

JOB SATISFACTION IN PUBLIC HORTICULTURE

by

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A thesis submitted to the Faculty of the University of Delaware in partial fulfillment of the requirements for the degree of Master of Science in Public Horticulture Administration.

Spring 1995

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ACKNOWLEDGMENTS

First and foremost, I would like to thank the Longwood Foundation, Inc. for my Fellowship. It is only through its generosity and support that this research and thesis were made possible.

My sincere appreciation goes to my committee, Barry R. Morstain, James E. Swasey, and Kiran Taunk. They selflessly gave much time and energy to guide and support me and my research.

I am grateful to Geraldine Zuka for her assistance, guidance, and humor during my time in the Program. My fellow classmates, Ellen Bennett, Carl Haefner, Elayna Singer, and Barbara Skye, have been unending sources for humor, support, challenge, and friendship during our two years together.

Additionally, I am indebted to my parents, Paul V. and Delores M. Larkin for their love, support, guidance, encouragement, and prayers over the years.

Finally, thanks go to Bowling Green University's Institute of Tests & Measures for use of the Job Descriptive Index and the Job in General. The kind people at the Institute also patiently provided help in the form of consultation. The JDI and JIG are

reprinted by permission. For copyright permission and additional information on the JDI and JIG, contact Dr. Patricia Smith, Department of Psychology, Bowling Green University, Bowling Green, Ohio 43403.

TABLE OF CONTENTS

ACKNOWLEDGMENTS.....	iii
LIST OF TABLES.....	vii
LIST OF FIGURES	viii
ABSTRACT	ix
Chapter 1	1
INTRODUCTION.....	1
Rationale for Research	1
Purpose of Research	2
Background on Job Satisfaction.....	3
Definition.....	3
Measures of Job Satisfaction.....	4
Chapter 2	7
METHODS.....	7
Measures.....	7
Job Descriptive Index (JDI) and Job in General (JIG).....	7
Supplemental Questions.....	9
Sample	10
Institutions	10
Employees.....	11
Data Collection	12
Data Entry and Analysis	13
Description of Respondents	13
Statistical Analysis.....	16
Chapter 3	17
RESULTS AND DISCUSSION.....	17
Results	17
Scores on the JDI scales and the JIG	17
Differences between groups	23
“Free Response”	27

Discussion	29
Chapter 4	32
SUMMARY AND CONCLUSIONS.....	32
Recommendations for future research.....	34
APPENDICES	36
APPENDIX A	37
Measurement Instrument	37
APPENDIX B.....	50
Exemption from Human Subjects Review.....	50
APPENDIX C	52
Institutional Members of AABGA in the Mid-Atlantic Region.....	52
APPENDIX D	54
Cover Letter.....	54
BIBLIOGRAPHY	56

LIST OF TABLES

Table 1: Statistics on employee numbers at institutions agreeing to participate in research.	12
Table 2: Number and percentage of respondents by gender and job	14
Table 3: Number and percentage of respondents by race	15
Table 4: Number and percentage of respondents by job description.....	15
Table 5: Statistics on respondents for their Age, and Years: in Current Position, at Present Organization, and in the Field of Public Horticulture.....	16

LIST OF FIGURES

Figure 1: Public horticulture employees' reported satisfaction with the Work on Present Job.	18
Figure 2: Public horticulture employees' reported satisfaction with the Present Pay they receive.	19
Figure 3: Public horticulture employees' reported satisfaction with their Opportunities for Promotion.	20
Figure 4: Public horticulture employees' reported satisfaction with the Supervision they receive.	21
Figure 5: Public horticulture employees' reported satisfaction with their Co-Workers.	22
Figure 6: Public horticulture employees' reported satisfaction with the Job in General (JIG).	23
Figure 7: Mean JDI and JIG scale scores by gender	24
Figure 8: Mean JDI and JIG scores by job class.	25
Figure 9: Mean JDI and JIG scores by job description.	27

ABSTRACT

Much has been written about how job satisfaction may affect production, morale and quality of work. However, most job satisfaction studies have been conducted in the area of manufacturing and management, with none being conducted in the field of public horticulture. Job satisfaction was examined in 245 employees from 30 public horticulture institutions in the Mid-Atlantic region of the American Association of Botanic Gardens and Arboreta (AABGA) using the Job Descriptive Index (JDI) and Job in General (JIG). The purpose of the research was to determine if differences in job satisfaction existed based on an individual's job (management, horticulture, or other), gender, or other demographic information. In general, public horticulture employees reported satisfaction with Work on Present Job, Supervision, Co-Workers, and Job In General; dissatisfaction with Opportunities for Promotion; and are ambivalent about Present Pay. However, significant differences ($p < 0.05$) were seen between men and women on satisfaction with Present Pay, and between management, horticulture and other staff on Work on Present Job, Present Pay, and Opportunities for Promotion.

Chapter 1

INTRODUCTION

Rationale for Research

Job satisfaction has been studied for around 60 years; the first intensive study of job satisfaction was published by Hoppock (1935). Since then, numerous studies have been conducted and published. According to Locke (1976), over 3000 articles and dissertations have been published on this subject. This commonly cited number is easily an underestimate.

Research in the area of job satisfaction has centered on the areas of manufacturing, management, and health care. Little research has been conducted in the area of not-for-profit organizations outside the health care and education fields, and no research, was found in the area of public horticulture.

Job satisfaction appears to be important in many fields. Indeed, according to Cranny et al. (1992) job satisfaction has an effect on the physical and mental well-being of individual employees, and because it affects job-related behaviors, influences productivity and profitability in organizations. Moreover, according to Smith, et al. (1969) and Jewell and Siegall (1990), increasing satisfaction is of humanitarian

importance, and should therefore be a goal in itself. It appears however that research in the area of job satisfaction in public horticulture has been neglected. Job satisfaction can have an effect on recruiting and retention, in addition to understanding and enhancing the skills and the people in public horticulture. If public horticulture is to be a viable and rewarding career field, job satisfaction *must* be studied.

Purpose of Research

There seems to be little turnover of employees at public gardens, and according to Locke (1976), low turnover rates are correlated with job satisfaction. Thus, one could posit, including the author, that public horticulture employees are satisfied with their jobs. However, this has never been verified.

This research was conducted to determine what differences exist in job satisfaction among employees at public horticulture institutions, studying such factors as:

1. position (e.g., management, gardening/horticulture, maintenance, retail, clerical, education, and other),
2. sex, race, and other demographic information, and
3. full-time, part-time/seasonal employees.

