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JOB SATISFACTION AMONG FACULTY MEMBERS  
AT YARMOUK UNIVERSITY, JORDAN

DISSERTATION

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This study measured and analyzed job satisfaction among faculty members at Yarmouk University in relation to gender, marital status, age, annual salary, years of experience, academic rank, academic activity, faculty affiliation, country in which the last degree was received, tenure status, and nationality. The population consisted of 350 full-time faculty members. A total of 216 (61.7%) faculty members participated in this study. The data collecting instruments consisted of the faculty data sheet and the Job Descriptive Index. Frequencies, percentages, means, and one-way analysis of variance (ANOVA) were employed to analyze the data. The level of significance was set at 0.05. A Scheffe method of multiple comparison was used for follow-up investigation.

Although the results of the study indicate that there were no significant differences in job satisfaction among faculty members with regard to gender, marital status, academic activity, and the country in which the faculty member received the last degree, significant differences were found with regard to age, annual salary, nationality, years of experience, rank, tenure status, and faculty affiliation.

The major source of satisfaction for faculty members at Yarmouk University was work in present job, and the source of the least satisfaction was opportunities for promotion. In addition, tenured professors over 45 years of age with an annual salary of more than JD6000 and with more than 10 years of experience were the most satisfied. Among the major finding which warrant additional study are that Arabic and alien faculty members were more satisfied with annual salary than Jordanian, and Arabic faculty members were more satisfied than alien faculty members. Of the nationalities, Jordanian faculty members were the least satisfied.

TABLE OF CONTENTS

	Page
LIST OF TABLES . . . . .	V
Chapter	
I. INTRODUCTION . . . . .	.1
Statement of the Problem	
Purpose of the Study	
Research Questions	
Definition of Terms	
Delimitation of the Study	
Background and Significance of the study	
Summary	
Chapter Bibliography	
II. REVIEW OF THE RELATED LITERATURE . . . . .	18
Definition and Measurement of	
Job Satisfaction	
Theories of Motivation	
Job Satisfaction Research in Higher Education	
Summary	
Chapter Bibliography	
III. METHODOLOGY . . . . .	.52
Data Collecting Instruments	
Population	
Procedures for the Collection of Data	
Analysis and treatment of Data	
Summary	
Chapter Bibliography	
IV. ANALYSIS OF DATA . . . . .	60
Gender and Job Satisfaction	
Marital Status and Job Satisfaction	
Age and Job Satisfaction	
Annual Salary and Job Satisfaction	
Years of Experience and Job Satisfaction	
Academic Rank and Job Satisfaction	

Faculty Affiliation and Job Satisfaction  
Country Awarding last Degree and  
Job Satisfaction  
Faculty Tenure Status and  
Job Satisfaction  
Nationality and Job Satisfaction  
Summary

V. SUMMARY, FINDINGS, DISCUSSION, CONCLUSIONS,  
AND RECOMMENDATIONS FOR FUTURE RESEARCH. . . .89

Summary  
Findings  
Discussion  
Conclusions  
Recommendations for Future Research  
Chapter Bibliography

APPENDIX A. . . . . 101  
APPENDIX B. . . . . 103  
APPENDIX C. . . . . 111  
APPENDIX D. . . . . 113  
BIBLIOGRAPHY. . . . . 115

## LIST OF TABLES

Table	Page
I. Distribution of Faculty Members by Faculty Affiliation. . . . .	55
II. Number of Useable Questionnaires From Each Faculty and Their Rate of Return . . . .	56
III. Numbers and Percentages of Usable Responses from Faculty Members for all Demographic Variables. . . . .	61
IV. Differences in Job Satisfaction Based on Gender (One-Way ANOVA). . . . .	62
V. Differences in Job Satisfaction Based on Marital Status (One-Way ANOVA). . . . .	63
VI. Differences in Job Satisfaction Based on Age (One-Way ANOVA). . . . .	65
VII. Differences in Job Satisfaction Based on Work in Present Job by Age (Scheffe Test). . . . .	66
VIII. Differences in Job Satisfaction Based on Present Pay by Age (Scheffe Test) . . . .	66
IX. Differences in Job Satisfaction Based on Annual Salary (One-Way ANOVA). . . . .	67
X. Differences in Job Satisfaction Based on Opportunities for Promotion by Annual Salary (Tukey Test) . . . . .	68
XI. Differences in Job Satisfaction Based on Supervision by Annual Salary (Tukey Test). .	69
XII. Differences in Job Satisfaction Based on Coworkers by Annual Salary (Tukey Test). . .	70
XIII. Difference on Job Satisfaction Based on Years of Experience (One-Way ANOVA). . .	71

XIV.	Differences in Job Satisfaction Based on Present Pay by Years of Experience (Scheffe Test). . . . .	.72
XV.	Differences in Job Satisfaction Based on Supervision by Years of Experience (Scheffe Test). . . . .	.73
XVI.	Differences in Job Satisfaction Based on Job in General by Years of Experience (Scheffe Test). . . . .	.73
XVII.	Differences in Job Satisfaction Based on Academic Rank (One-Way ANOVA). . . . .	.74
XVIII.	Differences in Job Satisfaction Based on Supervision by Academic Rank (Scheffe Test)..	.75
XIX.	Differences in Job Satisfaction Based on Academic Activity (One-Way ANOVA). . . . .	.76
XX.	Differences in Job Satisfaction Based on Faculty Affiliation (One-Way ANOVA). . . . .	.78
XXI.	Differences in Job Satisfaction Based on Coworkers by Faculty Affiliation (Scheffe Test). . . . .	.78
XXII.	Differences in Job Satisfaction Based on Country Awarded the Last Degree (One-Way ANOVA). . . . .	.80
XXIII.	Differences in Job Satisfaction Based on Tenure Status (One-Way ANOVA). . . . .	.81
XXIV.	Differences in Job Satisfaction Based on Nationality (One-Way ANOVA). . . . .	.82
XXV.	Differences in Job Satisfaction Based on Present Pay by Nationality (Scheffe Test). . . . .	.83
XXVI.	Differences in Job Satisfaction Based on Opportunities for Promotion by Nationality (Scheffe Test) . . . . .	.84
XXVII.	Differences in Job Satisfaction Based on Job in General by Nationality (Scheffe Test). . . . .	.84
XXVIII.	Mean Scores of Faculty Job Satisfaction Based on The Job Descriptive Index Subsections. . . . .	.85

## CHAPTER I

### INTRODUCTION

Job satisfaction has been one of the most frequently studied topics in the field of industrial and organizational psychology for several decades. During this period, however, few of these studies involved college and university faculty members. Neumann stated in 1978 that "while the concept of job satisfaction and its causes and effects have been studied in a great variety of business, industrial, and governmental settings, research in this area has been omitted by colleges and universities" (p. 261).

In recent years, more and more attention has been given to the subject of motivation and satisfaction or dissatisfaction among faculty members of educational institutions (Openshaw, 1980; Saidian, 1981; Ramsey, 1982; Willie, 1982; Griffin, 1983; Pearson 1983; Hutton and Jobe, 1985; Soroinelli and Near, 1986). This attention seems to be due to the growing importance that faculty members in higher education have in shaping the future of their society and their power in developing and carrying out the goals and objectives of higher education. It is also thought that satisfied educators seem to perform at higher levels than dissatisfied educators (Hoy, 1982). Furthermore, Hulin



(1986) found that any company could reduce its annual turnover rate by studying factors that produce dissatisfied employees and then changing its policies in the areas of the major sources of dissatisfaction.

Few studies concerning faculty members and their feelings about work and its environment have been conducted in developing countries. In Thailand studies were done by Cooparat (1978), Sudsawasd (1980), and Prachadetsuwet (1986). Studies were also done in Egypt by Sheha (1981), and in Saudi Arabia by Ageel (1982). However, little study concerning job satisfaction among faculty members has been conducted in Jordan. The Jordanian higher education system is a centralized one. The government controls financing and setting the objectives and goals of higher education institutions. The Jordanian government places major emphasis on the importance of education in the development of the country.

This study provides further data for Jordan as it is a survey of job satisfaction of faculty members at Yarmouk University. Yarmouk University was founded in 1976 to provide Jordan with the trained manpower required by the development plans of the government. In 1976 faculty members numbered 51; and today, there are more than 350 faculty members.

Yarmouk University is a multi-purpose institution for higher education located in the northern region of the country. The academic structure is adopted from the United States university system with course credits, lectures, seminars, research papers, and frequent exams. Many courses are taught in the English language; however, there are different nationalities among the faculty members working at this university.

One of the most important objectives of the universities in Jordan today is to "study the problems of society and subject them to research in an attempt to solve them and give guidance and advice toward the development of society" (Yarmouk, 1985, p. 3). This study then should provide a profile for the administrators at Yarmouk University to better understand the feelings of faculty members about their work as well as give administrators data for improving the work environment.

#### Statement of the Problem

The problem of this study is the job satisfaction of faculty members at Yarmouk University in the country of Jordan.

### Purpose of the Study

The major purpose of this study is to measure and to analyze the job satisfaction of the faculty members at Yarmouk University in Jordan. In order to achieve this purpose, this study attempts to

1. Compare overall levels of perceived job satisfaction of faculty members according to demographic variables; and
2. Compare the levels of perceived job satisfaction of faculty members with each of the subsections of the Job Descriptive Index (JDI, as revised by P. C. Smith, 1985).

### Research Questions

Based on the purposes of this study, the following research questions were developed.

1. Is there a significant difference in job satisfaction on each subsection of the Job Descriptive Index (JDI) among faculty members with regard to gender?
2. Is there a significant difference in job satisfaction on each subsection of the JDI among faculty members with regard to marital status?
3. Is there a significant difference in job satisfaction on each subsection of the JDI among faculty members with regard to age?
4. Is there a significant difference in job satisfaction on each subsection of the JDI among faculty members with regard to annual salary?

5. Is there a significant difference in job satisfaction on each subsection of the JDI among faculty members with regard to years of experience?

6. Is there a significant difference in job satisfaction on each subsection of the JDI among faculty members with regard to rank?

7. Is there a significant difference in job satisfaction on each subsection of the JDI among faculty members with regard to academic activity?

8. Is there a significant difference in job satisfaction on each subsection of the JDI among faculty members with regard to primary faculty affiliation?

9. Is there a significant difference in job satisfaction on each subsection of the JDI among faculty members with regard to the country in which the last degree was received?

10. Is there a significant difference in job satisfaction on each subsection of the JDI among faculty members with regard to faculty tenure status?

11. Is there a significant difference in job satisfaction on each subsection of the JDI among faculty members with regard to nationality?

### Definition of Terms

Faces of JDI. --The areas or subsections of the Job Descriptive Index. The JDI measures six areas of satisfaction: work on present job, present pay, opportunities for promotion, supervision, coworkers, and job in general (overall job satisfaction).

Job Satisfaction. --"The feelings a worker has about his job" (Smith, 1969, p. 6)

Faculty affiliations. --The disciplinary identification of faculty members. There are five faculties (or colleges) at Yarmouk University: the Faculty of Science, the Faculty of Art and Human and Social Sciences, the Faculty of Economic and Administrative Sciences, the Faculty of Engineering, and the Faculty of Medicine.

### Delimitations of the Study

This study was delimited to faculty members of Yarmouk University, male and female, with the rank of professor, associate professor, and assistant professor.

1. This study was also delimited to faculty members at the following faculties (colleges):

- a. Faculty of Science,
- b. Faculty of Art and Human and Social Sciences,
- c. Faculty of Economics and Administrative Sciences,
- d. Faculty of Engineering, and

e. Faculty of Medicine.

2. Because they belong to one of the major faculties (colleges) included in this study, faculty members at the following centers were excluded from this study:

- a. Language Center,
- b. Islamic Studies Center,
- c. Yarmouk Center for the Handicapped,
- d. Center for Hebraic Studies,
- e. Social Sciences Center,
- f. Center for Research and Educational Development,
- g. Energy Center, and
- h. Jordanian Studies Center.

3. This study is also delimited to faculty members who had at least one academic year of experience at Yarmouk University.

#### Background and Significance of the Study

The study of job satisfaction among faculty members in higher education is relatively new when compared to similar studies in business and industrial organizations. This could be because of a long-time assumption that faculty members are "indeed happy with their work and are growing happier as the years roll by" (Hill, 1983, p. 303). In the last twenty years, however, there have been a great number of studies concerning faculty members and their feelings

about their work and its environment, due to the "existence of high levels of stress and low levels of job satisfaction" (Pearson, 1983, p. 35).

Taylor (1967), in his study of "Institutional Environment Factors that Affect Junior College Faculty Job Satisfaction in Selected Public Junior Colleges of Texas," found that the most important factors affecting faculty job satisfaction were administrative policies and practices. Factors such as physical plants, services, equipment and supplies, relations with colleagues, and financial matters were not significantly related to faculty job satisfaction.

Edmundson (1970) found that male instructors aged forty-five years or older with most of their work experience outside of educational jobs were generally more satisfied in community college teaching. He also found that factors which lead to dissatisfaction are excessive workload, daily preparation required, committee work, no time for study, and inadequate salaries.

Nancy Avankian (1971) found a strong positive correlation between achievement, recognition, the work itself, and job satisfaction of faculty members in higher education institutions. She also found that factors such as institutional policy and administration, salary, and interpersonal relations with administrators related significantly to job dissatisfaction. Manthe (1976) found

that the most significant factors which produced satisfaction among faculty members were recognition, the work itself, responsibility, achievement, and advancement.

In a study of job satisfaction among teachers in eight colleges and universities, Buxton (1971) indicated that age, academic rank, and salary were significantly related to job satisfaction. The variables found not to be significantly related to job satisfaction were sex, marital status, and social class origin. Perry (1977) concluded that demographic variables of sex, tenure, years of experience, and academic rank are significantly related to at least one of the five aspects of job satisfaction (achievement, recognition, the work itself, pay, and promotion) as measured by the Job Descriptive Index.

In a study of faculty satisfaction-dissatisfaction with the intrinsic and extrinsic job factors in Columbian universities, Velez (1972) found salaries, fringe benefits, and university administration policies to be the extrinsic factors significantly related to dissatisfaction among faculty members. Growth and advancement, the work itself, and recognition were the intrinsic factors related significantly to job satisfaction. In a similar study, "Job Satisfaction of Faculty Teaching in Higher Education: An Examination of Herzberg's Dual-Factor Theory and Porter's Need Satisfaction Research, Applied to Faculty Members in



Higher Education," Moxley (1977) found that intrinsic factors (achievement, recognition, work itself, responsibility, and advancement) produce job satisfaction. Hygiene factors (policies and practices, salary/budget, supervision-technical, and working conditions) were found to cause dissatisfaction.

Poosawtsee (1973) and Sprague (1974) found that sex is not related to job satisfaction among faculty members. Age and years of teaching experience were found to be strongly related to the level of job satisfaction. The more experienced the faculty member and the greater the age, the more satisfied he or she generally was found to be compared to younger faculty members. Tenure, rank, and salary correlated positively to satisfaction.

Keeple (1979) found no significant differences between the highest degree earned by faculty members and the level of job satisfaction. Also, he found that older faculty were more satisfied with their jobs than younger faculty. Tenured faculty were found to be more satisfied than untenured faculty, and those who had six years or more experience in their jobs were found to be more satisfied than those who had two years or less experience.

Ladd and Lipset's (1976a) survey indicated that younger American professors were less satisfied with their present institutions than older professors. Also, professors at

junior colleges typically show more attachment to their institutions than professors at the major research universities (two-thirds compared to one-half). Higher salary and tenure were found to be the most important factors for faculty to make a decision on moving to another institution.

In another study, Ladd and Lipset (1976b) asked professors what they liked best about their jobs. The answer was teaching, not research. Also, the majority of responding professors (74 percent) preferred teaching effectiveness, not publication, as the major criterion for motivation of faculty. It seems that faculty members in some very basic sense know that "the process of teaching has the potential for satisfying their most important needs" (Bass, 1977, p. 244).

In a study of Herzberg's motivation theory of job satisfaction as it relates to academic personnel in selected small liberal arts colleges, May (1978) found that the three most important factors for providing satisfying experience were the work itself, achievement, and interpersonal relations. The factors related to dissatisfaction for academic personnel were lack of achievement, policy and administration, lack of recognition, and personal life.

In a study of job satisfaction among faculty members of Thai universities, Sudsawasd (1980) found that the major

sources of job satisfaction were policy, administration, and salary. The major sources of dissatisfaction were achievement, growth, interpersonal relations, recognition, responsibility, supervision, the work itself, and working conditions. Also, this study indicated that faculty members with doctoral degrees were more satisfied with salary than faculty members who did not hold doctoral degrees. Furthermore, married faculty members were found to be dissatisfied with working conditions more often than single faculty members.

Locke (1983) found that faculty members were dissatisfied with the administration. Also, he found faculty members were dissatisfied with a reward system which is heavily influenced by upper level administrators. Neumann (1978) found that power perception (which reflects the nature of decision-making among administrators) was a strong determinant of job satisfaction among faculty members in the college of social sciences. On the other hand, this factor was considered less important in predicting job satisfaction among faculty members in the college of physical sciences.

It is important for higher education administrators at Yarmouk University as well as for administrators in the ministry of higher education to understand the perception of job satisfaction among faculty members at Yarmouk

University. An understanding of faculty members' feelings about their work could lead to improved faculty effectiveness in teaching, research, administration, and work environment.

This study provides a profile of faculty members who are satisfied and dissatisfied with their present work in different areas. This study will, therefore, help administrators at Yarmouk University in planning, making policies, or modifying policies that concern faculty members' development. In addition, this study will contribute to the literature of job satisfaction among faculty members in higher education.

