commitment Scale
(Adapted from Allen & Meyer, 1990)

Instructions:

Listed below is a series of statements that represent feelings that an individual might have about an institution of which they work. With the respect to your own feelings about the particular organization for which you work, please indicate the degree of your agreement or disagreement by circling the appropriate number in the right of each sentence.

Circle 1 if you strongly disagree

Circle 2 if you disagree

Circle 3 if you neither disagree nor agree

Circle 4 if you agree

Circle 5 if you strongly agree

	Statements	Level of Agreement
(1)	I would be very happy to spend the rest of my career with this institution. 在未來的職業生涯，我非常樂意繼續在這個學校服務。	1　2　3　4　5
(2)	I enjoy discussing my institution with people outside it. 我非常樂意跟校外人仕討論有關我學校的事情。	1　2　3　4　5
(3)	I really feel as if this institution's problems are my own. 我覺得學校的問題就是我自己的問題。	1　2　3　4　5
(4)	I think that I could easily become as attached to another institution as I am to this one. (R) 我想我可以很輕易的融入其他學校，就像融入這個學校一樣。	1　2　3　4　5

(5)	I do not feel like "part of the family" at my institution. (R) 在我任職的學校，我不覺得我是這個大家庭的一份子。	1	2	3	4	5
(6)	I do not feel "emotionally attached" to this institution. (R) 我不覺得我對我所任職的學校有很深的感情。	1	2	3	4	5
(7)	This institution has a great deal of personal meaning for me. 這個學校對我個人來說，有很大的意義。	1	2	3	4	5
(8)	I do not feel a strong sense of belonging to my institution. (R) 對這個學校，我沒有很強烈的歸屬感。	1	2	3	4	5
(9)	I am afraid of what might happen if I quit my job without another one lined up. 如果在我還沒有找到其他的工作前，就辭去我現有的工作，我會很擔心。	1	2	3	4	5
(10)	It would be very hard for me to leave my institution right now, even if I wanted to. 要離開目前我工作的這個學校是個很困難的決定，即使我很想要離開。	1	2	3	4	5
(11)	Too much in my life would be disrupted if I decided I wanted to leave my institution now. 如果現在決定離開這個學校，我的生活將陷入混亂。	1	2	3	4	5
(12)	It would not be too costly for me to leave my institution now. (R) 現在離開這個學校，對我個人來說，並不會有太大的損失。	1	2	3	4	5

(13)	Right now, staying with my institution is a matter of necessity as much as desire. 目前留任在我的學校，不只是必須的，而且也是我 想要的抉擇。	1	2	3	4	5
(14)	I feel that I have too few options to consider leaving this institution. 我並沒有太多選擇的餘地去考慮離開現在任職的學 校。	1	2	3	4	5
(15)	One of the few serious consequences of leaving this institution would be the scarcity of available alternatives. 工作機會的稀少是幾個離職後可能遭遇的負面結果 之一。	1	2	3	4	5
(16)	One of the major reasons I continue to work for this institution is that leaving would require considerable personal sacrifice. 我繼續留任在這個學校主因之一，是離開這個學校 將導致我個人損失。	1	2	3	4	5
(17)	I think that people these days move from one organization to another organization too often. 我認為近年來人們換工作的次數實在太頻繁了。	1	2	3	4	5
(18)	I do not believe that a person must always be loyal to his or her organization. (R) 我不認為每個人都應該要在自己的工作單位服務終 身。	1	2	3	4	5
(19)	Jumping from organization to organization does not seem at all unethical to me. (R) 跳槽對我個人來說，一點也無關於違背工作倫理。	1	2	3	4	5

(20)	One of the major reasons I continue to work for this institution is that I believe that loyalty is important and therefore feel a sense of moral obligation to remain. 我繼續留任在這個學校主因之一就是我相信忠於自己的組織是很重要的。因此，我覺得在道德上我有義務繼續留任在我的學校。	1 2 3 4 5
(21)	If I got another offer for a better job elsewhere I would not feel it was right to leave my organization. 即使我有更好的工作機會，我也不覺得離開這個學校是對的。	1 2 3 4 5
(22)	I was taught to believe in the value of remaining loyal to one organization. 我所受的教育讓我有在一個工作組織終身服務的觀念。	1 2 3 4 5
(23)	Things were better in the days when people stayed with one organization for most of their careers. 如果每個人都能在同一個單位組織服務終生，許多事情都變得好多了。	1 2 3 4 5
(24)	I do not think that wanting to be a "company man/woman" is sensible anymore. (R) 我再也不認為成為組織的一份子是具有任何意義的。	1 2 3 4 5

*References:

Allen, N. J., & Meyer, J.P. (1990). The measurement and antecedents of affective, continuance and normative commitment to the organization. Journal of Occupational Psychology, 63, 1-18.