The information obtained by this research could prove useful in several arenas. If indeed there is a high incidence of job satisfaction in the field of public horticulture, this research could be used as a recruiting tool for the industry, academia and other

training areas. Professionals in the field could use this information to promote their discipline. Career and guidance counselors could use the information to direct people into this field.

If, however, the incidence of job satisfaction is low, the research could indicate several areas in which the field needs to increase job satisfaction. Additionally, if there is a difference in job satisfaction in the various arenas of public horticulture work (e.g., clerical, gardeners, maintenance, management, etc.), or demographic groups, the research could point to areas the field needs to change to best meet the job satisfaction needs of all groups.

Background on Job Satisfaction

Definition

Job satisfaction is defined as “an attitude based on an affective (feeling) evaluative response to a job situation” (Jewell and Siegall 1990, 501). Thus, if people like their job more than they dislike, then one can assume they are satisfied with the job.

Three major concepts in measuring this attitude have emerged in the years job satisfaction has been studied: job satisfaction as a global concept, as a faceted concept, and as a fulfillment of needs (Jewell and Siegall 1990). An overview of these concepts provides the framework and background for how the author decided which measurement concept to use.

Measures of Job Satisfaction

Global

Job satisfaction measurement instruments based on this concept are the simplest and easiest to administer. According to this theory, job satisfaction is one-dimensional, and can be summed up in a simple answer. For example, Vecchio (1980) used the following question when examining the job quality-job satisfaction relationship: "On the whole, how satisfied are you with the work you do—would you say that you are very satisfied, moderately satisfied, a little dissatisfied, or very dissatisfied?" (p.481).

Global job satisfaction measurement instruments are easy to administer and score, have no development costs, and make sense to the person being questioned. However, it is difficult to ascertain if people are answering the same question (Jewell and Siegall 1990). In the example of Vecchio (1980), some respondents could answer on the basis of pay, some on the basis of job security, and others on the basis of the work they actually do. That is where faceted measures enter the picture.

Faceted

The faceted model of job satisfaction assumes that employee satisfaction with different aspects of a job can vary independently, and should therefore be measured separately. Among the facets which can be examined are work load, job security, compensation, working conditions, general management practices, and opportunities for growth and development (Jewell and Siegall 1990).

The number and types of facets are determined by the research problem being investigated, and can vary from study to study. It is not necessary for the researcher to develop a measurement tool for each facet being studied. There are a large number of scales and measurement tools available from which a researcher can choose (Jewell and Siegall 1990).

Fulfillment of Needs

The last primary theory of measuring job satisfaction is whether or not an individual's needs are being fulfilled by the job. This theory was first proposed by Porter in 1961. In his study, Porter asked participants to respond, on a scale of 1 (min.) to 7 (max.), to three questions about a series of 15 statements. The questions Porter used were:

1. How much is there now?
2. How much should there be?
3. How important is this to me?

On the basis of responses to each statement, job satisfaction is measured by the discrepancy between "how much is there now?" and "how much should there be?"

The smaller the difference, the greater the satisfaction.

For example, one of the statements concerning security needs is "The *feeling of security* in my management position." The respondent would answer the three questions. The difference between "how much is there now?" and "how much should

there be?” is computed. The question “how important is this to me?” gives the investigator the relative strength of each need for the respondent (Porter, 1961).

Over time, the needs fulfillment approach to measuring job satisfaction has become less popular. The instruments are often difficult to score, and to compare relative to other measures (Jewell and Siegall 1990).

It should be noted that on all these measures of job satisfaction, the researcher must rely on the honesty of the survey respondents, that they will answer the questions based on how they actually “feel”. Additionally, none of the tools specifically measure job satisfaction; rather, they measure “reported” job satisfaction. This is because respondents are asked to describe how they feel about a particular item, and are free to answer however they want.

There are other methods to measure job satisfaction, each with their respective pros and cons. However, these three models are the most generally accepted. It is with this background and understanding of the various ways to measure job satisfaction that the researcher chose to use a faceted and overall measure of satisfaction, the Job Descriptive Index (JDI) and Job in General (JIG), respectively.

Chapter 2

METHODS

Measures

Job Descriptive Index (JDI) and Job in General (JIG)

Significant research has been conducted to identify what primary facets contribute to job satisfaction. While the number of facets have varied from study to study, five facets have consistently emerged (Cross, 1973; Smith et al. 1969). The Job Descriptive Index measures job satisfaction across these five different facets of the job:

- Satisfaction with Work
- Satisfaction with Pay
- Satisfaction with Promotions
- Satisfaction with Supervision
- Satisfaction with Co-Workers

The JDI was developed by Dr. Patricia Smith et al. (1969) to generate scores indicative of satisfaction with these discriminably different aspects of the work situation. It was expected that employees would have different feelings corresponding to these different aspects of the job (e.g., job enrichment), and that each of these satisfactions would be an outcome of different aspects of the work situation and have

different relationships with other workplace variables (e.g., turnover). Additionally, it was assumed that measures of these sub-areas were relatively independent and that workers would be able to discriminate among them (Balzer et al. 1990). After a few revisions, additional testing, and validation, the JDI has become one of the most commonly used job satisfaction measurement tools.

For each of the five facets, the JDI lists several phrases or adjectives. For the Work on Present Job, Supervision and Co-Workers facets, there are 18 adjectives or phrases; for Pay and Promotions there are 9. The instrument requires the respondent to answer “Yes”, “No”, or “?” (if the person cannot decide) as to whether the phrase or adjective describes the person’s job (see **Appendix A**). The survey is then scored for each of the five areas using a scoring key (Balzer et al. 1990).

In contrast to the JDI’s facet measurement, the Job in General was developed to provide an overall measurement of job satisfaction. Although the five scales of the JDI provided the beginning of a diagnostic strategy for identifying strong and weak points in the principal areas of job satisfaction, they did not provide the information necessary to assess overall satisfaction. The JIG was therefore developed to provide a global, long-term evaluation of the job. The JIG was developed in 1989 by Ironson et al., and has shown over time to be a valid and reliable measure of overall job satisfaction. The instrument consists of 18 adjectives or descriptive phrases, and is administered and scored in the same manner as the JDI (**Appendix A**).

Supplemental Questions

An institutional code was put on each of the surveys so that returns from specific institutions could be grouped together. This was for tracking purposes, and the respondents were not asked their names, thus anonymity was assured (see **Appendix A**). Demographic items were added to the beginning of the JDI to collect additional information about the respondents (**Appendix A**). The information requested of respondents included:

- Job Description (Clerical/Support Staff, Management, Gardening/Horticulture, Retail, Research, Education, Maintenance, and Other)
- Age
- Sex
- Race
- Job Classification (Full Time, Part-time/Seasonal)
- Years in Current Position
- Years at Present Organization, and
- Years in the Field of Public Horticulture.