#### Summary

Chapter I includes the introduction to the study, the statement of the problem, the purposes of the study, the research questions, the definition of terms, the delimitations of the study, and the background and significance of the study. Chapter II presents the synthesis of the literature related to this study. Chapter III describes the methodology employed in this study, the data collecting instrument, the population of the study, procedures for collection of the data, and analysis and treatment of the data. Chapter IV presents the data analysis and the findings based on the research questions. Chapter V presents the summary of the findings, the conclusions, and the recommendations for further research.

## CHAPTER BIBLIOGRAPHY

- Ageel, H. A. (1983). Job satisfaction of staff members of Umm Al-Qura University in Makkah (Doctoral Dissertation, Michigan State University, 1982). Dissertation Abstracts International, 43, 3836A.
- Avankian, N. A. (1971). An analysis of factors relating to the job satisfaction and dissatisfaction of faculty members in institutions of higher education (Doctoral Dissertation, State University of New York at Albany, 1971). Dissertation Abstracts International, 32, 1765A.
- Bass, J. L. (1977). The motivation to teach. Journal of Higher Education, 48, 243-258.
- Buxton, T. H. (1971). A study of job satisfaction of teachers of education in eight selected colleges and universities (Doctoral Dissertation, The University of Nebraska, 1971). Dissertation Abstracts International, 32, 749A.
- Cooparat, P. (1978). Interactions of dogmatism and selected variables upon job satisfaction of university professors in Thailand (Doctoral Dissertation, The University of Oklahoma, 1978). Dissertation Abstracts International, 39, 3253A.
- Edmundson, J. C. (1970). An identification of selected items associated with faculty job satisfaction in the North Carolina system of community colleges (Doctoral Dissertation, North Carolina State University at Raleigh, 1969). Dissertation Abstracts International, 30, 4753A.
- Griffin, M. E. (1983). Relationships between perceptions of collective bargaining, management style, and job satisfaction of mid-level administrators in Minnesota's community colleges (Doctoral Dissertation, University of Minnesota, 1982). Dissertation Abstracts International, 43, 3470A.
- Hill, M. D. (1983). Some factors affecting the job satisfaction of community college faculty in Pennsylvania. Community/Junior College Quarterly, 7, 303-317.

- Hoy, W. K., & Cecil, G. M. (1982). Educational administration: Theory, research and practice. New York: Random House, Inc.
- Hulin, C. L. (1986). Effects of changes in job satisfaction levels on employee turnover. Journal of Applied Psychology, 52, 123.
- Hutton, J. B., & Jobe, M. E. (1985). Job satisfaction of community college faculty. Community/Junior College Quarterly of Research and Practice, 9, 17-24.
- Keple, R. A. (1979). The relationship between selected status characteristics and job satisfaction of two-year college faculty (Doctoral Dissertation, American University, 1978). Dissertation Abstracts International, 39, 4890A.
- Ladd, E. c., & Lipset, S. M. (1976a). What do professors like most about their jobs? Chronicle of Higher Education, 12, 10.
- Ladd, E. C., & Lipset, S. M. (1976b). Nearly all professors are satisfied with their choice of an academic career. Chronicle of Higher Education, 12, 11.
- Locke, E. A., William, F., & White, F. M. (1983). Job satisfaction and role clarity among university and college faculty. The Review of Higher Education, 6, 343-365.
- Manthe, R. D. (1976). A job satisfaction and dissatisfaction study of the West Virginia university extension service (Doctoral Dissertation, The University of Wisconsin-Madison, 1976). Dissertation Abstracts International, 37, 3314A.
- May, B. R. (1978). A study of Herzberg's motivation hygiene theory of job satisfaction as it relates to academic personnel in selected small liberal art colleges (Doctoral Dissertation, University of Illinois at Urbana-Champaign, 1978). Dissertation Abstracts International, 39, 2816A.
- Moxley, L. S. (1977). Job satisfaction of faculty teaching higher in education: An examination of Herzberg's dual-factor theory and Porter's need satisfaction research. (ERIC Document Reproduction Service No. ED 139 349).
- Neumann, Y. (1978). Predicting faculty job satisfaction in university departments. Research in Higher Education, 9, 261-275.

- Openshaw, H. (1980). Job satisfaction determinants among faculty and administrators: An application of Herzberg's motivation-hygiene model in higher education (Doctoral Dissertation, Georgia State University, 1980). Dissertation Abstracts International, 41, 2470A.
- Pearson, D. A., & Seiler, R. E. (1983). Environmental satisfiers in academe. Higher Education, 12, 35-47.
- Perry, J. L. (1977). The interrelationship of job satisfaction and similarity in philosophic view within academic departments. Research in Higher Education, 7, 269-280.
- Poosawtsee, S. (1974). The relationship between preferred college environment and job satisfaction of public junior college faculty members of Minnesota (Doctoral Dissertation, University of Minnesota, 1973). Dissertation Abstracts International, 34, 6915A.
- Prachadetsuwet, N. (1986). An investigation into the sources of job satisfaction and dissatisfaction as perceived by faculty members and administrators in selected private higher education institutions in Thailand (Doctoral Dissertation, Northern Illinois University, 1985). Dissertation Abstracts International, 46, 1828A.
- Ramsey, J.K. (1982). Faculty perceptions of institutional quality and vitality. Jacksonville, FL: Florida Association of Community Colleges. (ERIC Document Reproduction Service No. ED 229 084).
- Saidian, M. (1981). A study of job satisfaction as measured by the Minnesota satisfaction questionnaire as applied to selected male and female vocational and technical teachers of Esfahan, Iran (Doctoral Dissertation, University of Kansas, 1980). Dissertation Abstracts International, 41, 4378A.
- Sheha, A. A. (1981). The relationship of faculty perceptions of the nature and bases of power to faculty satisfaction and productivity in an Egyptian university (Doctoral Dissertation, The Pennsylvania State University, 1981). Dissertation Abstracts International, 42, 2531A.
- Smith, P. C., Kendall, L. M., & Hulin, C. L. (1969). Measurement of satisfaction in work and retirement. Chicago: Rand McNally.

- Soroinelli , M. D., & Near, J. P. (1986). Relationships between work and life away among university faculty : Gender and rank effects. San Francisco, CA: Annual Meeting of the American Educational Research Association. (ERIC Document Reproduction Service No. ED 270 013)
- Sprague, B. O. (1974). Job satisfaction and university faculty. (Doctoral Dissertation, University of Kentucky, 1974). Dissertation Abstracts International, 35, 2018A.
- Sudsawasd, S. (1980). A study of factors measuring faculty job satisfaction at selected universities in Thailand (Doctoral Dissertation, Iowa State University, 1980). Dissertation Abstracts International, 41, 964A.
- Taylor, F. A. (1967). Institutional environment factors that affect junior college faculty job satisfaction in selected public junior colleges of Texas (Doctoral Dissertation, The University of Texas at Austin, 1967). Dissertation Abstracts International, 28, 3954A.
- Velez, G. (1972). A study of faculty satisfaction-dissatisfaction with the intrinsic and extrinsic job factors in Columbian universities (Doctoral Dissertation, The Florida State University, 1972). Dissertation Abstracts International, 33, 997A.
- Vroom, V. H. (1964). Work and motivation. New York: John Wiley & Sons, Inc.
- Willie, R., & Stecklein, J. E. (1982). A three decade comparison of college faculty characteristics, satisfaction, activities, and attitudes. Research in Higher Education, 16, 81-83.
- Yarmouk University. (1985). The birth of Yarmouk University. Irbed, Jordan: Department of Cultural and Public Relations.



## CHAPTER II

### REVIEW OF THE RELATED LITERATURE

Research related to the subject of job satisfaction begins with the "publication of Rethlisberger and Dickson's Management and the Worker and Hoppock's monograph on job satisfaction in the 1930s" (Locke, 1969, p. 309). Since the early 1930s, there have been an enormous number of studies concerning human motivation and employee satisfaction in industrial and other organizational settings (Gruneberg, 1976). It is estimated that more than 4000 studies have been conducted in this field applying different theories and instruments in testing the concept of job satisfaction, its nature and causes (O'Connor, 1978). This chapter therefore focuses only on the literature that is related to job satisfaction in three areas: (1) definition and measurement of job satisfaction, (2) theories of job satisfaction, and (3) job satisfaction research in higher education.

#### Definition and Measurement of Job Satisfaction

The first attempt to measure and define job satisfaction was made by Hoppock (1935). He viewed job satisfaction as the combination of any psychological, physiological, and environmental circumstances that cause an

employee to say, "I am satisfied" (Hoppock, 1935, p. 47). Herzberg and his associates defined job satisfaction as "one's overall attitude toward his job, whether he likes or dislikes it" (Herzberg, 1959, p. 5). Vroom (1964) defined job satisfaction as the effective orientations of an employee toward his/her work roles at a certain time. Locke (1969) defined job satisfaction as the "pleasurable emotional state resulting from the appraisal of one's job as achieving or facilitating the achievement of one's job values" (p. 316). Locke presented the concept of job satisfaction or dissatisfaction as a complex function of the perceived relationship between what one wants from the job he occupies and what one perceives it as offering or entailing.

Smith (1969) defined job satisfaction as the "feelings a worker has about his job" (p. 6). According to Smith, the definition of job satisfaction relates the worker's concept of the meaning of the word with the definition implied by research workers investigating the phenomena of satisfaction.

The different conceptual definitions of job satisfaction have led to measurement of job satisfaction in a number of ways (Wanous, 1972). However, since the early 1930's, there have been numerous instruments applied to measure job satisfaction in business, industrial, and other

behavioral organizations. Robinson (1969) listed 77 instruments used to measure job satisfaction, job attitudes, occupational values, leadership styles, occupational status, vocational interest, and other work-related attitudes.

O'Connor (1978) reported that 81 job satisfaction instruments were used in 155 studies between 1973 and 1975. These instruments were published in the five leading journals in psychology and business: Journal of Applied Psychology, Academy of Management Journal, Administrative Science Quarterly, Organizational Behavior and Human Performance, and Personnel Psychology. Furthermore, in reviewing those journals, O'Connor found there were 95 instruments used in 191 studies between 1976 and 1978.

The first instrument to be used for measuring job satisfaction was developed by Hoppock (1935). Hoppock's Index of Job Satisfaction consisted of 4 items, each with 7 responses at step intervals. The split-half reliability of Hoppock's Index was .93 (Robinson, 1969).

Brayfield (1951) developed an index of job satisfaction. This instrument had 18 Thurstone-Scaled items. The range of the scores a respondent could get was from 18 through 90 with a neutral point at 45. The answers to each item ranged from "strongly agree" to "strongly disagree." The neutral response was undecided. A correlation of .91 was obtained between the Brayfield index

of job satisfaction and Hoppock job satisfaction index (Brayfield, 1955).

The Job Descriptive Index was developed by P. C. Smith and her associates in 1959. This instrument was revised in 1975 and 1985. The latest revised edition measures six areas of job satisfaction: work in present job, present pay, opportunities for promotion, supervision, coworkers, and job in general (overall job satisfaction).

Porter's Needs Satisfaction Questionnaire (1961) is a fixed-response scale of job attitudes. Each item has two questions, one for "should be," the other one for "is now." Scoring each question is done by subtracting the numerical value of a respondent's choice on the "is now" part from the numerical value on the "should be" part. The less the difference, the more satisfied is the respondent with this aspect of the job. Overall job satisfaction was measured by summing the numerical score results in each item.

Weiss, De s, England, and Lofquist (1967) developed an instrument called the Minnesota Satisfaction Questionnaire. This instrument consists of 100 questions distributed in 20 facets. The employees are asked to indicate their feelings about each question on a five-point Likert scale ranging from very dissatisfied to very satisfied. This instrument has a short form consisting of 20 questions.

## Theories of Motivation

### Maslow's Hierarchy of Need Theory

Abraham Maslow's (1954) theory of need hierarchy contends that basic needs of humans fall into a hierarchy of importance. According to Maslow, individuals are motivated by the desire to fulfill particular needs, needs that are shared by all humans. The hierarchy of needs is as follows.

1. Physiological Needs. These include the lowest and the basic needs any human seeks, such as food, clothing, drink, sleep, etc.

2. Safety Needs. These needs are for physical or psychological security, such as avoidance of risks, absence of pain, illness, or any kind of threat.

3. Affiliation Needs. These needs are for social life, companionship, acceptance from others, love, and friendship.

4. Achievement and Esteem Needs. The need for a feeling of self-respect, achievement, and responsibility.

5. Self-Actualization Need. This is the highest and most difficult need to satisfy. Maslow defined this need as "the desire to become more and more what one is; to become everything one is capable of becoming" (Maslow, 1954, p. 92). This need includes the desire to be independent, creative, growing, and to develop one's own self. Maslow's theory suggests that any human has needs at any time, and

that these needs are satisfied in a hierarchical nature. "Only when a need lower in the hierarchy is fulfilled does the next higher one become psychologically real and move the person to seek gratification" (Sell, 1979, p. 83). As the lower level of needs is satisfied, needs at the next higher level become stronger. For example, when the physiological needs are highly satisfied, the desire to fulfill safety needs increases, as the desire to fulfill physiological needs decreases.

Maslow's theory contends that all levels of needs can be satisfied except the self-actualization needs, which cannot be satisfied completely. However, "to a greater or lesser degree we are always stirred up, agitated, inclined to activity by some degree of unsatisfied needs" (Hinrich, 1974, p. 44).

Porter (1962) studied perceived need fulfillment deficiencies in nearly 2000 managerial positions. Subjects represented all levels of management and a wide variety of companies. Based on Maslow's need theory, he found that self-actualization, autonomy, and esteem were the most critical areas of need fulfillment except at very high levels of management. In the next year, Porter (1963) conducted a similar study to test five areas of needs as presented in Maslow's theory. He also studied different levels of management and different types of companies. He

found that higher level managers placed more emphasis on self-actualization than did lower level managers, who emphasized the security needs.

Hall and Nougaim (1968) examined Maslow's need hierarchy theory by utilizing five years of data. The subjects were 49 young management-level employees of an operating company of the American Telephone and Telegraph Company. These managers were hired in 1957 and remained with the company during the five years of the study. The results of their study show no strong evidence to support Maslow's hierarchy of needs.

Lawler and Suttle (1972) criticized the hierarchy needs as presented by Maslow. Their findings suggested that needs exist in a two levels rather than in five levels, with the biological needs as the lower level any human seeks and all needs other than biological in the top level. French (1986) thinks that the "major implication of Maslow's theory for human resources management is that policies and practices in the organization, including leadership style, must pay attention to all of these needs if the organization hopes to have people working up to their full potential" (French, 1986, pp. 113-114).

### Herzberg's Two-Factor Theory

Herzberg, Mausner, and Snyderman (1959) developed a theory of job satisfaction called the Two-Factor or Hygiene-Motivation Theory. The basic assumption of this theory is that one set of factors produces job satisfaction and motivation among people, and another set of factors leads to job dissatisfaction. Herzberg and his associates (1959) tested their theory by interviewing in depth more than 200 engineers and accountants representing Pittsburgh companies. These interviews examined carefully sequences of events in the work of the respondents to determine which factors produced good feeling and happiness and which factors produced bad feeling and unhappiness.

According to Herzberg (1968), there are two sets of factors. Motivator factors which produce motivation and satisfaction are related directly to the nature of the work and its content (intrinsic). These factors include achievement, recognition, responsibility, advancement, the work itself, and the possibility of growth. The presence of content factors could lead to increased job satisfaction and motivation. On the other hand, their absence does not lead to dissatisfaction. The other set of factors producing dissatisfaction is called hygiene factors. While not related directly to the real nature of the work, they are related to the environment of the work and its context



(extrinsic). These factors include company policy and administration, salary, working conditions, job security, status, quality of technical supervision, and quality of interpersonal relation among peers and subordinates (Herzberg, 1966; Scott, 1976).

According to this theory, motivator factors were separate and distinct from the hygiene factors. The absence of one set of factors does not affect the other. The absence of hygiene factors would not necessarily lead to job satisfaction; on the other hand the absence of motivators would not lead to job dissatisfaction (Wood, 1976; Wren, 1979).

Much research had been done in testing the Two-Factor theory. Ewen et al. (1966), Lindsay (1967), Hinton (1968), Hulin and Smith (1967), Schwab, Devitt, and Cummings (1971), and Waters (1972) criticized this theory. They did not find evidence to support the basic hypothesis that motivation factors produce job satisfaction and these factors are separated from hygiene factors, which produce job dissatisfaction.

In testing the Two-Factor theory, Schwab and Heneman (1970) found that the analysis of responses of individuals failed to support the theory, although the aggregate results for a given response item did support the theory. In a similar study, Wofford (1971) found the same results and a little support for the Herzberg theory.

The result did show a statistically significant tendency for content factors to be listed as "good" experience and context factors as "bad" experience when viewed in terms of one item at a time. However when the response tendencies for each employee were considered, it was found that over half of the employees either listed a content factors as a "bad" experience or listed a context factors as a "good" experience. This does not support the position that "good" and "bad" experience (satisfaction and dissatisfaction) are unrelated factors. (Wofford, 1971, p. 516).

Openshaw (1980) and Ageel (1982) studied job satisfaction based on Herzberg's theory. Their findings were similar: motivation and hygiene factors were significantly greater indicators of job satisfaction than were motivation factors. On the other hand, the research of Sorgiovanni (1966), Halpern (1966), Wickstrom (1971), and Abreu (1980) supports the Two-Factor theory.

#### Expectancy Theory

Expectancy theory (Vroom, 1964) states that behavior of employees at work depends on their evaluation of a) the effort required for the work to be done, b) the desire for the outcome or rewards, and c) the value of the outcome to the employee. Vroom hypothesized that performance of individuals at work is the result of interaction between motivation and ability. Also the behavior of individuals is determined by three basic multiplicative (not additive) relationships of valence, instrumentation, and expectation.