Appendix G

Survey Permission Letter

Dear Janice,
You are welcome to use our commitment measures in your research. There
is no charge if they are being used for research purposes only. I have
attached a copy of a recent meta-analysis of studies using the measures.
I hope you find it of some help. Good luck with your research.
Best Regards,
John Meyer

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Appendix H

Monthly Salary in Taiwan's Higher Education

Level of Position / Level		Salary / Month	Academic Research Subsidy (from The Ministry of Education)
	770	$49,965 (US$1,448)	
	740	$49,335 (US$1,430)	
	710	$48,710 (US$1,412)	
Level 1	680	$46,830 (US$1,357)	
Level 2	650	$45,575 (US$1,321)	
Level 3	625	$44,320 (US$1,285)	
Level 4	600	$43,065 (US$1,248)	
Level 5	575	$41,815 (US$1,212)	
Level 6	550	$40,560 (US$1,176)	
Level 7	525	$39,305 (US$1,139)	
Level 8	500	$38,050 (US$1,103)	
Level 9	475	$36,795 (US$1,067)	
Level 10	450	$34,290 (US$994)	
Level 11	430	$33,350 (US$967)	
Level 12	410	$32,410 (US$939)	
Level 13	390	$31,470 (US$912)	
Level 14	370	$30,525 (US$885)	
Level 15	350	$29,585 (US$858)	
Level 16	330	$28,645 (US$830)	
Level 17	310	$27,705 (US$803)	
Level 18	290	$26,765 (US$776)	
Level 19	275	$25,825 (US$749)	
Level 20	260	$24,885 (US$721)	
Level 21	245	$23,945 (US$694)	
Level 22	230	$23,005 (US$669)	
Level 23	220	$22,375 (US$649)	
Level 24	210	$21,750 (US$630)	
Level 25	200	$21,120 (US$612)	
Level 26	190	$20,495 (US$594)	
Level 27	180	$19,870 (US$576)	
Level 28	170	$19,240 (US$558)	
Level 29	160	$18,615 (US$540)	
Level 30	150	$17,985 (US$521)	
Level 31	140	$17,360 (US$503)	
Level 32	130	$16,735 (US$485)	
Level 33	120	$16,105 (US$469)	

Academic Research Subsidy brackets (from The Ministry of Education):

- $52,270 (US$1,515) — President & Full Professor (levels 3, 2, 1; 770; range 680 – 475; 680 – 475)
- $43,360 (US$1,257) — Associate Professor (4, 3, 2, 1; 710; range 600 – 390)
- $37,825 (US$1,096) — Assistant Professor (6, 5, 4, 3, 2, 1; 650; range 500 – 310, Doctorates from 330)
- $29,655 (US$860) — Instructor (7, 6, 5, 4, 3, 2, 1; 625; range 450 – 245, Masters from 245)
- $21,330 (US$618) — Teaching Assistant (6, 5, 4, 3, 2, 1; 450; range 330 – 200)

Additional Income / Credit Hour

Position	Full Professor	Associate Professor	Assistant Professor	Instructor
Basic Required Credit Hrs /Week	9	10	11	12
Additional Income/Hour (Day School)	$795 (US$23.04)	$685 (US$19.86)	$630 (US$18.26)	$575 (US$16.67)
Additional Income/Hour (Evening School)	$800 (US$23.19)	$690 (US$20.00)	$635 (US$18.41)	$580 (US$16.81)
Additional Income/Hour (Weekend School)	$800 (US$23.19)	$690 (US$20.00)	$635 (US$18.41)	$580 (US$16.81)

1USD=34.5TWD

依據台(90)人(一)字第 90144062 號 90.11.07

Adapted from the Personnel Office of Hsiuping Institute of Technology
By: Yu-Ching Huang
Aug. 28th, 2003