Additionally, supplemental questions were added after the JIG to see if other factors affected and were correlated with job satisfaction. These items asked respondents to respond on a scale of 1 (Disagree Strongly) to 5 (Agree Strongly) as opposed to the JDI and JIG's "Y", "N", and "?" responses. These items explored the respondents attitudes about the organization at which they work, and about the job they do. A blank sheet of paper was also included so respondents could respond in

their own words about what they like most and least about their job and organization (Appendix A).

Sample

Before any research could be conducted, a research proposal was submitted to the Associate Provost for Research at the University of Delaware to receive exemption from having to get Human Subjects Review Committee approval for the research. This was required before performing research of any kind on human subjects. A copy of the exemption letter is in **Appendix B**.

Institutions

Contacts at all 54 institutional members (as of May 17, 1994) of the mid-Atlantic Region of the American Association of Botanical Gardens and Arboreta (AABGA) were identified and called to determine if their institution would be appropriate, and if they would be willing to have their institution and employees participate in the research (**Appendix C**). Institutions were deemed inappropriate if for example, they were simply a grounds maintenance crew for an organization. Organizations needed to have public horticulture professionals working on-site, and have some sort of labeling, collections or educational mission.

Thirty-one appropriate institutions agreed to participate in the research. These public horticulture institutions are diverse, and included zoos, historic houses, museums, arboreta and botanical gardens, among others. Some are affiliated with the

federal government, some with state, county or city government, and some are supported by private endowments.

Employees

Only employees who were in the “public horticulture” area of an institution were asked to participate. For example, at an historic house, with a garden, only those employees who were directly supervised or part of the horticulture department were surveyed. So, there may be Clerical/Support Staff at the institution (i.e., the historic house), but the horticulture department does not have any Clerical/Support Staff, therefore, none of the Clerical/Support Staff at that institution would be asked to participate. However, an arboretum may have a maintenance crew which maintains the boiler. While they may not have direct horticultural responsibilities, they would be considered part of the public horticulture area of the institution since the entire institution is dedicated to public horticulture. It was assumed that if an employee was in the horticulture department at an institution, that is the area with which they affiliated themselves. Additionally, if the organization was a “straight” public horticulture institution, it was assumed that all the employees affiliated themselves with public horticulture.

At the 31 institutions, 559 employees were employed in the public horticulture arena. Some institutions had as few as 1 employee, while others had as many as 75 employees (Table 1).

Table 1: Statistics on employee numbers at institutions agreeing to participate in research.

CATEGORY	NUMBER
Minimum	1
Maximum	75
Mean number of employees	18.03
Standard Deviation	21.03
Median number of employees	10
Mode	6
Total Employees	559

Data Collection

Survey packets were mailed to all appropriate employees (N=559) at the 31 institutions in August 1994. The surveys were individually sealed with a cover letter (Appendix D) and a postage paid return reply envelope. At all but one institution, the packets were mailed to the contact at that institution for distribution to the employees. At one institution, the packets were mailed to each employee's home address at the request of the contact at that institution.

Respondents were instructed in the letter and the survey not to put their name anywhere on the survey, and were assured that their anonymity would be preserved. Additionally, respondents were instructed to return their surveys in the postage-paid envelope provided by August 31, 1994. By taking these measures it was hoped participation would be as high as possible.

Data Entry and Analysis

All completed surveys were taken to the University of Delaware's Computing and Network Services Department for entry onto the University's mainframe computer system. A total of 246 surveys were completed and returned, for a return rate of 44.01%. Surveys arrived in various states of completion; a JDI scale may not have been completed, or some demographic information was not provided. Since each of the JDI scales, and the JIG, stand alone, it was decided that all surveys would be used in analysis.

Surveys were entered by technicians twice, and the resulting files compared. In this way, verification that the data had been entered correctly was ensured. The resulting data file was then employed to describe the sample which replied to the survey, to score the JDI and JIG scales according to the scoring key, and to conduct statistical analysis. Scores on each of the JDI scales, and the JIG, can range from 0 to 54. When scoring the JDI instrument, the scores for satisfaction with Present Pay, and Opportunities for Promotion were doubled to comply with this range, and to conform to scoring instructions. All these steps were conducted by the researcher using SPSS for UNIX.

Description of Respondents

A relatively even number of men and women responded to the survey, as can be seen in Table 2. Not all jobs were represented equally. Accordingly, for analysis purposes, Clerical, Retail, Research, Education, Maintenance, and No Response were

Table 2: Number and percentage of respondents by gender and job

	Female	Male	No Response	Row Total
Clerical	17 6.9%	3 1.2%	- -	20 8.1%
Management	20 8.1%	38 15.4%	- -	58 23.6%
Horticulture	42 17.1%	59 24.0%	2 0.8%	103 41.9%
Retail	4 1.6%	1 0.4%	- -	5 2.0%
Research	5 2.0%	4 1.6%	- -	9 3.7%
Education	19 7.7%	3 1.2%	- -	22 8.9%
Maintenance	- -	9 3.7%	- -	9 3.7%
Other	5 2.0%	5 2.0%	- -	10 4.1%
No Response	1 0.4%	6 2.4%	3 1.2%	10 4.1%
Column total	113 45.9%	128 52.0%	5 2.0%	246 100.0%

combined with Other. This made the job classes used for analysis purposes

Management, Horticulture, and Other.

The responses based on race were heavily biased toward Caucasian (Table 3).

The reason for the bias is not clear since information on the racial differentiation of the field of public horticulture was not found. However, due to this strong bias, no analysis based on race was conducted since it would not prove to be statistically significant with this sample size.

Table 3: Number and percentage of respondents by race

	Number	Percentage
African American	12	4.9%
Asian	5	2.0%
Caucasian	225	91.5%
Hispanic/Latin American	0	0.0%
Native American	1	0.4%
Other	1	0.4%
No Response	2	0.8%
Total	246	100.0%

On the basis of job description, Full-time employees were heavily represented (75.6%), while Part-time and Seasonal employees together only made up 23.6% of the responses (Table 4). Accordingly, Part-time and Seasonal employees were grouped together for purposes of analysis.

Table 4: Number and percentage of respondents by job description

	Number	Percentage
Full-time	186	75.6%
Part-time	39	15.9%
Seasonal	19	7.7%
No Response	2	0.8%
Total	246	100.0%

Finally, Table 5 describes the reported ages, years in current position, years at present organization, and years in the field of public horticulture. This information was used as background, and was not used for conducting statistical analysis.