According to Gibson (1976) and Hoy (1978), valence is dependent on the importance and attractiveness of work to the individual's feeling toward the reward he or she will get from the work. Instrumentation is dependent on the level of probability that a certain performance will lead to the desired reward or outcome. The expectation is the evaluation of the effort needed to accomplish the performance and the probability of achieving that performance.

Mitchell and Albright (1972) conducted a study to predict the effort, satisfaction, performance, and retention of two squadrons of naval aviation officers. They utilized the expectancy theory. The findings strongly supported prediction of satisfaction and retention. Moderate support was found for predicting effort and performance.

Wofford (1971) and Mitchell (1974) supported expectancy theory; and they provide evidence that the expectancy theory is good for understanding prediction of job satisfaction, motivation, and value of work performance. On the other hand, Pritchard (1973) found no support for the expectancy theory. In testing performance and pay among employees, he found no differences existed among employees in performance even when the levels of pay differed. Lawler and Suttle (1973) stated that the problem of this theory is that it "has exceeded the measures which exist to test it" (Lawler and Suttle, 1973, p. 502).

### Equity-Inequity Theory

Adams (1963) developed a theory of equity-inequity based on the assumption that employees are influenced by the reward system (pay, recognition, security, and other benefits) they get from their work. Employees do compare the effort (input) they invest in the workplace and the outcome (output) they get with others doing the same or similar work.

Adams defined the frame hypothesis of his theory as follows: "inequity exists for a person whenever his perceived job inputs and/or outcomes stand psychologically in an obverse relation to what he perceives are the inputs and/or outcomes of others" (Adams, 1963, p. 424). However, the individual feelings of equity or inequity could be influenced by social life, peers, and the individual's perceptions of Others (Steers and Porter, 1979).

According to Adams' theory (1963), if an employee does feels inequity, he or she will act to reduce inequity or to achieve equity. The employee then could take one of the following actions to reduce inequity:

1. Person may increase his inputs if they are low relative to Other's inputs and to his own outcomes.
2. Person may decrease his inputs if they are high relative to Other's input and his own outcomes.
3. Person may increase his outcomes if they are low relative to Other's outcomes and to his own input.
4. Person may decrease his outcomes they are high relative to Other's outcomes and to his own inputs.

5. Person may 'leave the field' when he experiences inequity of any type.

6. Person may psychologically distort his inputs and outcomes, increasing or decreasing them as required.

7. Person may increase, decrease, or distort the inputs and outcomes of Other's, or force Other to leave the field.

8. Person may change his referent Other when inequity exists. (Adams, 1963, pp. 427-429)

A number of studies have tested the equity-inequity theory. Studies by Lawler and O'Gara (1967), Andrews (1967), Lawler (1968), Goodman and Friedman (1971), Hinton (1972), and Goodman (1975) supported the theory. Pritchard (1970) tested the effects of perceptions of equity-inequity on worker performance and satisfaction. He found strong support for the equity-inequity theory. Finn and Lee (1972) tested equity theory with regard to pay among employees in a division of the Federal Public Health Service. They found support for the equity theory. However, their research emphasized the practical importance of attending to employees' perceptions of their salaries. Employees who felt inequity showed "greater dissonance, less favorable work-related attitudes" (Finn and Lee, 1972, p. 291)

Telly (1971) studied the relationship of inequity to turnover among hourly workers. Questionnaires were utilized with questions related to pay, supervision, leadman, security, advancement, working conditions, intrinsic aspects of the job, and social aspects of the job. The results supported the inequity theory. It was found that

perceptions of inequity were among the reasons for turnover. In a similar study, Dittrich and Carrell (1979) found that perceptions of inequity were related both to absenteeism and turnover.

#### Job Satisfaction Research in Higher Education

This section presents a review of the research that has been done in higher education institutions concerning job satisfaction of faculty members. One of the earliest studies was conducted by Edmundson (1970). He found that male faculty members of at least 45 years of age or older were more satisfied with their teaching careers than faculty members who were younger than 45 years old. Factors found to produce dissatisfaction were excessive work load, excessive daily preparation, excessive committee work, no time for study, and inadequate salaries.

Winkler (1982) conducted research concerning job satisfaction of university faculty members in the United States. The results showed that pay is the single factor which contributed most to faculty dissatisfaction. Relationship with coworkers was the factor which contributed most to faculty satisfaction. No significant differences in job satisfaction among faculty members with regard to their rank, age, or tenure status were found. Female faculty members were found to be less satisfied than male faculty members. However, the major sources of satisfaction for all

faculty members were autonomy, academic freedom, independence, and teaching and advising excellent students.

A Carnegie Foundation (1985) survey of faculty nationwide suggests that they are concerned about their current status and prospects for the future. This report presents a profile of the American professoriate with information drawn from a national survey of 5000 faculty members. Approximately 40 percent of all faculty members surveyed said they were less enthusiastic about their work now than when they began their academic careers. Twenty-seven percent of faculty members from four-year institutions feel the opportunities for advancement are limited, and they feel "trapped" in their profession. Almost 30 percent of faculty at two-year colleges were considering another profession, and 26 percent of faculty at four-year institutions were considering another profession.

When asked about morale in their departments, 40 percent of all faculty feel it is worse today than five years ago. Twenty percent of all faculty report that if they had the chance to choose again, they would not become college teachers. However, 52 percent of all faculty members indicated that they would consider another academic job if one were offered. Forty percent indicated they may leave the profession within the next five years. Salary was ranked by 60 percent as "poor" or "fair."

The Carnegie study concluded that faculty members in higher education institutions in the United States are deeply concerned about their security and salaries, and they are worried about the integrity of their institutions. They want to be satisfied by their work and with a job well done.

In an investigation of job satisfaction among faculty members at North Texas State University, Hashemi (1984) found that assistant professors who engaged in research activities had a higher perception of opportunities for promotion than did assistant professors in teaching only. The finding of this study indicated that younger, nontenured faculty members with 10 years of experience or less were more satisfied with opportunities for promotion than were older, tenured faculty members with more than 10 years of experience. No significant differences in job satisfaction between male and female faculty members were found.

Wozniak (1973) studied job satisfaction of music faculty members as related to selected variables. He found that overall satisfaction was not significantly related to the age, sex, level of education, or music-teaching experience. However, the major sources of satisfaction for the music faculty members were found to be achievement, work itself, recognition, responsibility, and interpersonal relations with their students. On the other hand, the major sources of dissatisfaction were found to be policy and administration, working conditions, and supervision.



A study concerning faculty members' satisfaction at vocational technical institutions was conducted by Novak (1975). He found that variables such as sex, nature of teaching preparation, age, and years of teaching experience were significantly associated with job satisfaction. Harshberger (1976) found significant differences in satisfaction among faculty members with regard to their age, rank, tenured status, and years of experience.

In a comparison of factors influencing job satisfaction and dissatisfaction of nursing faculty with faculty in other departments of selected private liberal arts colleges in the Midwest of the United States, Donahue (1979) found that liberal arts faculty were older, more experienced, and held higher academic rank than did nursing faculty members. However, both liberal arts and nursing faculty members perceived the intrinsic factors of achievement, work itself, and use of the best abilities as contributing to job satisfaction. The extrinsic factors of management policies and technical supervision were sources of dissatisfaction for both liberal arts and nursing faculty members. Promotion was the factor which contributed most to job dissatisfaction among liberal arts faculty members. Work group and employee benefits were the factors which contributed most to job satisfaction among nursing faculty members.

Harrington (1980) studied job satisfaction of selected university faculty. He found that sex and race do not affect job satisfaction. On the other hand, age, tenure status, and salary were found to affect job satisfaction. Sex was not found to affect the level of job satisfaction in studies done by Balazedeh (1981), Vattthaisong (1983), and Lacewell (1983). In other studies by Kposowa (1984), Hill (1983), and Hutton (1985), sex was found to affect the level of job satisfaction.

Grahn (1980) surveyed job satisfaction among general college faculty members at Minnesota universities. He found that moral values, social services, and activity are related strongly to job satisfaction. Advancement, compensation, and company organization and policies are related to job dissatisfaction. Male faculty members were more satisfied with advancement and security than female faculty members. However, female faculty members were found to be more satisfied with achievement, activity, authority, and social service than were male faculty members. This study suggested the following ways to improve faculty job satisfaction:

- 1) developing clear, relevant and practical guidelines for promotion and tenure, and presenting them in a persuasive manner; 2) encouraging increased communication between administration and faculty regarding the rationale behind certain administrative policies and practices; 3) establishing a program for on-going development of administrative personnel; 4) identifying meaningful, nonmonetary rewards and

utilizing them when and where appropriate; 5) mobilizing an effort to educate the college's various publics, such as the legislature, regarding General College salary levels. (Grahn, 1980, p. 17)

In a study of faculty attitudes toward teaching, Goldstine (1977), found that faculty members emphasized the importance of spending more time on undergraduate and graduate teaching. Research came second after teaching in importance, even though they felt research was the most important factor in their department as a criterion for making decisions about salary increases and promotions. Junior faculty (84%) favored promoting "outstanding" teachers "even if they do very little or no research." These faculty members felt that teaching is a very important function of a university, and that teaching and research are both important.

Lock, Fitzpatrick, and, White (1983) studied job satisfaction among faculty members nationwide. This study was based on a 150-item questionnaire. The questionnaires were distributed to 1402 faculty members at major state universities and 207 faculty members from community colleges. Questionnaires returned from the university sample (N=427) included 15 chairs, 130 professors, 127 associate professors, 118 assistant professors, 23 lecturers, and 14 who did not reveal their rank. The community college sample return (N=71) included 2 chairs, 14

professors, 27 associate professors, 18 assistant professors, 4 lecturers, and 6 who did not reveal their rank.

The major finding of this study was that faculty members are satisfied to the degree that they get what they want from their job. In general they were found to be dissatisfied with pay and university administration. Male faculty members were found to be more satisfied than were female faculty members. The differences in job satisfaction with regard to gender were found to be associated with differences in satisfaction among academic divisions. The more satisfied divisions had a greater percentage of males who received high salaries. However, the work itself, pay, work role clarity, and promotion were significant predictors of intended tenure for the community college and the university.

A similar study conducted by Hill (1986) tested the differential effects of the five facets of job satisfaction as measured by the Job Descriptive Index in the prediction of organizational and value commitment and propensity to leave among community college faculty members. He found that satisfaction with the work itself was the best predictor of turnover. However, the work itself, promotion, and coworkers were the most important areas to be improved to increase organizational and value commitment, and to decrease the propensity to leave.

Diener (1983) conducted research concerning job satisfaction among faculty members in nine postsecondary institutions in a state in the southeastern United States. He found the major sources of satisfaction among faculty members were student achievement, personal intellectual growth in a discipline, working under flexible and relatively autonomous conditions, and association with stimulating peers. The major sources of faculty dissatisfaction were working conditions (lack of recognition, heavy teaching load), salary, and interpersonal relation with students and colleagues. In a similar study, Diener (1985) found that over 89 percent of the respondents "loved" or "liked" their work, 78 percent were satisfied with their work most or all of the time, 92 percent were not thinking of changing their career, and 63 percent liked their jobs better than others liked theirs. Factors which produced satisfaction among faculty members were found to be student growth, personal growth, and opportunities for intellectual stimulation. On the other hand, factors which produced dissatisfaction were job conditions, poor facilities and equipment, inflexible or heavy teaching load, lack of recognition, high level of bureaucracy, and low salaries.

In studying some factors that affect the level of job satisfaction of community college faculty in Pennsylvania,

Hill (1983) found that faculty members in higher academic ranks tend to be more satisfied with their work than those in lower ranks. In examining job satisfaction as related to age, he found a considerable variation between older faculty and younger colleagues. Women were found to be less satisfied than men in four dimensions of the work (teaching, economic, convenience, and recognition). When departmental affiliation was used as an independent variable, faculty members in the social and behavioral sciences, education, and mathematics and physical sciences were generally less satisfied with their work than those in nursing and business. Also, it was found that faculty members were not satisfied with their routine occupational activities, scholarly activities, and faculty development activities.

Hutton (1985) studied job satisfaction among faculty members from 14 Texas community colleges. He found that overall, women were more satisfied than men. Women reported the greatest satisfaction with regard to work with colleagues and their teaching or class assignment. Men reported the least satisfaction with regard to the fairness of administration, governing boards' consideration of faculty suggestions, and the value the administration placed on professional publications.

A study entitled "Influence of Ascribed and Achieved Social Attitudes, Values, and Rewards on Job Satisfaction

among Community College Faculty" by Filan, Okun, and Witter (1986) indicated that institutional age and physical safety and job value were significantly inversely related to job satisfaction. All rewards were significantly, positively related to job satisfaction among faculty members of community colleges. It was concluded that the key to job satisfaction would be to enhance the satisfying aspects of the work itself and provide good supervision.

Gomez and Balkin (1984) examined the relationship of faculty unionism to satisfaction with pay and other job dimensions. The results indicated that presence of a faculty union is positively associated with satisfaction with pay. No significant differences in pay satisfaction were observed between liberal arts and business administration faculty. Women were more satisfied with their pay than men in the union system, but no differences by sex were observed in the nonunion system. Untenured faculty members were found to be more satisfied with their pay in both union and nonunion conditions.

Motowidlo (1984) conducted a study of job satisfaction and personal sensitivity. His results suggest that the feeling of satisfaction is associated with patterns of behavior at work, such as listening to others, emotional control, and acceptance of criticism, that reflect interpersonal sensitivity and kindness. However,

satisfaction is not related to other behaviors such as assertiveness, anti-sexism, and self-acceptance. It was found that people who are satisfied with their jobs express their good feeling by behaving considerately and sensitively toward others.

Aluko (1983) studied the work motivation and perceptions of the academic organizational climate at a Nigerian University. He found faculty members viewed their organizational climate as not affected by intrinsic work motivation factors such as opportunities for creativity, responsibility, competition, and accomplishment. On the other hand, faculty members were found to be affected by extrinsic work motivation factors such as physical surroundings and working conditions.

Another study was conducted in Nigeria by Fagbamiye (1981). The results of Fagbamiye's study indicated that married faculty members were more dissatisfied with their work than single faculty members. In general, faculty members in Nigerian universities were found to be dissatisfied and unhappy with the Nigerian higher education system.

Karoonlanjakorn (1986) studied job satisfaction among faculty members at non-Metropolitan teachers colleges in central Thailand. The major purpose of Karoonlanjakorn's study was to determine what significant differences and



level of faculty job satisfaction existed on each face of job satisfaction and overall job satisfaction as measured by Wood Job Satisfaction/Dissatisfaction Scale. Results of the study showed that sources of satisfaction in rank order are interpersonal relations, responsibility, achievement, recognition, the work itself, growth, working conditions, policy and administration, salary, and supervision. However, no significant differences in satisfaction among faculty members with regard to their age, academic degree, and faculty affiliations were found. Moreover, female faculty members were found to be more satisfied with interpersonal relations than were male faculty. Instructors were found to be more satisfied with working conditions than were administrators.

#### Summary

Chapter II reviews the related literature on job satisfaction and motivation in three main sections. The definition of job satisfaction and its measurements is the first section. There are many instruments and concepts of job satisfaction. One of the best measurements of job satisfaction is the Job Descriptive Index.

The second section reviews the major theories of job satisfaction and motivation. Maslow's need hierarchy theory emphasizes the importance of human needs as motivators. Herzberg's two-factor theory assumes that there is one set

of factors that produces satisfaction (motivators), and another set of factors that produces dissatisfaction (hygiene). Expectancy theory states that behavior of employees at work depends on their expectation of the outcome, their values, and the effort required to do the job. Equity theory assumes that employees are influenced by the comparison of their reward with the reward of others who perform the same work.

The third section of this chapter summarizes the research on job satisfaction among faculty members in higher education institutions. The research surveyed was conducted primarily in the United States and a few other countries.

## CHAPTER BIBLIOGRAPHY

- Abreu, J. R. (1980). Job satisfaction of the faculty members of the schools of education in three universities granting doctor of philosophy in the state of Michigan (Doctoral Dissertation, The University of Michigan, 1980). Dissertation Abstracts International, 41, 1849A.
- Adams, J. S. (1963). Toward an understanding of inequity. Journal of Abnormal and Social Psychology, 67, 422-436.
- Ageel, H. A. (1982). Job satisfaction of staff members of Umm Al-Qura university in Makkah, Saudi Arabia (Doctoral Dissertation, Michigan State University, 1982). Dissertation Abstracts International, 43, 2836A.
- Aluko, M. A. (1983). Work motivation and perceptions of academic organizational climate: A Nigerian study. Unpublished Doctoral Dissertation, North Texas State University, Denton, Texas.
- Andrews, I. R. (1967). Wage inequity and job performance: An experimental Study. Journal of Applied Psychology, 51, 39-45.
- Balazedeh, G. (1981). A comparative study of motivation to work and job satisfaction between male and female faculty members at a midwestern regional university (Doctoral Dissertation, University of Kansas, 1981). Dissertation Abstracts International, 42, 4313A.
- Brayfield, A. H., & Rothe, H. F. (1951). An index of job satisfaction. Journal of Applied Psychology, 35, 307-311.
- Brayfield, A. H., & Crockett, W. H. (1955). Employee attitudes and employee performance. Psychological Bulletin, 52, 396-424.
- Carnegie Foundation for the Advancement of Teaching. (1985). The faculty: Deeply troubled. Change, 17 (4), 31-34.
- Diener, T. (1985). Community college faculty job satisfaction. Community/Junior College Quarterly, 9, 347-357.

- Dittrich, J. E., & Carrell, M. R. (1979). Organizational equity perceptions, employee job satisfaction and departmental absence and turnover rates. Organizational Behavior and Human Performance, 24, 29-40.
- Donahue, J. M. (1979). A comparison of factors influencing job satisfaction and dissatisfaction of nursing faculty with faculty in other departments of selected private liberal arts colleges in the Midwest (Doctoral Dissertation, The University of Iowa, 1978). Dissertation Abstracts International, 39, 4619A.
- Edmundson, J. C. (1970). An identification of selected items associated with faculty job satisfaction in the North Carolina system of community colleges (Doctoral Dissertation, North Carolina State University at Raleigh, 1969). Dissertation Abstracts International, 30, 4753A.
- Ewen, R. B., Smith, C. C., Hulin, C. L., & Locke, E. A. (1966). An empirical test of Herzberg Two-Factor theory. Journal of Applied Psychology, 50, 544-550.
- Fagbamiye, E. O. (1981). The organization and administration of Nigerian Universities and the satisfaction and motivation of lecturers in some of those universities. Los Angeles, CA: Paper Presented at the Annual Meeting of the American Educational Research Association. (ERIC Document Reproduction Service No. 201 266)
- Filan, G. L., Okun, M. A., & Witter, R. A. (1986). Influence of ascribed and achieved social attitudes, value, and rewards on job satisfaction among community college faculty. Community/Junior College Quarterly, 10, 113-122.
- Finn, R. H., & Lee, S. M. (1972). Salary equity: Its determination, analysis, and correlates. Journal of Applied Psychology, 56, 283-292.
- French, W. L. (1986). Human resource management. Boston: Houghton Mifflin Company.
- Gibson, J. L., Ivancevich, J. M., & Donnelly, J. H. (1976). Organizations: Behavior, structure, processes. Dallas, Texas: Business Publications, Inc.
- Goldstine, R. J., & Anderson, R. C. (1977). Attitudes of faculty toward teaching. Improving College and University Teaching, 25, 110-111.

- Gomez, L. R., & Balkin, D. B. (1984). Faculty satisfaction with pay and other job dimensions under union and nonunion conditions. Academy of Management Journal, 27, 591-602.
- Goodman, P. S., & Friedman, A. (1971). An examination of Adams' theory of inequity. Administrative Science Quarterly, 16, 271-288.
- Goodman, P. S. (1975). Effect of perceived inequity on salary allocation decisions. Journal of Applied Psychology, 60, 372-375.
- Grahn, J., Kahn, P., & Kroll, P. (1980). General college job satisfaction survey. (ERIC Document Reproduction Service No. 208 716)
- Gruneberg, M. M. (1976). Job satisfaction. New York: John Wiley & Sons.
- Hall, D. T., & Nougaim, K. E. (1968). An examination of Maslow's need hierarchy in an organizational setting. Organizational Behavior and Human Performance, 3, 12-35.
- Halpern, G. (1966). Relative contributions of motivator and hygiene factors to overall job satisfaction. Journal of Applied Psychology, 50, 198-200.
- Harrington, S. L. (1980). Job satisfaction of selected university faculty (Doctoral Dissertation, State University of New York at Buffalo, 1980). Dissertation Abstracts International, 41, 40A.
- Harshberger, R. F. (1986). Job satisfaction/dissatisfaction and the motivation to work of full-time university teaching faculty: An analysis (Doctoral Dissertation, North Carolina State University at Raleigh, 1975). Dissertation Abstracts International, 36, 5738A.
- Hashemi, A. S. (1984). An investigation of job satisfaction among faculty members of a large multi-purpose university in the Dallas-Fort Worth Metroplex. Unpublished Doctoral Dissertation. North Texas State University, Denton, TX.
- Herzberg, F., Manser, B., & Snyderman, B. (1959). The motivation to work. New York: John Wiley & Sons.
- Herzberg, F. (1966). Work and nature of man. Cleveland: The World Publishing Company.

- Herzberg, F. (1968). One more time: How do you motivate employees? Harvard Business Review, 46(1), 53-62.
- Hill, M. D. (1983). Some factors affecting the job satisfaction of community college faculty in Pennsylvania. Community/Junior college Quarterly, 7, 303-317.
- Hinton, B. (1968). An empirical investigation of the Herzberg methodology and two-factor theory. Organizational Behavior and Human Performance, 3, 286-309.
- Hinton, B. L. (1972). The experimental extension of equity theory to interpersonal and group interaction situations. Organizational Behavior and Human Performance, 8, 434-449.
- Hoppock, R. (1935). Job satisfaction. New York: Harper and Brothers.
- Hoy, W. K., & Miskel, C. G. (1978). Educational administration: Theory, research, and Practice. New York: Random House, Inc.
- Hulin, C. L., & Smith, P. C. (1967). An empirical investigation of two implications of two-factor theory of job satisfaction. Journal of Applied Psychology, 51, 396-402.
- Hutton, J. B., & Jobe, M. E. (1985). Job satisfaction of community college faculty. Community/Junior College Quarterly, 9, 317-324.
- Karoonlanjakorn, S. (1986). Job satisfaction among faculty members at non-metropolitan teachers colleges in central Thailand. Unpublished Doctoral Dissertation. North Texas State University, Denton, TX.
- Kposowa, T. S. (1985). Faculty job satisfaction: Effects of relationships between chairperson's leadership behavior and chairperson's value system (Doctoral Dissertation, The Ohio State University, 1984). Dissertation Abstracts International, 45, 2333A.
- Lacewell, W. E. (1983). Job satisfaction of full-time faculty in the community colleges and area post-secondary vocational-technical schools of Arkansas: An analysis based on Herzberg's motivator-hygiene theory (Doctoral Dissertation, University of Arkansas, 1983). Dissertation Abstracts International, 44, 1771A.

- Lawler, E. E., & O'Gara, P. W. (1967). Effects of inequity produced by underpayment on work output, work quality, and attitudes toward the work. Journal of Applied Psychology, 51, 403-410.
- Lawler, E. E. (1968). Equity theory as a predictor of productivity and work quality. Psychological Bulletin, 70, 596-610.
- Lawler, E. E., & Suttle, J. L. (1972). A causal correlational test of the hierarchy concept. Organizational Behavior and Human Performance, 7, 265-289.
- Lawler, E. L., & Suttle, J. L. (1973). Expectancy theory and job behavior. Organizational Behavior and Human Performance, 9, 482-503.
- Locke, E. A. (1969). What is job satisfaction?. Organizational Behavior and Human Performance, 4, 309-336.
- Locke, E. A., Fitzpatrick, W., & White, F. M. (1983). Job satisfaction and role clarity among university and college faculty. The Review of Higher Education, 6, 343-365.
- Lindsay, C. A., Edmond, M., & Leon, G. (1967). The Herzberg theory: A critique and reformation. Journal of Applied Psychology, 51, 330-339.
- Mitchell, T. R., & Albright, D. W. (1972). Expectancy theory predictions of the satisfaction, effort, performance, and retention of naval aviation of officers. Organizational Behavior and Human Performance, 8, 1-16.
- Mitchell, T. R. (1974). Expectancy models of job satisfaction, occupational performance, and effort: A theoretical, methodological, and empirical appraisal. Psychological Bulletin, 81, 1053-1077.
- Novak, R. D. (1975). Preferred job reinforcers and the job satisfaction of faculty in Minnesota's area vocational technical institutes (Doctoral Dissertation, University of Minnesota, 1974). Dissertation Abstracts International, 35, 7799A.
- O'Connor, E. Y., Peters, L. H., & Gordon, S. M. (1978). The measurement of job satisfaction: Current practices and future consideration. Journal of Management, 4 (2), 17-26.

- Porter, L. W. (1961). A study of perceived need satisfaction in bottom and middle management jobs. Journal of Applied Psychology, 45, 1-10.
- Porter, L. W. (1962). Job attitudes in management I: Perceived deficiencies in need fulfillment as a function of job level. Journal of Applied Psychology, 46, 375-384.
- Porter, L. W. (1963). Job attitudes in management II: Perceived deficiencies in needs as a function of job level. Journal of Applied Psychology, 47, 141-148.
- Pritchard, R. D., Dunnette, M. D., & Jorgenson, D. O. (1972). Effects of perceptions of equity and inequity on worker performance and satisfaction. Journal of Applied Psychology, 56, 75-94.
- Pritchard, R. D., & Deleo, P. J. (1973). Experimental test of the valence-instrumentality relationship in job performance. Journal of Applied Psychology, 57, 264-270.
- Robinson, J. P., Athanasiou, R., & Head, K. B. (1969). Measures of occupational attitudes and occupational characteristics. Survey research, center institute for social research.
- Schwab, D. P., & Heneman, H. G. (1970). Aggregate and individual predictability of the two-factor theory of job satisfaction. Personnel Psychology, 23, 55-66.
- Schwab, D. P., Devitt, W. H., & Cumming, L. L. (1971). A test of asegency of the two-factor theory as a predictor of self-report performance effects. Personnel Psychology, 24, 293-304.
- Scott, W. G., & Mitchell, T. R. (1976). Organization theory: A structural and behavioral analysis. Homewood, Illinois: Richard D. Irwin, Inc.
- Sell, R. G., & Shipley, P. (1979). Satisfaction in work design: Ergonomics and other approaches. London: Taylor & Francis Ltd.
- Smith, P. C., Kendall, L. M., & Hulin, C. L. (1969). The measurement of satisfaction in work and retirement. Chicago, Illinois: Rand McNally and Company.



- Sorgiovanni, T. J. (1966). Satisfaction and dissatisfaction of teachers (Doctoral Dissertation, The University of Rochester, 1966). Dissertation Abstracts International, 27, 1235-1236A.
- Steers, R. M., & Porter, L. W. (1979). Motivation and work behavior. New York: McGraw-Hill Book Company.
- Telly, C. S., French, W. L., & Scott, W. G. (1971). The relationship of inequity to turnover among hourly workers. Administrative Science Quarterly, 16, 164-172.
- Vatthaisong, A. (1983). A study of job satisfaction and dissatisfaction among faculty members in teacher training institutions in Thailand (Doctoral Dissertation, George Peabody College for Teachers of Vanderbilt University, 1982). Dissertation Abstracts International, 44, 468A.
- Vroom, Victor H. (1964). Work and motivation. New York: John Wiley & sons.
- Wanous, J. P., & Lawler, E. (1972). Measurement and meaning of job satisfaction. Journal of Applied Psychology, 56, 95-105.
- Waters, H. K., & Waters, C. W. (1972). An empirical test of five versions of the two-factor theory of job satisfaction. Organizational Behavior and Human Performance, 7, 18-24.
- Wickstrom, R. A. (1971). An investigation into job satisfaction among teachers (Doctoral Dissertation, University of Oregon, 1971). Dissertation Abstracts International, 32, 1249A.
- Winkler, L. D. (1982). Job satisfaction of university faculty in the United States (Doctoral Dissertation, The University of Nebraska-Lincoln, 1982). Dissertation Abstracts International, 43, 692A.
- Wofford, J. C. (1971). The motivational bases of job satisfaction and job performance. Personnel Psychology, 24, 501-518.
- Wood, O. R. (1976). A Research Project: Measuring Job Satisfaction of the Community College Staff. Community College Review, 3, 57-67.

- Wozniak, L. C. (1973). A study of the relationship of selected variables and the job satisfaction/dissatisfaction of music faculty in two-year colleges (Doctoral Dissertation, The Catholic University of America, 1973). Dissertation Abstracts International, 35, 2349A.
- Wren, D. A. (1979). The evolution of management thought (2nd ed.). New York: John Wiley & Sons.

## CHAPTER III

### METHODOLOGY

This chapter presents the research methodology employed in this study. The data collecting instruments, the population, the procedures for the collection of data, and the statistical analysis of the data are described in this chapter.

#### Data Collecting Instruments

A faculty data sheet was employed to provide general information about the respondents. The information gathered about the faculty members is used as independent variables. These variables are gender, marital status, age, annual salary, years of experience, academic rank, nature of academic activity, primary faculty affiliation, country in which the last degree was awarded, faculty tenure status, and nationality (Appendix B).

The Job Descriptive Index (JDI) as revised by P. C. Smith in January 1985 was the primary instrument utilized. Written permission to use the JDI was granted by P. C. Smith (Appendix C). The Job Descriptive Index measures six areas of job satisfaction: work on present job, present pay, opportunities for promotion, supervision, coworkers, and job

in general (overall job satisfaction). Each face of work is described by a single word or phrases. The respondents were asked to describe each face by writing in the blank beside each word or phrase "Y" if it describes the the face, "N" if it does not describe that face, and "?" if they cannot decide.

The Job Descriptive Index was chosen to be used in this study because it is "without doubt the most carefully constructed measure of job satisfaction in existence today" (Vroom, 1964, p. 100). According to O'Connor (1978), the Job Descriptive Index is the most frequently employed measure of job satisfaction. The JDI was used in 27.7 percent of the studies conducted from 1973-1975 and in 29.3 percent of the studies conducted from 1976-1978. According to Yeager (1981), more than 50 percent of the studies published between 1970 and 1978 in seven leading management or management related journals used the Job Descriptive Index to measure job satisfaction.

Smith (1975) described the Job Descriptive Index as directed to specific areas of job satisfaction rather than global satisfaction, as easy to answer from different educational levels, as a job-referent rather than a self-referent, and as being "designed with dimensions of the job in mind. . . . The JDI is designed to help the respondent, not to fool him" (Smith, 1975, pp. 70-71). Dunn (1972), stated:

Since satisfaction with different aspects of the job is likely to be attributable to different antecedent conditions, measures of satisfaction should have discriminant validity. Also each aspect of the work to which the worker may respond differentially should be measured separately. The JDI meets both these tests (Dunn, 1972, p. 322).

Locke (1976) also described the Job Descriptive Index as the most carefully developed instrument for measuring job satisfaction. In addition, the JDI shows a high degree of reliability that exceeds .80 for each face (Smith, 1975).

#### Population

All of the full-time faculty members at Yarmouk University constitute the population of this study. The total number of faculty members involved in this study is 350 in five faculties. There are five faculties (colleges) at Yarmouk University: the Faculty of Science, the Faculty of Art and Human and Social Sciences, the Faculty of Economics and Administrative Sciences, the Faculty of Engineering and the Faculty of Medicine. Table I shows the distribution of faculty members in each college and their percentages to total faculty members.

#### Procedures for Collection of Data

Written permission to conduct this study was requested and received from the president of Yarmouk University (Appendix D). The dean's office of each faculty furnished a

TABLE I

## DISTRIBUTION OF FACULTY MEMBERS BY FACULTY AFFILIATION

Faculty Affiliation	Number	percentage
Sciences	78	22.3
Art & Human & Social Sciences	140	40.0
Economics & Administrative Sciences	41	11.7
Engineering	57	16.3
Medicine	34	9.7
TOTAL	350	100.0

list of faculty members, and an envelope was mailed (or handed) to each faculty member included in this study. The envelope contained (a) a cover letter (Appendix A) introducing the study, giving the importance of the respondent's cooperation, and assuring the confidentiality of the information; (b) the questionnaire which consisted of two parts: the faculty data sheet and the Job Descriptive Index ; and (c) a return envelope. A two-week period was given for the respondents to return the questionnaires.

A total of 231 questionnaires was returned. A total of 15 questionnaires was found to be unusable during the data coding process. These 15 questionnaires were excluded from the study. The following table shows the number of usable questionnaires and the percentage of return from each faculty.

TABLE II

NUMBER OF USABLE QUESTIONNAIRES FROM EACH FACULTY  
AND THE RATE OF RETURN

Faculty	Responses	Rate of Return
Science	49	62.8
Art & Human & Social Sciences	84	60.0
Economics & Administrative Sciences	27	68.3
Engineering	35	61.4
Medicine	21	61.8
TOTAL	216	61.7

#### Analysis and Treatment of Data

A numerical code was assigned to each response. Demographic variables were considered as independent variables. Dependent variables were the six faces or areas, of the Job Descriptive Index. In each face there are 18 items describing it, except for the areas of supervision and opportunities for promotion which have only 9 items. To make these equivalent numerically to the other faces, the sum of scores is doubled. The scoring of the Job Descriptive Index items is as follows: a score of 3 is given to each item if the response to a positive item is "Y" or the response to a negative item is "N." A score of 0 (zero) is given to an item if the response to a positive item is "N" or the response to a negative item is "Y." A score of 1 is given to each item if the response is "?" or is omitted. A sum of scores for each face is then obtained.

The Statistical Packages for Social Sciences (SPSS-X) was used to compute frequencies, means, percentages, one-way analyses of variance (ANOVA) and the Scheffe follow-up tests of significance. The level of significance was set at .05. The one-way analysis of variance (ANOVA) was used in this study to test the significance of mean differences for each face of the Job Descriptive Index with regard to each demographic variable. When a significant mean difference existed, the Scheffe method for multiple comparison was used to show which levels of the independent variables were significantly different. The Scheffe method was used because it permits comparison among groups of unequal numbers, and it is more rigorous than other multiple methods (Ferguson, 1981).

#### Summary

The major focus of this chapter is the methodology used in this study. The data collecting instrument utilized consisted of a faculty data sheet to obtain general information about the respondents, and the Job Descriptive Index as revised by P. C. Smith in 1985 to provide information about the respondents' feelings about their work in different areas.

The population of this study consisted of all 350 faculty members in the five faculties at Yarmouk University, Jordan. The data obtained from the returned questionnaires



were examined and analyzed. The statistical procedures used were the mean, one-way analysis of variance, and the Scheffe follow-up test of significance.