Table 5: Statistics on respondents for their Age, and Years: in Current Position, at Present Organization, and in the Field of Public Horticulture

Note that all numbers are given in years.

	Minimum	Maximum	Mean	Standard Deviation	Median	Mode	No Response
Age	17	73	40.11	11.20	39	38	9
Current Position	1	54	5.29	6.14	3	1	2
Present Organization	1	39	6.80	6.46	5	1	2
In Field of Public Hort	1	48	11.16	8.60	10	1	1

Statistical Analysis

Analyses were conducted to determine if there were significant differences on JDI and JIG scale means based on gender, job, and job description. T-tests were conducted on the gender and job description means, while an analysis of variance (ANOVA) was conducted on the job means. All analyses were conducted at a 0.05 or lower confidence level for statistical significance.

Chapter 3

RESULTS AND DISCUSSION

Results

Scores on each of the JDI scales, and the JIG, can range from 0 to 54. According to Balzer et al. (1990), scores of 22 and below on the various JDI scales and the JIG, indicate dissatisfaction; scores of 32 and above indicate satisfaction, and scores between 22 and 32 indicate ambivalence about that particular aspect of the job.

Scores on the JDI scales and the JIG

Work

Public horticulture employees, across all groups, report that they are satisfied with the Work on their present job (mean=38.21, Figure 1). By examining the means on the various subgroups, it appears that all groups, regardless of gender, job or job description are satisfied with their Work on their present job. However, reported satisfaction appears to be highest among employees working in Management (mean=41). Results of T-tests to determine significance are in **Differences between groups** (page 23).

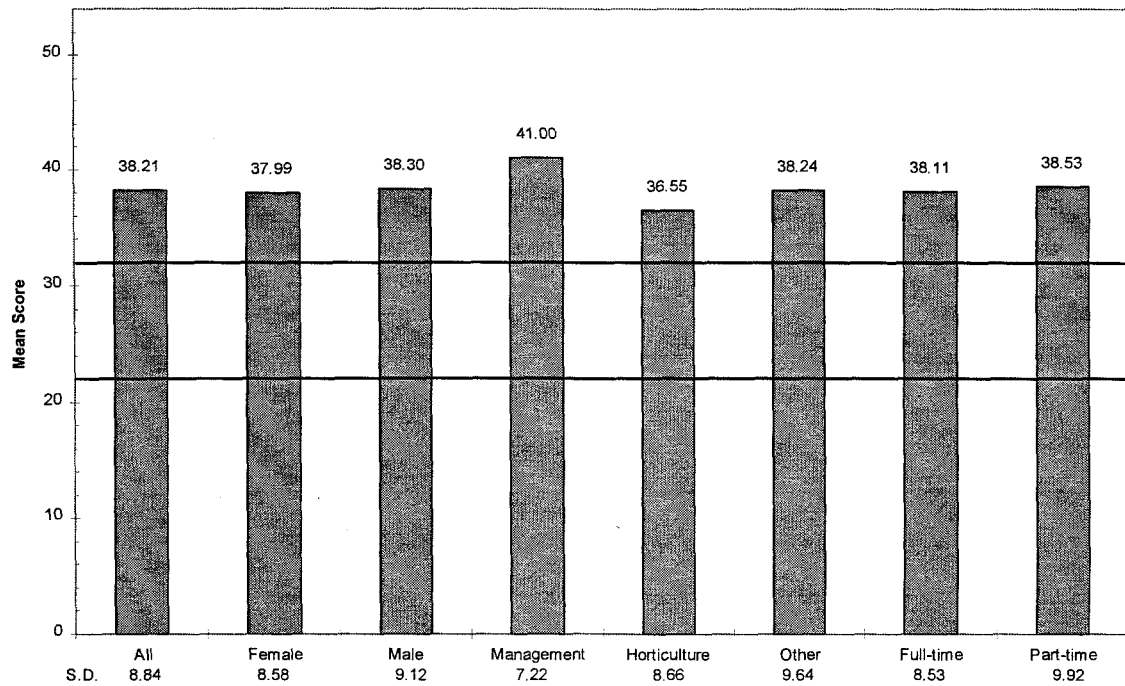


Figure 1: Public horticulture employees' reported satisfaction with the Work on Present Job.

Note that scores above 32 indicate satisfaction, while scores below 22 indicate dissatisfaction. Scores which fall between 22 and 32 indicate ambivalence.

Pay

Satisfaction with Present Pay showed greater variation in the reported satisfaction than with Work on Present Job. Employees in public horticulture as a group tends to be ambivalent about their Present Pay (mean = 25.66, Figure 2).

However, when one takes a closer look at the data, it appears that Management is satisfied with their Present Pay (mean = 33.02), while employees working in Horticulture and Part-time employees are dissatisfied with their Present Pay

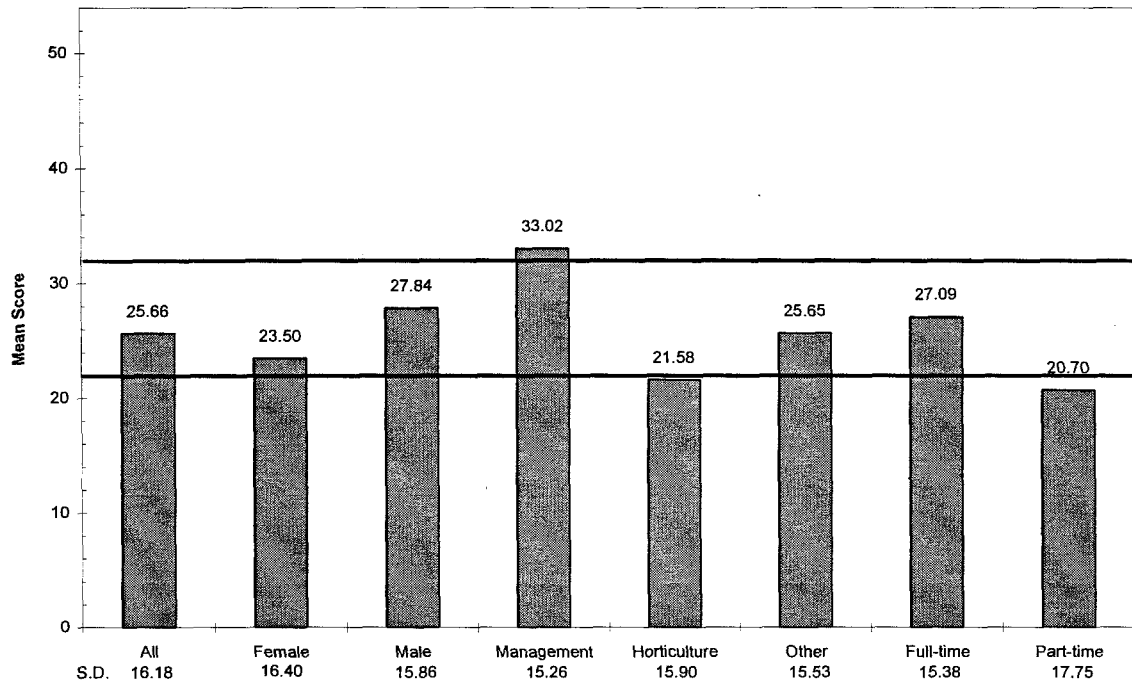


Figure 2: Public horticulture employees' reported satisfaction with the Present Pay they receive.

Note that scores above 32 indicate satisfaction, while scores below 22 indicate dissatisfaction. Scores which fall between 22 and 32 indicate ambivalence.

(means=21.58 and 20.70, respectively). All other groups report they are ambivalent about the Present Pay they receive.

Opportunities for Promotion

With Opportunities for Promotion, employees in all groups reported they are dissatisfied with the Opportunities for Promotion which are available to them (mean=15.47, Figure 3). Further analysis by gender, job and job description shows this reported dissatisfaction holds true for all groups. It is interesting to note that this

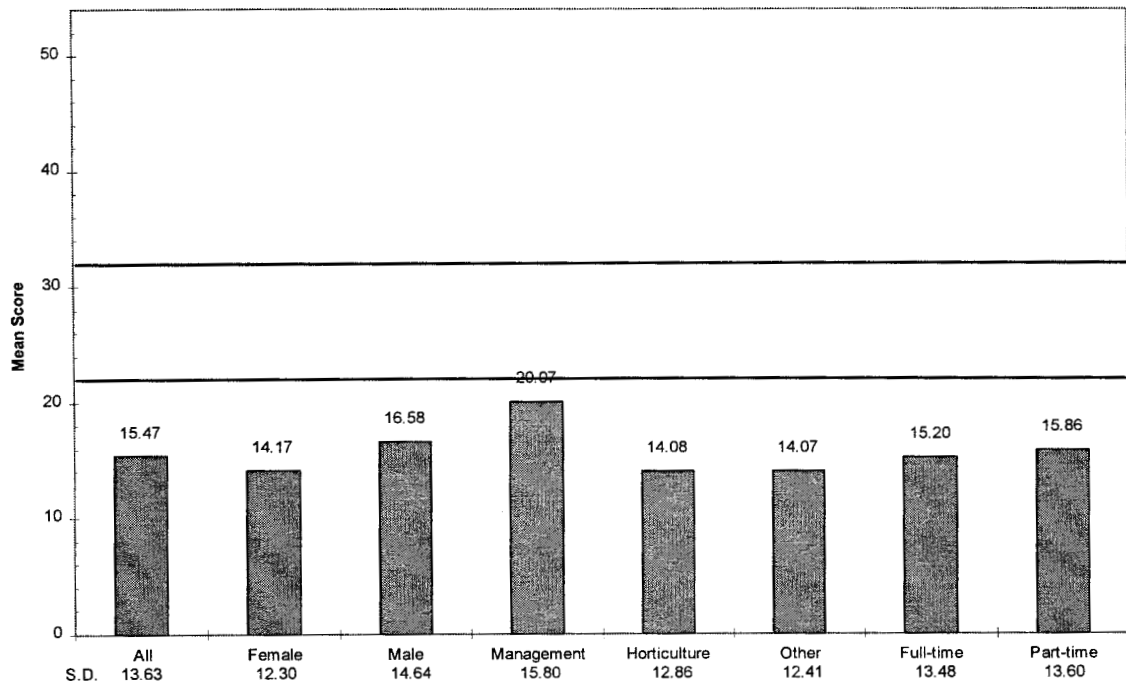


Figure 3: Public horticulture employees' reported satisfaction with their Opportunities for Promotion.

Note that scores above 32 indicate satisfaction, while scores below 22 indicate dissatisfaction. Scores which fall between 22 and 32 indicate ambivalence.

is the only scale on which all groups consistently reported that they were dissatisfied with an aspect of their job.

Supervision

All groups reported that they were satisfied with the Supervision they receive (Figure 4). Interestingly, Part-time employees reported the highest amount of satisfaction with Supervision (mean = 42.67), while Full Time employees reported a

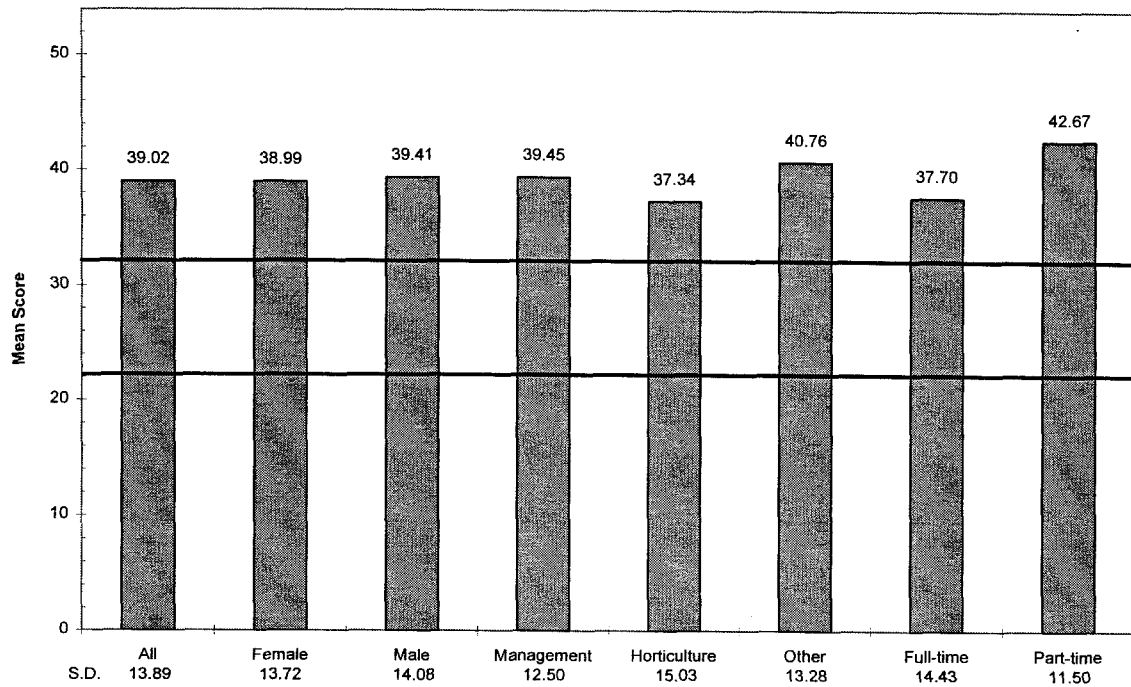


Figure 4: Public horticulture employees' reported satisfaction with the Supervision they receive.