## CHAPTER BIBLIOGRAPHY

- Dunn, J. D., & Elvis, C. S. (1972). Management of personnel. New York: McGraw-Hill Book Company.
- Ferguson, G. A. (1981). Statistical analysis in psychology and education (5th ed.). New York: McGraw-Hill Company.
- O'Connor, E. Y., Lawrence H. P., & Steve M. G. (1978). The measurement of job satisfaction: Current practices and future consideration. Journal of Management, 4, 17-26.
- Smith, P. C., Kendall, L. M., & Hulin, C. L. (1975). Measurement of satisfaction in work and retirement. Bowling Green State University.
- SPSS Inc. (1986). SPSS-X: User's guide (2nd ed.). Chicago, Il: Marketing Department, SPSS Inc.
- Vroom, V. H. (1964). Work and motivation. New York: John Wiley & Sons, Inc.
- Yeager, S. J. (1981). Dimensionality of the job descriptive index. Academy of Management Journal, 24, 205-212.

## CHAPTER IV

### PRESENTATION AND ANALYSIS OF DATA

The purpose of this chapter is to present the data concerning the level of job satisfaction of faculty members at Yarmouk University and the significant differences in the mean scores for the six subsections of the Job Descriptive Index with regard to the faculty demographic variables. The rest of this chapter is devoted to presenting the findings for each research question. Mean scores, one-way analyses of variance, and the Scheffe method of multiple comparison were utilized. The level of significant was set at the 0.05 for the Scheffe procedure of multiple comparison.

Data in this study were obtained from faculty members at Yarmouk University, Jordan. The questionnaires were sent to all full-time faculty members. The data presented in this chapter reflect returns from 216 of the 350 total subjects contacted, for a 60.7 percent return. Table III shows the numbers and percentages of usable questionnaires based on the demographic variables.

TABLE III

NUMBERS AND PERCENTAGES OF USABLE RESPONSES FROM FACULTY MEMBERS FOR ALL DEMOGRAPHIC VARIABLES

Demographic Variables	Number	Percentage
Gender		
Male	197	91.2
Female	19	8.8
Marital status		
Married	188	87.0
Single	28	13.0
Age		
Less than 35	56	26.0
35-45	131	60.6
More than 45	29	13.4
Annual salary		
Less than JD5000	41	20.0
JD5000-JD6000	102	47.2
More than JD6000	73	33.8
Years of Experience		
Less than 5 years	107	49.5
5 years-10 years	75	34.7
More than 10 years	34	15.8
Academic rank		
Professor	13	6.0
Associate Professor	39	18.0
Assistant Professor	164	76.0
Faculty Affiliation		
Science	49	22.7
Art	84	38.9
Economics	27	12.5
Engineering	35	16.2
Medicine	21	9.7
Country Awarding Last Degree		
Middle East	25	11.6
United States & Canada	128	59.2
Europe	47	26.4
Other	6	2.8
Faculty Tenure Status		
Tenured	45	20.8
Nontenured	171	79.2
Nationality		
Jordanian	160	74.1
Arab	30	13.9
Alien	26	12.0

### Gender and Job Satisfaction

Research question one seeks significant differences in job satisfaction on the Job Descriptive Index (JDI) among faculty members based on gender. The independent variable is gender. The dependent variables are the six subsections of the JDI.

Mean scores on each subsection of the JDI were computed with regard to faculty gender. There were 197 male faculty members and 19 female faculty members. Table IV records the

TABLE IV

DIFFERENCES IN JOB SATISFACTION BASED ON GENDER  
(ONE-WAY ANOVA)

Job Satisfaction Area	Faculty Gender		P
	Male (N=197)	Female (N=19)	
Present Job	35.3	32.6	0.39
Present Pay	26.9	31.9	0.15
Promotion	24.5	22.8	0.65
Supervision	30.9	28.7	0.49
Coworkers	29.1	27.4	0.63
Job in General	38.6	38.0	0.82

mean scores on each subsection of the JDI based on the gender of faculty members. As Table IV indicates, there were no significant differences among male and female faculty members in job satisfaction areas as measured by the Job Descriptive Index.

However, Table IV indicates that the mean scores of female faculty members were slightly higher than those of male faculty members in the area of present pay. On the other hand, the mean scores of male faculty members were slightly higher than those of female faculty members in the areas of work in present job, opportunities for promotion, supervision, coworkers, and job in general. In general, it seems that male and female faculty members are equally satisfied in their work.

#### Marital Status and Job Satisfaction

Research question two seeks significant differences in job satisfaction among faculty members with regard to marital status based on the mean scores for the subsections of the JDI. Faculty members were classed in two groups:

TABLE V

DIFFERENCES IN JOB SATISFACTION BASED ON MARITAL STATUS  
(ONE-WAY ANOVA)

Job Satisfaction Areas	Faculty Marital Status		P
	Married (N=188)	Single (N=28)	
Present Job	35.0	35.4	0.89
Present Pay	26.7	31.2	0.12
Promotion	23.7	28.7	0.10
Supervision	31.0	28.8	0.40
Coworkers	29.3	26.9	0.41
General	38.6	38.1	0.82

married and single. The data shown in Table V were derived from 188 married faculty members, and 28 single faculty members. Table V records the mean scores of faculty members on each subsection of the Job Descriptive Index with regard to marital status.

As Table V indicates, no significant differences exist among faculty members on each subsection of the JDI. However, Table V indicates that in three subsections of the JDI (working present job, present pay, and opportunities for promotion) the mean scores of single faculty members were slightly higher than those of married faculty members. On the other hand, for the other three subsections of the JDI (supervision, coworkers, and job in general) the mean scores of married faculty members were slightly higher than those of single faculty members.

#### Age and Job Satisfaction

Research question three seeks significant differences in job satisfaction among faculty members with regard to age. Mean scores on each subsection of the JDI with regard to faculty age were computed. Faculty were categorized into three groups: less than 35 years old, between 35 and 45 years old, and more than 45 years old. Fifty-six faculty members were less than 35 years old, 131 faculty members were between 35 and 45 years old, and 29 faculty members were more than 45 years old.

TABLE VI

DIFFERENCES IN JOB SATISFACTION BASED ON AGE  
(ONE-WAY ANOVA)

Job Satisfaction Areas	Age Groups			P
	< 35 (N=56)	35-45 (N=131)	> 45 (N=29)	
Present Job	35.6	33.6	40.8	0.02*
Present Pay	27.7	25.6	34.3	0.01**
Promotion	24.9	22.9	29.9	0.08
Supervision	30.2	30.1	34.4	0.25
Coworkers	29.0	28.2	32.0	0.45
General	38.3	38.1	40.9	0.42

(\* ) Denotes significance at 0.05. (\*\* ) Denotes significance at 0.01.

As Table VI indicates, there are significant differences among faculty members with regard to their age on the subsections of work in present job and present pay at the 0.05 and 0.01 level, respectively.

The Scheffe test was performed to determine which groups significantly differ from each other on the subsection of work in present job. Table VII indicates that the mean scores for work in present job in relation to job satisfaction for faculty members over 45 years of age (mean=40.8) were significantly greater (at 0.05 level of significance) than those of faculty members between the age of 35 and 45 (mean=33.6).



TABLE VII

DIFFERENCES IN JOB SATISFACTION BASED ON WORK  
IN PRESENT JOB BY AGE  
(SCHEFFE TEST)

Age Groups	Mean	Age Groups		
		1	2	3
Group 1 Less than 35 (N=56)	35.6			
Group 2 Between 35 and 45 (N=131)	33.6			
Group 3 More than 45 (N=29)N	40.8	*		

(\*) Denotes pairs of groups significantly different at the 0.05 level of significance.

The Scheffe test of multiple comparison was used to locate which groups were significantly different in the area of present pay. An examination of Table VIII will show that

TABLE VIII

DIFFERENCES IN JOB SATISFACTION BASED ON  
PRESENT PAY BY AGE  
(SCHEFFE TEST)

Age Groups	Mean	Age Groups		
		1	2	3
Group 1 Less than 35 (N=26)	27.6			
Group 2 Between 35 and 45 (N=131)	25.6			
Group 3 More than 45 (N=29)	34.3	*		

(\*) Denotes pairs of groups significantly different at the 0.05 level of significance.

the mean scores for the present pay subsection of the Job Descriptive Index in relation to job satisfaction for faculty members over 45 years of age were significantly greater than for faculty members between the ages of 35 and 45.

#### Annual Salary and Job Satisfaction

Research question four seeks significant differences in job satisfaction among faculty members with regard to annual salary. The three levels of annual faculty salary were less than JD5000, between JD5000 and JD6000, and more than JD6000. Forty-one faculty members received an annual salary of less than JD5000, 102 faculty members received an annual salary between JD5000 and JD6000, and 73 faculty members received an annual salary of more than JD6000.

TABLE IX

DIFFERENCES IN JOB SATISFACTION BASED ON ANNUAL SALARY  
(ONE-WAY ANOVA)

Job Satisfaction Areas	Annual Salary			P
	< JD5000 (N=41)	5000-6000 (N=102)	> JD6000 (N=73)	
Present job	31.9	35.4	36.3	0.19
Present Pay	25.2	26.9	29.1	0.36
Promotion	20.7	23.4	27.8	0.04*
Supervision	27.2	30.3	33.3	0.05*
Coworkers	25.9	27.7	32.5	0.03*
General	36.0	38.6	39.8	0.16

(\*) Denotes significance at 0.05.

Table IX indicates that there were significant differences among faculty members with regard to their annual salary in the opportunities for promotion, supervision, and coworkers subsections of the Job Descriptive Index. However, the scores for faculty members at all three salary levels were lowest in the area of opportunities for promotion.

The Scheffe follow-up test of multiple comparison did not show which groups were significantly different in the areas for which differences exist due to its conservative nature. Therefore, The Tukey, a less conservative multiple comparison test, was utilized to attempt to determine which groups were significantly different.

TABLE X

DIFFERENCE IN JOB SATISFACTION BASED ON OPPORTUNITIES  
FOR PROMOTION BY ANNUAL SALARY  
(TUKEY TEST)

Annual Salary Groups	Mean	Annual salary groups		
		1	2	3
Group 1 Less than JD5000 (N=41)	20.7			
Group 2 JD5000-JD60000 (N=102)	23.4			
Group 3 More than JD6000 (N=73)	27.8	*		

(\* ) Denote pairs of groups significantly different at .05.

Table X indicates that faculty members with an annual salary of more than JD6000 were significantly more satisfied

in the area of opportunities for promotion (mean=27.8) than faculty members with annual salary of less than JD5000 (mean=20.7).

TABLE XI

DIFFERENCES IN JOB SATISFACTION BASED ON  
SUPERVISION BY ANNUAL SALARY  
(TUKEY TEST)

Annual Salary Groups	Mean	Annual salary groups		
		1	2	3
Group 1 Less than JD5000(N=41)	27.2			
Group 2 JD5000-JD6000 (N=102)	30.3			
Group 3 More than JD6000 (N=73)	33.3	*		

(\*) Denote pairs of groups significantly different at the 0.05 level.

Table XI indicates that faculty members with an annual salary of more than JD6000 were significantly more satisfied with the area of supervision (mean=33.3) than were faculty members with an annual salary less than JD5000 (mean=27.2). These data indicate that faculty members with higher salaries were more satisfied with supervision than were faculty members with salaries in the low level.

Table XII indicates that faculty members with an annual salary of more than JD6000 were more satisfied with their coworkers than those whose annual salary was between JD5000 and JD6000, and those whose annual salary were less than JD5000. The mean scores of faculty members with an annual

TABLE XII

DIFFERENCES IN JOB SATISFACTION BASED ON  
COWORKERS BY ANNUAL SALARY  
(TUKEY TEST)

Annual Salary Groups	Mean	Annual Salary Groups		
		1	2	3
Group 1 Less than JD5000 (N=41)	25.9			
Group 2 JD5000-Jd6000 (N=102)	27.7			
Group 3 More than JD6000 (N=73)	32.5	*		

(\*) Denotes pairs of groups significantly different at the 0.05 level.

salary of more than JD6000 were significantly greater than the mean scores of faculty members with an annual salary of less than JD5000 in the co-workers subsection of the Job Descriptive Index. As the annual salary increases, the degree of satisfaction with coworkers increases.

#### Years of Experience and Job Satisfaction

Research question five seeks significant differences in job satisfaction on each subsection of the Job Descriptive Index with regard to years of experience. Based on years of experience, faculty were classified into three groups: those with less than 5 years of experience, those with between 5 and 10 years of experience, and those with more than 10 years of experience. One hundred seven faculty members had less than 5 years of experience, 75 faculty

members had between 5 and 10 years of experience, and 34 faculty members had more than 10 years of experience.

Table XIII indicates that the mean scores on all subsections of the Job Descriptive Index were higher for faculty members with more than 10 years of experience than for all other groups. Likewise, the mean scores of faculty members with between 5 and 10 years of experience were higher on all subsections of the Job Descriptive Index than the mean scores of faculty members with less than 5 years of

TABLE XIII

DIFFERENCES IN JOB SATISFACTION BASED ON  
YEARS OF EXPERIENCE  
(ONE-WAY ANOVA)

Job Satisfaction Areas	Years of Experience			P
	< 5 (N=107)	5-10 (N=75)	> 10 (N=34)	
Present Job	33.8	35.8	37.1	0.33
Present Pay	25.6	27.0	33.5	0.02*
Promotion	23.0	25.2	26.9	0.36
Supervision	29.0	31.2	35.2	0.04*
Coworkers	27.4	28.9	33.9	0.07
General	37.2	38.7	42.4	0.03*

(\*) Denotes significance at 0.05

experience. Table XIII indicates that the mean scores of faculty members on the subsections of present pay, supervision, and job in general were significantly different.

The Scheffe test of multiple comparison was utilized to determine which groups of faculty members were significantly different in the area of present pay with regard to years of

TABLE XIV

DIFFERENCES IN JOB SATISFACTION BASED ON PRESENT  
PAY BY YEARS OF EXPERIENCE  
(SCHEFFE TEST)

Years of Experience Groups	Mean	Y. of Exp. Groups		
		1	2	3
Group 1 Less than 5 years (N=107)	25.6			
Group 2 Between 5 and 10 (N=75)	27.0			
Group 3 More than 10 years (N=34)	33.5	*		

(\*) Denotes pairs of groups significantly different at the 0.05 level

experience. Table XIV shows that faculty members with more than 10 years of experience were significantly more satisfied with present pay than were faculty members with less than 5 years of experience.

The Scheffe test of multiple comparison (Table XV) was used to determine which groups of faculty members are significantly different in the area of supervision as measured by the Job Descriptive Index with regard to years of experience. Table XV indicates that faculty members with more than 10 years of experience were significantly more satisfied with the supervision (mean=35.2) than faculty members with less than 5 years of experience (mean=29.0).

TABLE XV

DIFFERENCES IN JOB SATISFACTION BASED ON  
SUPERVISION BY YEARS OF EXPERIENCE  
(SCHEFFE TEST)

Years of Experience Groups	Mean	Y. of Exp. Groups		
		1	2	3
Group 1 Less than 5 Years (N=107)	29.0			
Group 2 Between 5 and 10 (N=75)	31.2	*		
Group 3 More than 10 Years (N=34)	35.2			

(\*) Denotes pairs of groups significantly different at the 0.05 level

The Scheffe test of multiple comparison was utilized to determine which groups of faculty members were significantly different in the area of job in general as measured by the Job Descriptive Index with regard to years of experience.

TABLE XVI

DIFFERENCES IN JOB SATISFACTION BASED ON JOB IN  
GENERAL BY YEARS OF EXPERIENCE  
(SCHEFFE TEST)

Years of Experience Groups	Mean	Y. of Exp. Groups		
		1	2	3
Group 1 Less than 5 Years (N=107)	37.2			
Group 2 Between 5 and 10 (N=75)	38.7	*		
Group 3 More than 10 Years (N=34)	42.4			

(\*) Denotes pairs of groups significantly different at the 0.05 level



Table XVI indicates that faculty members with more than 10 years of experience were significantly more satisfied with their job in general at 0.05 level of significance than faculty members with less than 5 years of experience.

#### Academic Rank and Job Satisfaction

Research question six seeks significant differences in job satisfaction among faculty members with regard to academic rank based on the mean scores for all subsections of the Job Descriptive Index. Based on academic rank, faculty were classified in three groups: Professors, associate professors, and assistant professors. Thirteen (6%) faculty members were professors, 39 (18%) faculty members were associate professors, and 164 (76%) faculty members were assistant professors.

TABLE XVII

DIFFERENCES IN JOB SATISFACTION BASED ON ACADEMIC RANK  
(ONE-WAY ANOVA)

Job Satisfaction Areas	Faculty Academic Ranks			P
	Professor (N= 13)	Associate (N= 39)	Assistant (N= 164)	
Present Job	42.6	35.0	34.4	0.08
Present Pay	33.7	28.8	26.4	0.16
Promotion	30.0	27.1	23.3	0.14
Supervision	39.5	32.4	29.6	0.02*
Coworkers	36.2	29.5	28.2	0.15
General	44.2	38.7	38.0	0.12

(\*) Denotes significance at the 0.05 level

Table XVII indicates that faculty members with the academic rank of professors were more satisfied than associate professors and assistant professors in all subsections of the Job Descriptive Index. Likewise, associate professors were more satisfied in all subsections of the Job Descriptive Index than were assistant professors. Table XVII indicates that there is a significant difference among faculty members in the subsection of supervision.