Note that scores above 32 indicate satisfaction, while scores below 22 indicate dissatisfaction. Scores which fall between 22 and 32 indicate ambivalence.

lower satisfaction level (mean = 37.70). This trend for Part-time employees to report higher satisfaction than Full Time continued into satisfaction with Co-Workers.

Co-Workers

As with many of the other scales, all groups reported that they were satisfied with their Co-Workers (Figure 5). The mean score of 40.57 for all the respondents is the highest score for any of the JDI scales; only the score on the JIG was higher.

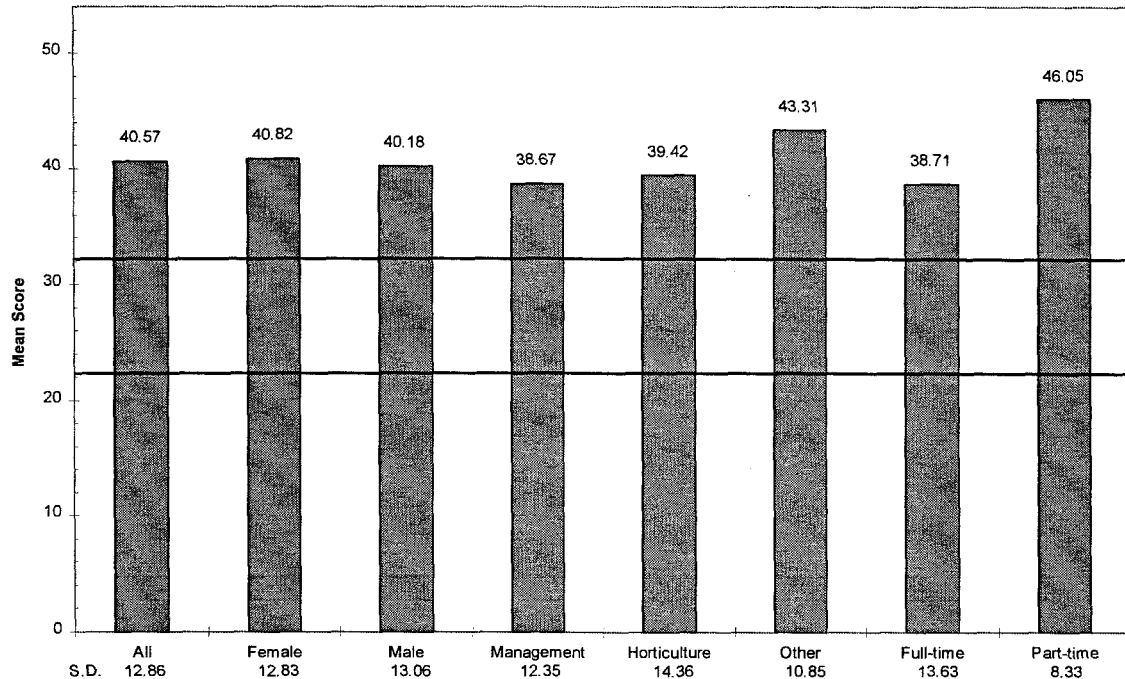


Figure 5: Public horticulture employees' reported satisfaction with their Co-Workers.

Note that scores above 32 indicate satisfaction, while scores below 22 indicate dissatisfaction. Scores which fall between 22 and 32 indicate ambivalence.

Job in General

It appears from the responses, all groups are globally satisfied with the Job in General (Figure 6). Part-time employees again reported slightly higher levels of satisfaction (mean = 46.39) on this scale than Full Time employees (mean = 44.75). To determine if these differences were significant, it is necessary to examine the statistical data within the various groups, on the various scales.

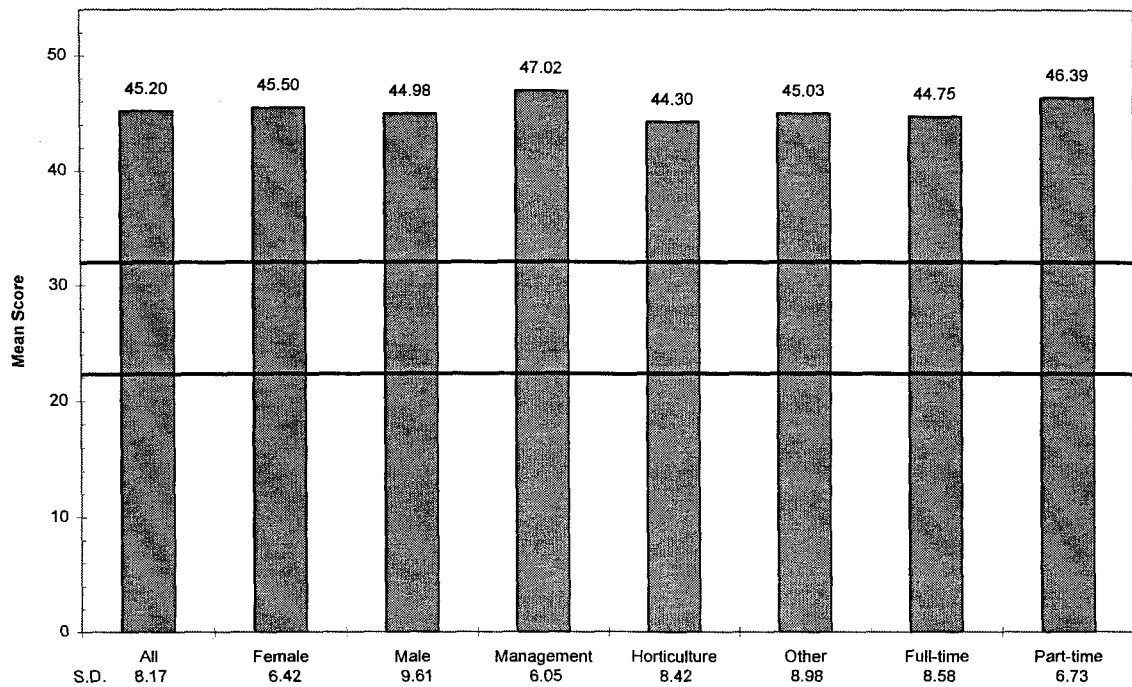


Figure 6: Public horticulture employees' reported satisfaction with the Job in General (JIG).