The Scheffe test of multiple comparison was used to determine which groups of faculty members were significantly different in the area of supervision with regard to faculty

TABLE XVIII

DIFFERENCES IN JOB SATISFACTION BASED ON  
SUPERVISION BY ACADEMIC RANK  
(SCHEFFE TEST)

Academic Rank Groups	Mean	Academic Rank Groups		
		1	2	3
Group 1 Professors (N=13)	39.5			
Group 2 Assoc. Prof. (N=39)	32.4			
Group 3 Asst. Prof. (N=164)	29.6	*		

(\* ) Denote pairs of groups significantly different at the 0.05 level of significance.

academic rank. Table XVIII indicates that faculty members with the rank of professor were significantly more satisfied with supervision at the 0.05 level of significance than were faculty members with the rank of assistant professor.

### Academic Activity and Job Satisfaction

Research question seven seeks significant differences among faculty members with regard to nature of academic activity based on means scores for subsections of the Job Descriptive Index. Faculty academic activity has three levels: Teaching only, teaching and administration, and teaching and research. Thirty four (15.7%) faculty members devoted their time to teaching only, 36 (16.7%) faculty members were involved in teaching and administration, and 146 (67.6%) faculty members devoted their time to teaching and research.

TABLE XIX

#### DIFFERENCES IN JOB SATISFACTION BASED ON ACADEMIC ACTIVITY (ONE-WAY ANOVA)

Job Satisfaction Area	Faculty Academic Activity			P
	Teaching (N= 34)	Teach. & Adm. (N= 36)	Teach. & Res. (N=146)	
Present Job	34.1	37.1	34.8	0.55
Present Pay	28.3	23.7	28.0	0.26
Promotion	26.3	27.7	23.1	0.19
Supervision	30.3	31.7	30.6	0.89
Coworkers	25.9	30.4	29.3	0.37
General	40.0	37.1	38.5	0.49

Table XIX indicates that faculty members who devoted their time for teaching only had the lowest mean scores in the areas of co-workers and opportunities for promotion.

Faculty members with teaching and administration activities had the lowest mean scores in the areas of present pay and opportunities for promotion. Table XIX indicates that there were no significant differences among faculty members on all subsections of the Job Descriptive Index with regard to academic activity.

#### Faculty Affiliation and Job Satisfaction

Research question eight seeks significant differences in job satisfaction among faculty members with regard to faculty affiliation based on mean scores on subsections of the Job Descriptive Index.

There are five faculties (colleges) at Yarmouk University: the Faculty of Science, the Faculty of Art and Human and Social Sciences, the Faculty of Economic and Administrative Sciences, the Faculty of Engineering, and the Faculty of Medicine. Forty-nine (22.7%) responses came from the Faculty of Science, 84 (38.9%) from the Faculty of Art and Human and Social Sciences, 27 (12.5%) from the Faculty of Economic and Administrative Sciences, 35 (16.2%) from the Faculty of Engineering, and 21 (9.7%) from the Faculty of Medicine.

Table XX indicates that faculty members in the Faculty of Economic and Administrative Science, Engineering, and Medicine had the lowest mean scores in the subsection of opportunities for promotion. The scores of faculty for present pay were lowest in the Faculty of Medicine. Table

TABLE XX

DIFFERENCES IN JOB SATISFACTION BASED ON FACULTY AFFILIATION  
(ONE-WAY ANOVA)

Job Satisfaction Area	Faculty Affiliation					P
	(1) N=49	(2) N=84	(3) N=27	(4) N=35	(5) N=21	
Present Job	34.9	34.9	33.0	36.1	36.7	0.86
Present Pay	24.0	28.1	28.7	31.1	23.9	0.15
Promotion	25.0	25.1	23.8	22.5	23.7	0.92
Supervision	30.4	29.5	32.1	31.7	33.1	0.74
Coworkers	28.5	25.3	29.7	32.9	36.9	0.00*
General	37.5	38.4	37.8	40.4	39.3	0.74

(\*) Denotes significance at .01. Note: (1) The Faculty of Science (2) The Faculty of Art and Human and Social Sciences (3) The Faculty of Economic and Administrative Sciences (4) The Faculty of Engineering and (5) The Faculty of Medicine.

XX indicates that there is a significant difference among faculty members on the subsection of co-workers ( $P > 0.01$ ).

TABLE XXI

DIFFERENCES IN JOB SATISFACTION BASED ON COWORKERS  
BY FACULTY AFFILIATION  
(SCHEFFE TEST)

Faculty Affiliation Groups	Mean	Faculty Groups				
		1	2	3	4	5
Group 1 Sciences (N=49)	28.5					
Group 2 Art & Human (N=84)	25.3					
Group 3 Economics (N=27)	29.7					
Group 4 Engineering (N=35)	32.9					
Group 5 Medicine (N=21)	36.9	*				

(\*) Denote pair groups significantly different ( $P = .05$ )

The Scheffe follow-up test of multiple comparison was utilized to determine which groups were significantly different in job satisfaction on the subsection of coworkers. Table XXI indicates that faculty members at the Faculty of Medicine were significantly more satisfied with co-workers (mean=36.9) than were faculty members in the Faculty of Art and Human and Social Sciences (mean=25.3).

#### Country Awarding Last Degree and Job Satisfaction

Research question nine seeks significant differences in job satisfaction among faculty members with regard to the country in which the last degree was received based on mean scores from the subsections of the Job Descriptive Index. With regard to the country awarding the last degree, faculty members were categorized into 4 groups: Middle East, United States, Europe, and Other. Twenty-five faculty members (11.6%) received their last degree in the Middle East, 128 faculty members (59.2%) received their last degree in the United States, 47 faculty members (26.4%) received their last degree in Europe, and 6 faculty members (2.8%) received their degree in other countries (Japan, Iran, and India).

Table XXII indicates that faculty members who received their degree in the Middle East had their lowest mean scores in the job satisfaction area of opportunities for promotion (M=29.2) and co-workers (M= 29.9). Faculty members who received their last degree in the United States had their

TABLE XXII

DIFFERENCES IN JOB SATISFACTION BASED ON COUNTRY  
AWARDED THE LAST DEGREE  
(ONE-WAY ANOVA)

Job Satisfaction Area	Country Awarded the Last Degree				P
	(1) N=25	(2) N=128	(3) N=57	(4) N=6	
Present Job	40.9	33.8	35.4	33.8	0.08
Present Pay	32.6	25.4	29.3	27.3	0.07
Promotion	29.2	23.6	24.5	19.7	0.33
Supervision	34.7	29.9	30.6	33.5	0.37
Coworkers	29.9	28.1	29.5	37.2	0.46
General	41.8	37.6	38.8	42.5	0.20

Note: (1) Middle East (2) U.S.A. & Canada (3) Europe  
(4) Other

lowest mean scores in the job satisfaction area of opportunities for promotion (mean=23.6) and present pay (mean=25.4). Faculty members who received their last degree in Europe had their lowest mean scores in the job satisfaction area of opportunities for promotion (mean=24.5) and present pay (mean=29.3). Table XXII indicates that no significant difference exists among faculty members in all areas of job satisfaction as measured by the JDI.

#### Faculty Tenure Status and Job Satisfaction

Research question ten seeks significant differences in job satisfaction among faculty members with regard to faculty tenure status based on mean scores on the areas of

the Job Descriptive Index. Based on tenure status, faculty members were divided into two groups: tenured faculty members and nontenured faculty members. There are 45 (20.8%) tenured faculty members and 171 (79.2%) nontenured faculty members. A one-way analysis of variance was utilized to determine if a significance exists among faculty members on each subsection of the Job Descriptive Index with regard to faculty tenure status. Table XXIII shows a significant difference among faculty members in the

TABLE XXIII

DIFFERENCES IN JOB SATISFACTION BASED ON TENURE STATUS  
(ONE-WAY ANOVA)

Job Satisfaction Area	Faculty Tenure Status		P
	Tenure (N=45)	Nontenure (N=171)	
Present Job	38.5	34.1	0.04*
Present Pay	27.0	27.4	0.86
Promotion	27.6	23.5	0.10
Supervision	29.6	31.0	0.53
Coworkers	29.2	28.9	0.90
General	39.9	31.1	0.30

(\*) Denotes significance at 0.05 level

subsection of work in present job. As Table XXIII indicates, tenured faculty members were significantly more satisfied with their present job ( $P > 0.05$ ) than nontenured faculty members.



## Nationality and Job Satisfaction

Research question eleven seeks significant differences in job satisfaction among faculty members with regard to faculty member's nationality based on mean scores for the subsections of the Job Descriptive Index. Based on nationality, faculty members were categorized into three groups: Jordanian, Arab, and alien. One hundred sixty (74.1%) faculty members are Jordanian, 30 (13.9%) are Arab, and 26 (12.0%) are alien. Table XXIV indicates there is a

TABLE XXIV

DIFFERENCES IN JOB SATISFACTION BASED ON NATIONALITY  
(ONE-WAY ANOVA)

Job Satisfaction Area	Nationality Groups			P
	Jordanian (N=160)	Arab (N=30)	Alien (N=26)	
Present Job	35.2	37.7	31.0	0.13
Present Pay	24.8	34.6	34.5	0.00***
Promotion	24.2	29.5	19.5	0.04*
Supervision	29.8	33.0	34.0	0.17
Coworkers	27.7	31.0	34.5	0.05*
General	37.5	43.5	38.9	0.01**

(\*) Denotes significance at 0.05 level (\*\*) Denotes significance at 0.01 level (\*\*\*) Denotes significance at 0.001 level

significant difference among faculty members in the areas of present pay, opportunities for promotion, co-workers, and job in general.

The Scheffe test of multiple comparison was utilized to determine which groups were significantly different in the area of present pay, with regard to faculty nationality.

TABLE XXV

DIFFERENCES IN JOB SATISFACTION BASED ON PRESENT  
PAY BY NATIONALITY  
(SCHEFFE TEST)

Faculty Nationality Groups	Mean	Nationality Groups		
		1	2	3
Group 1 Jordanian (N=160)	24.8			
Group 2 Arab (N=30)	34.5	*		
Group 3 Alien (N=26)	34.6	*		

(\*) Denotes pairs of groups significantly different at the 0.05 level

Table XXV indicates that Arab faculty members (mean=34.6) were significantly more satisfied with present pay than Jordanian faculty members (mean=24.8). Table XXV also indicates that alien faculty members (mean=34.5) were significantly more satisfied with present pay than Jordanian faculty members.

The Scheffe test of multiple comparison was used to determine which nationalities have significantly different degrees of satisfaction on the subsection of opportunities for promotion. Table XXVI indicates that Arab faculty

TABLE XXVI

DIFFERENCES IN JOB SATISFACTION BASED ON OPPORTUNITIES  
FOR PROMOTION BY NATIONALITY  
(SCHEFFE TEST)

Faculty Nationality Groups	Mean	Nationality Groups		
		1	2	3
Group 1 Jordanian (N=160)	24.2			
Group 2 Arab (N=30)	29.5		*	
Group 3 Alien (N=26)	19.5			

(\*) Denote pairs of groups significantly different at the 0.05 level

members (mean=29.5) were significantly more satisfied with the area of opportunities for promotion than were alien faculty members (mean=19.5).

TABLE XXVII

DIFFERENCES IN JOB SATISFACTION BASED ON JOB  
IN GENERAL BY NATIONALITY  
(SCHEFFE TEST)

Faculty Nationality Groups	Mean	Nationality Groups		
		1	2	3
Group 1 Jordanian (N=160)	37.5			
Group 2 Arab (N=30)	43.5	*		
Group 3 Alien (N=26)	38.9			

(\*) Denotes pairs of groups significantly different at the 0.05 level

The Scheffe test was performed to determine which groups are significantly different in the area of job in general with regard to nationality. Table XXVII indicates that Arab faculty members were significantly more satisfied with their job in general (mean=43.5) than were Jordanian faculty members (mean=37.5).

#### Additional Finding

Mean scores of all faculty members in each subsection of the Job Descriptive Index were computed. Table XXVIII

TABLE XXVIII

MEAN SCORES OF FACULTY JOB SATISFACTION BASED ON  
THE JOB DESCRIPTIVE INDEX SUBSECTIONS

Job Satisfaction Area	Mean Scores
Work in Present Job	35.04
Present Pay	27.31
Opportunities for Promotion	24.36
Supervision	30.72
Coworkers	28.94
Job in General	38.51

indicates that faculty members express the lowest job satisfaction in the area of opportunities for promotion, followed by the area of present pay. Faculty members express the highest satisfaction in the area of job in general, followed by the area of work in present job.

### Summary

The data in this study were obtained from 216 faculty members at Yarmouk University, Jordan. This chapter presents analyses of the data obtained in the study. The findings are based on eleven research questions. The major findings of this study are:

1. There is no significant difference in job satisfaction among faculty members with regard to gender based on scores for the subsections of the Job Descriptive Index. Male and female faculty members had the lowest mean scores in the area of opportunities for promotion.

2. There is no significant difference in job satisfaction among faculty members with regard to marital status based on scores for the subsections of the Job Descriptive Index. Married faculty members had the lowest mean scores in the area of opportunities for promotion. Single faculty members had the lowest mean score in the area of coworkers.

3. There is a significant difference in job satisfaction among faculty members in the areas of work in present job, and present pay with regard to age of faculty members. Faculty members more than 45 years old were significantly more satisfied in the areas of work in present job and present pay than faculty members between the ages of 35 and 45.

4. There is a significant difference in job satisfaction among faculty members in the areas of opportunities for promotion, supervision, and coworkers with regard to annual salary. Faculty members with an annual salary of more than JD6000 were significantly more satisfied in the areas of opportunities for promotion, supervision, and coworkers than faculty members with an annual salary of less than JD5000.

5. There is a significant difference in job satisfaction among faculty members in the areas of present pay, supervision, and job in general with regard to years of experience. Faculty members with more than 10 years of experience were significantly more satisfied in the areas of present pay, supervision, and job in general than faculty members with less than 5 years of experience.

6. There is a significant difference in job satisfaction among faculty members in the area of supervision with regard to faculty academic rank. Faculty members with the academic rank of professors were significantly more satisfied in the area of supervision than faculty members with the academic rank of assistant professor.

7. There is no significant difference in job satisfaction among faculty members with regard to their academic activities.

8. There is a significant difference in job satisfaction among faculty members in the area of coworkers with regard to faculty affiliation. Faculty members at the Faculty of Medicine were significantly more satisfied in the area of coworkers than faculty members at the Faculty of Art and Human and Social Sciences.

9. There is no significant difference in job satisfaction among faculty members with regard to the country in which the last degree was received.

10. There is a significant difference in job satisfaction among faculty members in the area of work in present job with regard to faculty tenure status. Tenured faculty members were significantly more satisfied than nontenured faculty members in the area of work in present job.

11. There is a significant difference in job satisfaction among faculty members in the areas of present pay, opportunities for promotion, co-workers, and job in general with regard to faculty nationality. Arab faculty members were significantly more satisfied than Jordanian faculty members in the areas of present pay and job in general. Arab faculty members were significantly more satisfied than alien faculty members in the area of opportunities for promotion.

12. Faculty members as a total group had the lowest mean score on job satisfaction in the area of opportunities for promotion followed by the area of present pay.

## CHAPTER V

SUMMARY, FINDINGS, DISCUSSION, CONCLUSIONS,  
AND RECOMMENDATION FOR FUTURE RESEARCH

This chapter consists of a summary of the purposes, methodology, and procedures of the study, followed by presentation of the findings as they pertain to the research questions. Based on the findings, discussion, conclusions and recommendations for future research are suggested.

## Summary

The problem of this study is job satisfaction of faculty members at Yarmouk University, Jordan. The methods and procedures utilized in this study were designed to accomplish the purposes of the study: (1) to measure and analyze job satisfaction among faculty members at Yarmouk University and (2) to compare the level of job satisfaction among faculty members on each subsection of the Job Descriptive Index with regard to faculty demographic variables.

The data collecting instruments consist of the faculty data sheet and the Job Descriptive Index for measuring job satisfaction. The Job Descriptive Index was developed by P. C. Smith and her associates. This instrument measures six areas of job satisfaction: work in present job, present pay, opportunities for promotion, supervision, coworkers,



and job in general. The data collecting instrument was administered to 350 faculty members in five faculties (colleges) at Yarmouk University: the Faculty of Science, the Faculty of Art and Human and Social Sciences, the Faculty of Economics and Administrative Sciences, the Faculty of Engineering, and the Faculty of Medicine. Usable questionnaires were returned by 216 (61.7%) of the total distributed questionnaires.

The data obtained from 216 returned questionnaires were analyzed. Mean scores of faculty members on each subsection were computed. One-way analysis of variance was utilized to determine if a significant difference existed on each subsection of the Job Descriptive Index with regard to the demographic variables of faculty members. When the one-way analysis of variance was found to be significant at the 0.05 level or greater, the Scheffe multiple comparison was utilized to locate which groups were significantly different at the 0.05 level.

### Findings

The major findings of this study based on the eleven research questions are presented below.

1. There is no significant difference in job satisfaction among faculty members with regard to gender based on scores for the subsections of the Job Descriptive Index. Male and female faculty members had the lowest mean scores in the area of opportunities for promotion.

2. There is no significant difference in job satisfaction among faculty members with regard to marital status based on scores for the subsections of the Job Descriptive Index. Married faculty members had the lower mean scores in the area of opportunities for promotion. Single faculty members had the lower mean scores in the area of coworkers.

3. There is a significant difference in job satisfaction among faculty members in the areas of work in present job and present pay with regard to the age of faculty members. Faculty members more than 45 years old were significantly more satisfied in the areas of work in present job and present pay than faculty members between the ages of 35 and 45.

4. There is a significant difference in job satisfaction among faculty members in the area of opportunities for promotion, supervision, and coworkers with regard to annual salary. Faculty members with an annual salary of more than JD6000 were significantly more satisfied in the areas of opportunities for promotion, supervision, and coworkers than faculty members with an annual salary less than JD5000.

5. There is a significant difference in job satisfaction among faculty members in the areas of present pay, supervision, and job in general with regard to years of experience. Faculty members with more than 10 years of

experience were significantly more satisfied in the areas of present pay, supervision, and job in general than faculty members with less than 5 years of experience.

6. There is a significant difference in job satisfaction among faculty members in the area of supervision with regard to faculty academic rank. Faculty members with the academic rank of professor were significantly more satisfied in the area of supervision than faculty members with the academic rank of assistant professor.

7. There is no significant difference in job satisfaction among faculty members with regard to their academic activities.

8. There is a significant difference in job satisfaction among faculty members in the area of coworkers with regard to faculty affiliation. Faculty members at the Faculty of Medicine were significantly more satisfied in the area of coworkers than faculty members at the Faculty of Art and Human and Social Sciences.

9. There is no significant difference in job satisfaction among faculty members with regard to the country in which the last degree was received.

10. There is a significant difference in job satisfaction among faculty members in the area of work in present job with regard to faculty tenure status. Tenured

faculty members were significantly more satisfied than nontenured faculty members in the area of work in present job.

11. There is a significant difference in job satisfaction among faculty members in the areas of present pay, opportunities for promotion, co-workers, and job in general with regard to faculty nationality. Arab faculty members were significantly more satisfied than Jordanian faculty members in the areas of present pay and job in general. Alien faculty members were more satisfied than Jordanian faculty members in the area of present pay. Arab faculty members were significantly more satisfied than Alien faculty members in the area of opportunities for promotion.

12. Faculty members had the lowest mean scores of job satisfaction in the area of opportunities for promotion followed by the area of present pay.

#### Discussion

The findings of this study revealed that the major source of satisfaction for faculty members is the work in present job. A comparison of the faculty satisfaction mean scores revealed that sex had no effect on faculty job satisfaction. This finding is consistent with that of Wozniak (1973), Sprague (1974), Poosawtsee (1973), Harrington (1980), Winkler (1982), and Hashemi (1984). This

finding differs, however, from that of Wangphanich (1984), Perry (1977), Hill (1983), Kposowa (1984), and Hutton (1985).

In this study, marital status had no effect on job satisfaction. Married faculty members and single faculty members were satisfied to the same level, which is consistent with the finding of Buxton (1971) but different from that of Fagbamiye (1981). Age was found to affect level of job satisfaction in the areas of work in present job and present pay. Faculty members 45 years or older were found to be the most satisfied. This finding is similar to that of Harshberger (1976), Poosawtsee (1973), Sprague (1974), and Hashemi (1984) and differs from that of Wozniak (1973) and Wangphanick (1984). Salary affected the the areas of opportunities for promotion, supervision, and co-workers. As the salary increased, the level of satisfaction in these areas increased. This finding is similar to that of Buxton (1971) but inconsistent with that of Wangphanich (1984). Years of experience affected the areas of present pay, supervision, and job in general. Faculty members with more than 10 years of experience were more satisfied in the areas of pay, supervision, and job in general. This finding is similar to that of Harshberger (1976), Sprague (1974), and Perry (1977) but differs from that of Wangphanich (1984).

Academic rank had an effect on supervision. Professors were found to be significantly more satisfied than assistant

professors in the area of supervision. This finding is similar to that of Perry (1977), Buxton (1971), and Harshberger (1976). Concerning the academic activities of faculty members no significant differences in any area of job satisfaction as measured by the Job Descriptive Index were found. This finding differs from that of Hashemi (1984).

Faculty affiliation had an effect on the area of co-workers. Faculty members in the Faculty of Medicine were more satisfied with their coworkers than faculty members in the Faculty of Art and Human and Social Sciences. This difference could be related to the fact that the Faculty of Art and Human And Social Sciences has many departments in different locations and the faculty members work in many different disciplines, unlike their colleagues in the Faculty of Medicine.

Faculty members indicated no significant differences with regard to the country in which the last degree was awarded. This finding is similar to that of Ageel (1984). In this study, tenured faculty members were found to be more satisfied than nontenured faculty members in the area of work in present job. This finding is similar to that of Hashemi (1984), Harshberger (1976), and Perry (1977), but differs from that of Winkler (1982).

Nationality of faculty members was found to affect the areas of present pay, opportunities for promotion, and job

in general. Arab faculty members and alien faculty members were found to be more satisfied than Jordanian faculty members in the area of present pay. This finding may reflect the fact that salaries for Arab and Alien faculty members attract them to Yarmouk University. Arab faculty members were more satisfied than Alien faculty members in the area of opportunities for promotion. Likewise, Arab faculty members were generally more satisfied than Jordanian faculty members.

In general, the findings of this study are consistent with the findings of studies of job satisfaction among faculty members in American universities as well as in other countries. One of the most significant findings of this study is that faculty members were least satisfied with opportunities for promotion, which reflects the need for administrators at Yarmouk University to consider this area as critical to improving job satisfaction.

#### Conclusions

Based on the findings of this study, the conclusions are as follows.

1. The major source of faculty job satisfaction is the work in present job. It seems that faculty members at Yarmouk University enjoy their work. The area of opportunities for promotion contributed the least to faculty job satisfaction.

2. Gender, marital status, academic activity, and the country in which the faculty member received the last degree have no effect on faculty job satisfaction.

3. There were significant differences in job satisfaction in one area or more of job satisfaction as measured by the Job Descriptive Index with regard to faculty age, annual salary, years of experience, academic rank, faculty affiliation, tenure status, and nationality.

4. Tenured professors over 45 years of age with an annual salary of more than JD6000 and more than 10 years of experience were the most satisfied faculty members at Yarmouk University.

5. Arab and alien faculty members expressed more satisfaction in the area of annual salary than Jordanian faculty members. In general, Arab faculty members were the most satisfied followed by alien faculty members, and the Jordanian faculty members were the least satisfied.

#### Recommendation for Future Research

1. Further research should be conducted in order to find other factors that could contribute to faculty job satisfaction.

2. This study should be duplicated in other universities in Jordan.

3. Further research should be conducted to compare job satisfaction among faculty members of public community colleges and private community colleges in Jordan.



4. Further research should investigate the perception of job satisfaction among faculty members in Jordan.

5. Further studies of Jordanian Universities should be conducted to determine an appropriate system for promotion and determination of salary scale.

## CHAPTER BIBLIOGRAPHY

- Ageel, H. A. (1982). Job satisfaction of staff members of Umm Al-Qura University in Makkah, Saudi Arabia (Doctoral Dissertation, Michigan State University, 1982). Dissertation Abstracts International, 43, 2836A.
- Buxton, T. H. (1971). A study of job satisfaction of teachers of education in eight selected colleges and universities (Doctoral Dissertation, The University on Nebraska, 1971). Dissertation Abstracts International, 32, 749A.
- Fagbamiye, E. O. (1981). The organization and administration of Nigerian University and the satisfaction and motivation of lecturers in some of those universities. Los Angeles, CA: Paper presented at the Annual Meeting of the American Educational Research Association. (ERIC Document Reproduction Service No. 201 266).
- Harrington, S. L. (1980). Job satisfaction of selected university faculty (Doctoral Dissertation, State University of New York at Buffalo, 1980). Dissertation Abstracts International, 41, 40A.
- Harshberger, H. F. (1976). Job satisfaction/dissatisfaction and the motivation to work of full-time university teaching faculty: An analysis (Doctoral Dissertation, North Carolina State University at Raleigh, 1975). Dissertation Abstracts International, 36, 5738A.
- Hashemi, A. S. (1984). An investigation of job satisfaction among faculty members of a large multi-purpose university in the Dallas-Fort Worth Metroplex. Unpublished Doctoral Dissertation. North Texas State University, Denton, TX.
- Hill, M. D. (1983). Some factors affecting the job satisfaction of community college faculty in Pennsylvania. Community/Junior College Quarterly, 7, 303-317.
- Hutton, J. B., & Jobe, M. E. (1985). Job satisfaction of community college faculty. Community/Junior College Quarterly, 9, 317-324.

- Kposowa, T. S. (1985). Faculty job satisfaction: Effects of relationships between chairperson's leadership behavior and chairperson's value system (Doctoral Dissertation, The Ohio State University, 1984). Dissertation Abstracts International, 45, 2333A.
- Perry, J. L. (1977). The interrelationship of job satisfaction and similarity in philosophic view within academic departments. Research in Higher Education, 7, 269-280.
- Poosawtsee, S. (1974). The relationship between preferred college environment and job satisfaction of public junior college faculty members of Minnesota (Doctoral Dissertation, University of Minnesota, 1973). Dissertation Abstracts International, 34, 6915A.
- Sprague, B. O. (1974). Job satisfaction and university faculty (Doctoral Dissertation, University of Kentucky, 1974). Dissertation Abstracts International, 35, 2018A.
- Wangphanich, P. (1984). Job satisfaction of faculty members at Srinakharinwirot University, Thailand (Doctoral Dissertation, University of Kansas, 1984). Dissertation Abstracts International, 46, 869A.
- Winkler, L. D. (1982). Job satisfaction of university faculty in the United States (Doctoral Dissertation, the University of Nebraska Lincoln, 1982). Dissertation Abstracts International, 43, 692A.
- Wozniak, L. C. (1973). A study of the relationship of selected variables and the job satisfaction dissatisfaction of music faculty in two-year colleges (Doctoral Dissertation, The Catholic University of America, 1973). Dissertation Abstracts International, 35, 2349A.

APPENDIX A

A COVER LETTER TO FACULTY MEMBERS AT YARMOUK UNIVERSITY

North Texas State University  
College of Education  
Division of Higher & Adult Ed.  
Denton, Texas 76203

Dear Faculty Member:

I am a doctoral candidate at North Texas State University majoring in higher education administration. My research topic is job satisfaction among faculty members at Yarmouk University.

The enclosed questionnaire consists of two parts; The faculty data sheet and the Job Descriptive Index (JDI). The major purpose of this study is to measure and analyze job satisfaction among faculty members at Yarmouk University.

Of course, your information will be held strictly confidential, and individual faculty members will not be identified nor will their responses be used individually. Please do not sign your name on this form. Return the questionnaire to the secretary of your department.

Your assistance in this study is greatly appreciated.

Sincerely,

Salameh Y. Tanash

Doctoral Candidate

APPENDIX B  
DATA COLLECTING INSTRUMENTS

## PART I

## FACULTY DATA SHEET

Instructions: Please check or respond in writing to the following items:

1. Your gender:
  - a) Male
  - b) Female
2. Your Marital Status:
  - a) Married
  - b) Single
3. Your Age:-----
4. Your Annual Salary in JD :-----
5. Total Years of Experience:-----
6. Your Academic Rank:
  - a) Professor
  - b) Associate Professor
  - d) Assistant Professor
7. The Nature of Your Academic Activity:
  - a) Teaching Only
  - b) Teaching and Administration
  - c) Teaching and Research
8. Your Primary Faculty Affiliation:
  - a) The Faculty of Science
  - b) The Faculty of Art & Human & Social Science
  - c) The Faculty of Economic & Adm. Science
  - d) The Faculty of Engineering
  - e) The Faculty of Medicine
9. In Which Country did you Receive your Last Degree?-----
10. Your Faculty Tenure Status:
  - a) Tenured
  - b) Nontenured
11. Your Nationality:
  - a) Jordanian
  - b) Arab
  - c) Alien

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These consist of pages:

Appendix B, pages 105-110 (The Job Descriptive Index)

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Microfilms  
International**

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## PART II

## THE JOB DESCRIPTIVE INDEX

Think of the work you do at present. How will do each of the following words or phrases describe your work? In the blank beside each word below, write

---Y--- for "Yes" if it describes your work

---N--- for "No" if it does NOT describe it

---?--- if you cannot decide

-----  
Work on Present Job

-----Fascinating

-----Routine

-----Satisfying

-----Boring

-----Good

-----Creative

-----Respected

-----Uncomfortable

-----Pleasant

-----Useful

-----Tiring

-----Healthful

-----Challenging

-----Too Much to do

-----Frustrating

-----Simple

-----Repetitive

-----Gives sense of accomplishment

Go on to the next page . . . .

Think of the pay you get now. How well do each of the following words or phrases describe your present pay? In the blank beside each word below, write

---Y--- for "Yes" if it describes your pay  
---N--- for "No" if it does NOT describe it  
---?--- if you cannot decide

-----  
Present Pay

----- Income adequate for normal expenses  
----- Fair  
----- Barely live on income  
----- Bad  
----- Insecure  
----- Less than I deserve  
----- Well paid  
----- Underpaid

Go on the next page . . . . .

Think of the opportunities for promotion that you have now. How well do each of the following words or phrases describe these? In the blank beside each word below, write

- Y--- for "Yes" if it describes your opportunities  
for promotion  
---N--- for "No" if it does NOT describe them  
---?--- if you cannot decide

-----  
Opportunities for Promotion

- Good opportunities for promotion  
----- Opportunities somewhat limited  
----- Promotion on ability  
----- Dead-end job  
----- Unfair promotion policy  
----- Infrequent promotions  
----- Regular promotions  
----- Fairly good chance for promotion

Go on to the next page . . . . .

Think of the kind of supervision that you get on your job. How well do each of the following words or phrases describe this? In the blank beside each word below, write

- Y--- for "Yes" if it describes the supervision you  
get on your job  
---N--- for "No" if it does NOT describe it  
---?--- if you cannot decide

-----  
Supervision

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

Go to the next page . . . . .

Think of the majority of the people that you work with now or the people you meet in connection with your work. How well do each of the following words or phrases describe these people? In the blank beside each word below, write

---Y--- for "Yes" if it describes the people you work with  
 ---N--- for "No" if it does NOT describe them  
 ---?--- if you cannot decide

-----  
 Coworkers

----- Stimulating  
 ----- Boring  
 ----- Slow  
 ----- Helpful  
 ----- Stupid  
 ----- Responsible  
 ----- Fast  
 ----- Intelligent  
 ----- Easy to make enemies  
 ----- Talk too much  
 ----- Smart  
 ----- Lazy  
 ----- Unpleasant  
 ----- Gossipy  
 ----- Active  
 ----- Narrow interests  
 ----- Loyal  
 ----- Stubborn

Go to the next page . . . . .

Think of your job in general. All in all, what is it like most of the time? In the blank beside each word below, write

---Y--- for "Yes" if it describe your job  
---N--- for "No" if it does NOT describe it  
---?--- if you cannot decide

---

Job in General

----- Pleasant  
----- Bad  
----- Ideal  
----- Waste of time  
----- Good  
----- Undesirable  
----- Worthwhile  
----- Worse than most  
----- Acceptable  
----- Superior  
----- Better than most  
----- Disagreeable  
----- Makes me content  
----- Inadequate  
----- Excellent  
----- Rotten  
----- Enjoyable  
----- Poor

---

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APPENDIX C

LETTER OF PERMISSION TO USE THE JOB DESCRIPTIVE INDEX

Bowling Green State University  
Department of Psychology  
Bowling Green, Ohio 43403-0228

July 7, 1986

Salameh Tanash  
115 Avenue G, # 220  
Denton, Texas 76201

Dear Mr. Tanash

We hereby grant you permission to reproduce 200 copies of the revised JDI provided the words "Copyright, 1985, Bowling Green State University" are included on each copy. The cost for reproducing is \$42.00 per 100 copies.

Sincerely,

Patricia C. Smith, Ph.D.  
Professor Emerita



APPENDIX D

LETTER OF PERMISSION TO CONDUCT THE RESEARCH  
AT YARMOUK UNIVERSITY, JORDAN

YARMOUK UNIVERSITY

---

(PR) 106/24/1783 August 13, 1986

Professor Dwane Kingery  
The J. C. Mathews Chair of Higher Education  
North Texas State University  
Denton, Texas 76203  
U. S. A.

---

Dear Prof. Kingery,

Thank you for your letter of July 10, 1986 concerning Mr. S. Y. Tanash's proposed collection of data for his doctoral research. I am pleased to advise that Mr. Tanash may collect the information he requires for the questionnaire enclosed to your aforesaid letter. Dr. Ali Zaghal, Acting Dean of the Faculty of Art and Human and Social Sciences, will cooperate with Mr. Tanash for follow up and coordination with concerned bodies in matters pertaining to the questionnaire.

With kind regards.

Sincerely,

Marwan Kamal  
Acting President

## BIBLIOGRAPHY

- Abreu, J. R. (1980). Job satisfaction of the faculty members of the schools of education in three universities granting doctor of philosophy in the state of Michigan (Doctoral Dissertation, The University of Michigan, 1980). Dissertation Abstracts International, 41, 1849A.
- Adams, J. S. (1963). Toward an understanding of inequity. Journal of Abnormal and Social Psychology, 67, 422-436.
- Ageel, H. A. (1982). Job satisfaction of staff members of Umm Al-Qura university in Makkah, Saudi Arabia (Doctoral Dissertation, Michigan State University, 1982). Dissertation Abstracts International, 43, 2836A.
- Aluko, M. A. (1983). Work motivation and perceptions of academic organizational climate: A Nigerian study. Unpublished Doctoral Dissertation. North Texas State University, Denton, TX.
- Andrews, I. R. (1967). Wage inequity and job performance: An experimental study. Journal of Applied Psychology, 51, 39-45.
- Avankian, N. A. (1971). An analysis of factors relating to the job satisfaction and dissatisfaction of faculty members in institutions of higher education (Doctoral Dissertation, State University of New York at Albany, 1971). Dissertation Abstracts International, 32, 1765A.
- Balazedeh, G. (1981). A comparative study of motivation to work and job satisfaction between male and female faculty members at a midwestern regional university (Doctoral Dissertation, University of Kansas, 1981). Dissertation Abstracts International, 42, 4313A.
- Bass, J. L. (1977). The motivation to teach. Journal of Higher Education, 48, 243-258.
- Brayfield, A. H., & Rothe, H. F. (1951). An index of job satisfaction. Journal of Applied Psychology, 35, 307-311.