Note that scores above 32 indicate satisfaction, while scores below 22 indicate dissatisfaction. Scores which fall between 22 and 32 indicate ambivalence.

Differences between groups

Gender

From the data, it appears that men are slightly more satisfied than women with the Work on Present Job (mean=38.30 versus 37.99) and the Supervision they receive (39.41 versus 38.99, Figure 7). There seems to be a greater satisfaction difference between men and women on satisfaction with their Present Pay (27.84 versus 23.50) and Opportunities for Promotion (16.58 versus 14.17). Women on the other hand

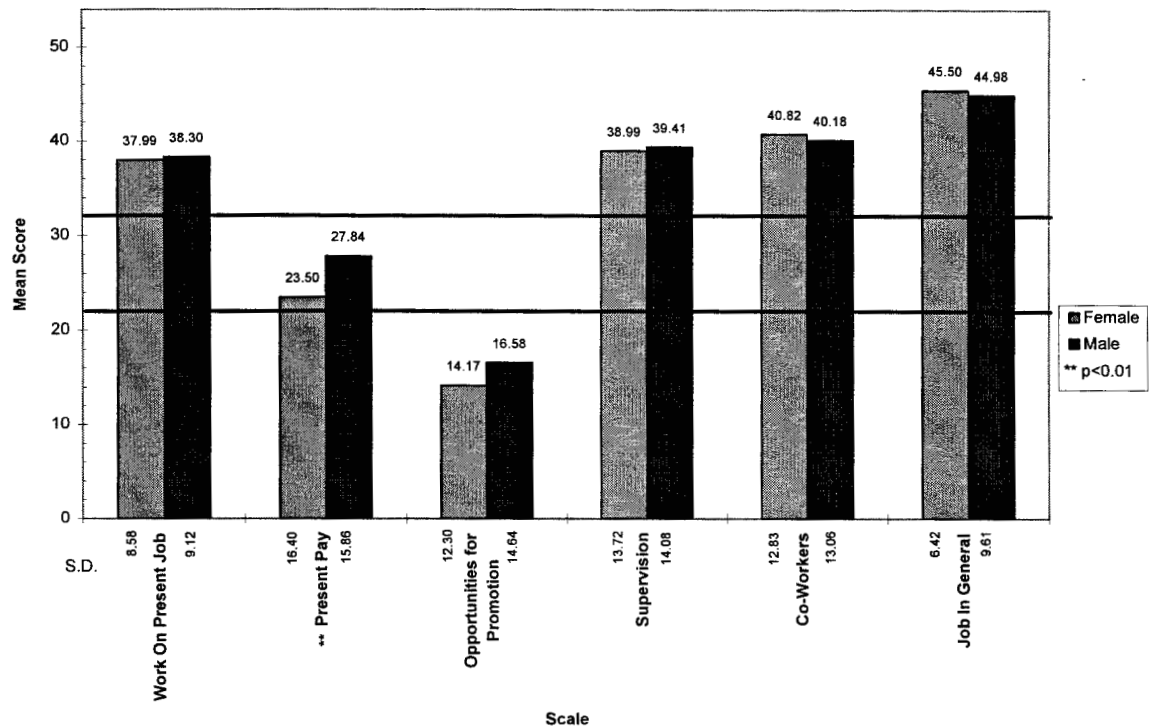


Figure 7: Mean JDI and JIG scale scores by gender

Note that scores above 32 indicate satisfaction, while scores below 22 indicate dissatisfaction. Scores which fall between 22 and 32 indicate ambivalence.

reported modestly more satisfaction than men on their Co-Workers (40.82 versus 40.18), and on the Job in General (45.50 versus 44.98). A T-test was applied to the data to determine if any of these differences were significant. Only the difference in reported satisfaction with Present Pay proved to be significant below the 0.05 level ($p=0.009$).

Job classes

Individuals in the different job classes reported that they were satisfied with the Work on Present Job, the Supervision they receive, and the Job in General (Figure 8). Managers reported higher satisfaction with the Work on Present Job, and the Job in General, than Horticulture or Other employees. However, on satisfaction with Supervision and Co-Workers, Other employees reported moderately higher satisfaction than either Management or Horticulture.

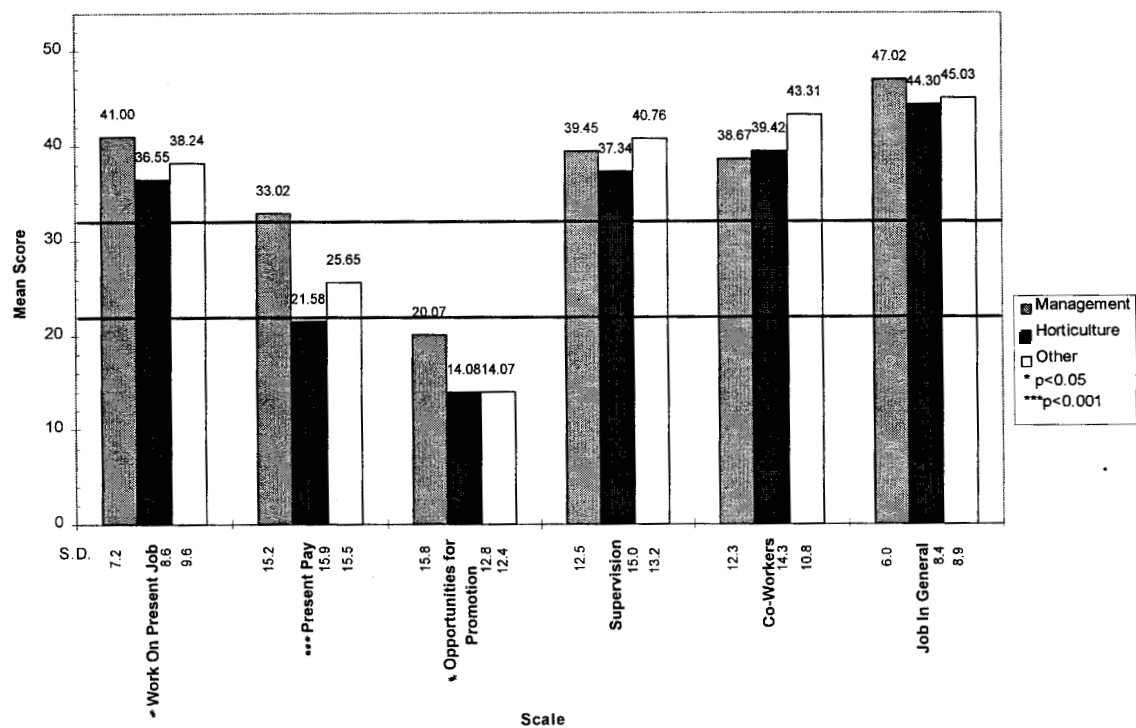


Figure 8: Mean JDI and JIG scores by job class.