- Brayfield, A. H., & Crockett, W. H. (1955). Employee attitudes and employee performance. Psychological Bulletin, 52, 396-424.
- Buxton, T. H. (1971). A study of job satisfaction of teachers of education in eight selected colleges and universities (Doctoral Dissertation, The University of Nebraska, 1971). Dissertation Abstracts International, 32, 749A.
- Carnegie Foundation for the Advancement of Teaching (1985). The faculty: Deeply troubled. Change, 17 (4), 31-34.
- Cooparat, P. (1978). Interactions of dogmatism and selected variables upon job satisfaction of university professors in Thailand (Doctoral Dissertation, The University of Oklahoma, 1978). Dissertation Abstracts International, 39, 3253A.
- Diener, T. (1985). Community college faculty job satisfaction. Community/Junior College Quarterly, 9, 347-357.
- Dittrich, J. E. & Carrell, M. R. (1979). Organizational equity perceptions, employee job satisfaction and departmental absence and turnover rates. Organizational Behavior and Human Performance, 24, 29-40.
- Donahue, J. M. (1979). A comparison of factors influencing job satisfaction and dissatisfaction of nursing faculty with faculty in other colleges in the Midwest (Doctoral Dissertation, The University of Iowa, 1978). Dissertation Abstracts International, 39, 4619A.
- Dunn, J. D. & Elvis, C. S. (1972). Management of personnel. New York: McGraw-Hill Book Company.
- Edmundson, J. C. (1970). An identification of selected items associated with faculty job satisfaction in the North Carolina system of community colleges (Doctoral Dissertation, North Carolina State University at Raleigh, 1969). Dissertation Abstracts International, 30, 4753A.
- Ewen, r. B., Smith, C. C., Hulin, C. L., & Locke, E. A. (1966). An empirical test of Herzberg Two-Factor theory. Journal of Applied Psychology, 50, 544-550.

- Fagbamiye, E. O. (1981). The organization and administration of Nigerian University and the satisfaction and motivation of lecturers in some of those universities. Los Angeles, CA: Paper Presented at the Annual Meeting of the American Educational Research Association. (ERIC Document Reproduction Service No. 201 266)
- Ferguson, G. A. (1981). Statistical analysis in psychology and education. (5th ed.). New York: McGraw-Hill Company.
- Filan, G. L., Okun, M. A., & Witter, R. A. (1986). Influence of ascribed and achieved social attitudes, value, and rewards on job satisfaction among community college faculty. Community/Junior College Quarterly, 10, 113-122.
- Finn, R. H., & Lee, S. M. (1972). Salary equity: Its determination, analysis, and correlates. Journal of Applied Psychology, 56, 283-292.
- French, W. L. (1986). Human resource management. Boston: Houghton Mifflin Company.
- Gibson, J. L., Ivancevich, J. M., & Donnelly, J. H. (1976). Organizations: Behavior, structure, processes. Dallas, TX: Business Publications, Inc.
- Goldstine, R. J., & Anderson, R. C. (1977). Attitudes of faculty toward teaching. Improving College and University Teaching, 25, 110-111.
- Gomez, L. R., & Balkin, D. B. (1984). Faculty satisfaction with pay and other job dimensions under union and nonunion conditions. Academy of Management Journal, 27, 591-602.
- Goodman, P. S., & Friedman, A. (1971). An examination of Adams' theory of inequity. Administrative Science Quarterly, 16, 271-288.
- Goodman, P. S. (1975). Effect of perceived inequity on salary allocation decisions. Journal of Applied Psychology, 60, 372-375.

- Griffin, M. E. (1983). Relationships between perceptions of collective bargaining, management style, and job satisfaction of mid-level administrators in Minnesota's community colleges (Doctoral Dissertation, University of Minnesota, 1982). Dissertation Abstracts International, 43, 3470A.
- Gruneberg, M. M. (1976). Job satisfaction. New York: John Wiley & Sons.
- Hall, D. T., & Nougaim, K. E. (1968). An examination of Maslow's need hierarchy in an organizational setting. Organizational Behavior and Human Performance, 3, 12-35.
- Halpern, G. (1966). Relative contributions of motivator and hygiene factors to overall job satisfaction. Journal of Applied Psychology, 50, 198-200.
- Harrington, S. L. (1980). Job satisfaction of selected university faculty (Doctoral Dissertation, State University of New York at Buffalo, 1980). Dissertation Abstracts International, 41, 40A.
- Harshberger, H. F. (1986). Job satisfaction/dissatisfaction and the motivation to work of full-time university teaching faculty: An analysis (Doctoral Dissertation, North Carolina State University at Raleigh, 1975). Dissertation Abstracts International, 36, 5738A.
- Hashemi, A. S. (1984). An investigation of job satisfaction among faculty members of a large multi-purpose university in the Dallas-Fort Worth Metroplex. Unpublished Doctoral Dissertation. North Texas State University, Denton, TX.
- Herzberg, F., Manser, B., & Snyderman, B. (1959). The motivation to work. New York: John Wiley & Sons.
- Herzberg, F. (1966). Work and nature of man. Cleveland: The World Publishing Company. Herzberg, F. (1968). One more time: How do you motivate employees? Harvard Business Review, 46(1), 53-62.
- Hill, M. D. (1983). Some factors affecting the job satisfaction of community college faculty in Pennsylvania. Community/Junior College Quarterly, 7, 303-317.

- Hinton, B. (1968). An empirical investigation of the Herzberg methodology and two-factor theory. Organizational Behavior and Human Performance, 3, 286-309.
- Hinton, B. L. (1972). The experimental extension of equity theory to interpersonal and group interaction situations. Organizational Behavior and Human Performance, 8, 434-449.
- Hoppock, R. (1935). Job satisfaction. New York: Harper and Brothers.
- Hoy, W. K., & Miskel, C. G. (1978). Educational administration: Theory, research, and practice. New York: Random House, Inc.
- Hulin, C. L., & Smith, P. C. (1967). An empirical investigation of two implications of two-factor theory of job satisfaction. Journal of Applied Psychology, 51, 396-402.
- Hutton, J. B., & Jobe, M. E. (1985). Job satisfaction of community college faculty. Community/Junior College Quarterly, 9, 317-324.
- Karoonlanjakorn, S. (1986). Job satisfaction among faculty members at non-metropolitan teachers colleges in central Thailand. Unpublished Doctoral Dissertation. North Texas State University, Denton, TX.
- Kposowa, T. S. (1985). Faculty job satisfaction: Effects of relationships between chairperson's leadership behavior and chairperson's value system (Doctoral Dissertation, The Ohio State University, 1984). Dissertation Abstracts International, 45, 2333A.
- Lacewell, W. E. (1983). Job satisfaction of full-time faculty in the community colleges and area post-secondary vocational-technical schools of Arkansas: An analysis based on Herzberg's motivator-hygiene theory (Doctoral Dissertation, University of Arkansas, 1983). Dissertation Abstracts International, 44, 1771A.
- Ladd, E. C., & Lipset, S. M. (1976a). What do professors like most about their jobs?. Chronicle of Higher Education, 12, 10.
- Ladd, E. C., & Lipset, S. M. (1976b). Nearly all professors are satisfied with their choice of an academic career. Chronicle of Higher Education, 12, 11.

- Lawler, E. E., & O'Gara, P. W. (1967). Effects of inequity produced by underpayment on work output, work quality, and attitudes toward the work. Journal of Applied Psychology, 51, 403-410.
- Lawler, E. E. (1968). Equity theory as a predictor of productivity and work quality. Psychological Bulletin, 70, 596-610. Lawler, E. E., & Suttle, J. L. (1972). A causal correlational test of the hierarchy concept. Organizational Behavior and Human Performance, 7, 265-289.
- Lawler, E. L., & Suttle, J. L. (1973). Expectancy theory and job behavior. Organizational Behavior and Human Performance, 9, 482-503.
- Lindsay, C. A., Edmond, M., & Leon, G. (1967). The Herzberg theory: A critique and reformation. Journal of Applied Psychology, 51, 330-339.
- Locke, E. A. (1969). What is job satisfaction? Organizational Behavior and Human Performance, 4, 309-336.
- Locke, E. A., Fitzpatrick, W., & White, F. M. (1983). Job satisfaction role clarity among university and college faculty. The Review of Higher Education, 6, 3434-365.
- Manthe, R. D. (1976). A job satisfaction and dissatisfaction study of the West Virginia University extension service (Doctoral Dissertation, The University of Wisconsin-Madison, 1976). Dissertation Abstracts International, 37, 3314A.
- May, B. R. (1978). A study of Herzberg's motivation hygiene theory of job satisfaction as it related to academic personal in selected small liberal art colleges (Doctoral Dissertation, University of Illinois at Urbana-Champaign, 1978). Dissertation Abstracts International, 39, 2816A.
- Mitchell, T. R., & Albright, D. W. (1972). Expectancy theory predictions of the satisfaction, effort, performance, and retention of naval aviation of officers. Organizational Behavior and Human Performance, 8, 1-16.
- Mitchell, T. R. (1974). Expectancy models of job satisfaction, occupational performance, and effort: A theoretical, methodological, and empirical appraisal. Psychological Bulletin, 81, 1053-1077.



- Moxley, L. S. (1977). Job satisfaction of faculty teaching higher education: An examination of Herzberg's dual-factor theory and porter's need satisfaction research. (ERIC Document Reproduction Service No. ED 139 349).
- Neumann, Y. (1978). Predicting faculty job satisfaction in university departments. Research in Higher Education, 9, 261-275.
- Novak, R. D. (1975). Preferred job reinforcers and the job satisfaction of faculty in Minnesota's area vocational technical institutes (Doctoral Dissertation, University of Minnesota, 1974). Dissertation Abstracts International, 35, 7799A.
- O'Connor, E. Y., Peters, L. H., & Gordon, S. M. (1978). The measurement of job satisfaction: Current practices and future consideration. Journal of Management, 4 (2), 17-26.
- Openshaw, H. (1980). Job satisfaction determinants among faculty and administrators: An application of Herzberg's motivation-hygiene model in higher education (Doctoral Dissertation, Gorgia State University, 1980). Dissertation Abstracts International, 41, 2470A.
- Pearson, D. A., & Seiler, R. E. (1983). Environmental satisfiers in academe. Higher Education, 12, 35-47.
- Perry, J. L. (1977). The Interrelationship of job satisfaction and similarity in philosophic view within academic departments. Research in Higher Education, 7, 269-280.
- Poosawtsee, S. (1974). The relationship between preferred college environment and job satisfaction of public junior college faculty members of Minnesota (Doctoral Dissertation, University of Minnesota, 1973). Dissertation Abstracts International, 34, 6915A.
- Porter, L. W. (1961). A study of perceived need satisfaction in bottom and middle management jobs. Journal of Applied Psychology, 45, 1-10.
- Porter, L. W. (1962). Job attitudes in management I: Perceived deficiencies in need fulfillment as a function of job level. Journal of Applied Psychology, 46, 375-384.

- Porter, L. W. (1963). Job attitudes in management II: Perceived deficiencies in needs as a function of job level. Journal of Applied Psychology, 47, 141-148.
- Prachadetsuwet, N. (1986). An investigation into the sources of job satisfaction and dissatisfaction as perceived by faculty members and administrators in selected private higher education institutions in Thailand (Doctoral Dissertation, Northern Illinois University, 1985). Dissertation Abstracts International, 46, 1828A.
- Pritchard, R. D., Dunnette, M. D., & Jorgenson, D. O. (1972). Effects of perceptions of equity and inequity on worker performance and satisfaction. Journal of Applied Psychology, 56, 75-94.
- Pritchard, R. D., & Deleo, P. J. (1973). Experimental test of the valence-instrumentality relationship in job performance. Journal of Applied Psychology, 57, 264-270.
- Ramsey, J. K. (1982). Faculty perceptions of institutional quality and vitality. Jacksonville, FL: Florida Association of Community Colleges. (ERIC Document Reproduction Service No. ED 229 084)
- Robinson, J. P., Athanasiou, R., & Head, K. B. (1969). Measures of occupational attitudes and occupational characteristics. Ann Arbor, MI: University of Michigan, Institute of Social Research.
- Saidian, M. (1981). A study of job satisfaction as measured by the Minnesota satisfaction questionnaire as applied to selected male and female vocational and technical teachers of Esfahan, Iran (Doctoral Dissertation, University of Kansas, 1980). Dissertation Abstracts International, 41, 4378A.
- Schwab, D. P., & Heneman, H. G. (1970). Aggregate and individual predictability of the two-factor theory of job satisfaction. Personnel Psychology, 23, 55-66.
- Schwab, D. P., Devitt, W. H., & Cumming, L. L. (1971). A test of adequacy of the two-factor theory as predictor of self-report performance effects. Personnel Psychology, 24, 293-304.
- Scott, W. G., & Mitchell, T. R. (1976). Organizational theory: A structural and behavioral analysis. Homewood, Illinois: Richard D. Irwin, Inc.

- Sell, R. G., & Shiply, P. (1979). Satisfaction in work design: Ergonomics and other approaches. London: Taylor & Francis Ltd.
- Sheha, A. A. (1981). The relationship of faculty perceptions of the nature and bases of power to faculty satisfaction and productivity in an Egyptian university (Doctoral Dissertation, The Pennsylvania State University, 1981). Dissertation Abstracts International, 42, 2531A.
- Smith, P. C., Kendall, L. M., & Hulin, C. L. (1969). The measurement of satisfaction in work and retirement. Chicago, IL: Rand McNally and Company.
- Sorgiovanni, T. J. (1966). Satisfaction and dissatisfaction of teachers (Doctoral Dissertation, The University of Rochester, 1966). Dissertation Abstracts International, 27, 1235-1236A.
- Soroinelli, M. D., & Near, J. P. (1986). Relationships between work and life away among university faculty: Gender and rank effect. San Francisco, CA: Annual Meeting of the American Educational Research Association. (ERIC Document Reproduction Service No. ED 270 013)
- Sprague, B. O. (1974). Job satisfaction and university faculty (Doctoral Dissertation, University of Kentucky, 1974). Dissertation Abstracts International, 35, 2018A.
- SPSS Inc. (1986). SPSS-X: User's guide (2nd ed.). Chicago, IL: Marketing Department, SPSS Inc.
- Steers, R. M., & Porter, L. W. (1979). Motivation and work behavior. New York: McGraw-Hill Book Company.
- Sudsawasd, S. (1980). A study of factors measuring faculty job satisfaction at selected universities in Thailand (Doctoral Dissertation, Iowa State University, 1980). Dissertation Abstracts International, 41, 964A.
- Taylor, F. A. (1967). Institutional environment factors that affect junior college faculty job satisfaction in selected public junior college of Texas (Doctoral Dissertation, The University of Texas at Austin, 1967). Dissertation Abstracts International, 28, 3954A.

- Telly, C. S., French, W. L., & Scott, W. G. (1971). The relationship of inequity to turnover among hourly workers. Administrative Science Quarterly, 16, 164-172.
- Vatthaisong, A. (1983). A study of job satisfaction and dissatisfaction among faculty members in teacher training institutions in Thailand ( Doctoral Dissertation, George Peabody College for Teachers of Vanderbilt University, 1982). Dissertation Abstracts InternAtional, 44, 468A.
- Velez, G. (1972). A study of faculty satisfaction-dissatisfaction with the intrinsic and extrinsic job factors in Columbian universities (Doctoral Dissertation, The Florida State University, 1972). Dissertation Abstracts International, 33, 997A.
- Vroom, V. H. (1964). Work and motivation. New York: John Wiley & Sons.
- Wangphanich, P. (1984). Job satisfaction of faculty members at Srinakharinwirot University, Thailand (Doctoral Dissertation, University of Kansas, 1984). Dissertation Abstracts International, 46, 869A.
- Wanous, J. P., & Lawler, E. (1972). Measurement and meaning of job satisfaction. Journal of Applied Psychology, 56, 95-105.
- Waters, H. K., & Waters, C. W. (1972). An empirical test of five versions of the two-factor theory of job satisfaction. Organizational Behavior and Human Performance, 7, 18-24.
- Wickstrom, R. A. (1971). An investigation into job satisfaction among teachers (Doctoral Dissertation, University of Oregon, 1971). Dissertation Abstracts International, 32, 1249A.
- Willie, R., & Stecklein, J. E. (1982). A three decade comparison of college faculty characteristics, satisfaction, activities, and attitudes. Research in Higher Education, 16, 81-83.
- Winkler, L. D. (1982). Job satisfaction of university faculty in the United States (Doctoral Dissertation, The University of NebraskaLincoln, 1982). Dissertation Abstracts International, 43, 692A.

- Wofford, J. C. (1971). The motivational bases of job satisfaction and job performance. Personnel Psychology, 24, 501-518.
- Wood, O. R. (1976). A research project: Measuring job satisfaction of the community college staff. Community College Review, 3, 57-67.
- Wozniak, L. C. (1973). A study of the relationship of selected variables and the job satisfaction dissatisfaction of music faculty in two-year colleges (Doctoral Dissertation, The Catholic University of America, 1973). Dissertation Abstracts International, 35, 2349A.
- Wren, D. A. (1979). The evolution of management thought (2nd ed.). New York: John Wiley & Sons.
- Yarmouk University. (1985). The birth of Yarmouk University. Irbed, Jordan: Department of Cultural and Public Relations.
- Yeager, S. J. (1981). Dimensionality of the Job Descriptive Index. Academy of Management Journal, 24, 205-212.