Note that scores above 32 indicate satisfaction, while scores below 22 indicate dissatisfaction. Scores which fall between 22 and 32 indicate ambivalence.

Individuals in the various job classes reported dissatisfaction with Opportunities for Promotion. However, Management reported higher satisfaction than Horticulture or Other employees. Additionally, Management reported they were satisfied with their Present Pay, while employees who work in Horticulture reported dissatisfaction, and Other employees scores were consistent with ambivalence.

An ANOVA was applied on the data to determine if these observed differences were significant at levels below 0.05. Significant differences were observed between the jobs on satisfaction with Work on Present Job ($p=0.045$), Present Pay ($p=0.000$), and Opportunities for Promotion ($p=0.018$).

Job Description

It appears that Part-time employees are generally equally satisfied as Full-time employees on their Work on Present Job (mean=38.53 versus 38.11) and Opportunities for Promotion (15.86 versus 15.20). Part-time employees seem more satisfied than Full-time employees with Supervision (42.67 versus 37.70), Co-Workers (46.05 versus 38.71), and the Job in General (46.39 versus 44.75). Full time employees are more satisfied than Part-time employees on only one scale, Present Pay (27.09 versus 20.70). However, both groups are dissatisfied with their Opportunities for Promotion, and Full Time employees are ambivalent about their Present Pay, while Part-time employees are dissatisfied (Figure 9).

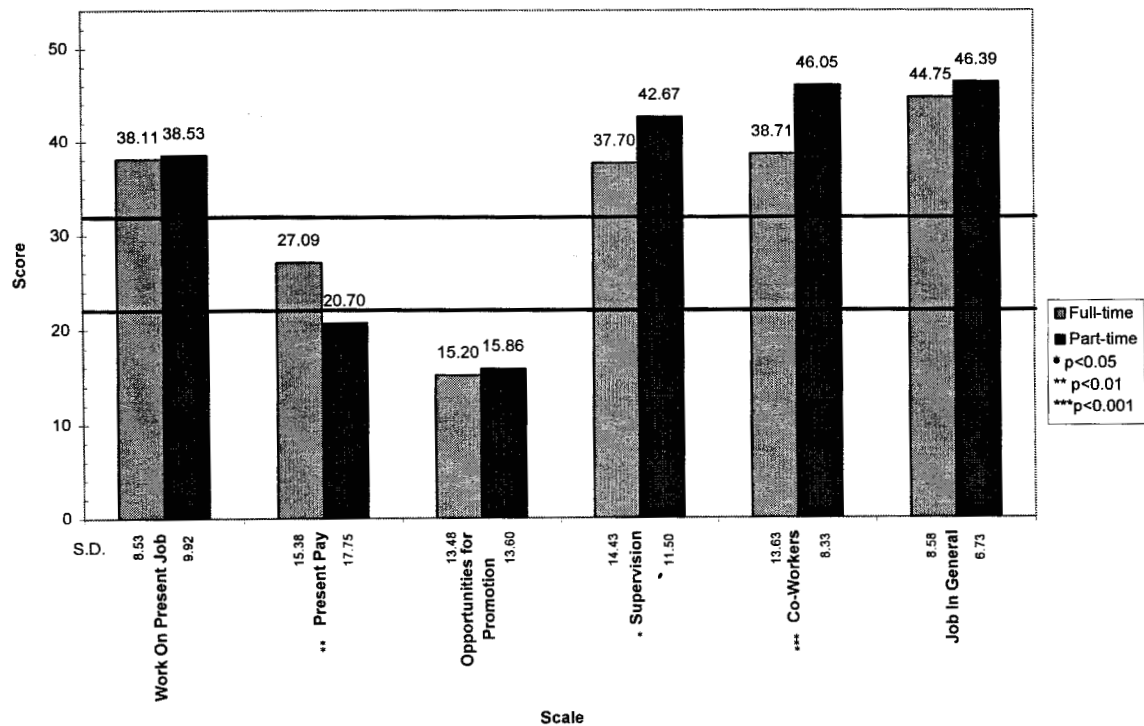


Figure 9: Mean JDI and JIG scores by job description.

Note that scores above 32 indicate satisfaction, while scores below 22 indicate dissatisfaction. Scores which fall between 22 and 32 indicate ambivalence.

A T-test was employed to determine if the observed differences were significant below the 0.05 level. Satisfaction levels on Present Pay ($p=0.009$), Supervision ($p=0.019$), and Co-Workers ($p=0.000$) proved to be significant between these two groups.

“Free Response”

The responses in the “free response” area of the survey (**Appendix A**) supported some of what the JDI and JIG means showed. Individual responses also showed other areas which may affect job satisfaction in public horticulture.

When asked what they liked least about their job or organization, people often commented that they did not feel that they were paid enough for the work they did, or that they were just dissatisfied with their pay. This supports the results which showed ambivalence with Present Pay among most employees, and dissatisfaction with Present Pay with Horticulture and Part-Time employees.

Again, when asked what they liked least about their job or organization, some people commented that they perceived that the “organization” felt the plants were more important than the employees. With others, it was a deeper sense of not being recognized as they commented, “I know that I am being taken for granted.” and “...I am powerless, or *feel* powerless.”

Two items showed up repeatedly in the “free response” section of the survey which may indicate areas of satisfaction for employees. The first is the idea that the individual, and the organization at which s/he works is somehow helping the environment. The idea that stewardship and a “bigger picture” related to the work one does was mentioned several times.

The other item which was repeatedly mentioned by respondents as a most liked part of their job, was that they feel as if they are constantly learning. One person went so far as to say, “As long as you are learning, any job can be fun.”

To determine what the JDI, JIG scores and the anecdotal results mean to the field of public horticulture and its employees, it is necessary to look to past research.

Discussion

It is a traditional belief that job satisfaction causes behavior. It was assumed that a satisfied worker was more diligent in general and therefore, more productive. Some research seems to support this concept.

Overall performance ratings by supervisors have been found to be higher for more satisfied individuals (Smith et al. 1969). Cooperativeness has also been rated higher for more satisfied employees (Bateman & Organ, 1983). In other situations, scrap rates and accidents have been negatively correlated with satisfaction (Mangione & Quinn, 1975). So, since public horticulture employees reported that they are satisfied with the Work on Present Job, one could infer employees are highly productive and efficient.

However, as evidence has accumulated, it became apparent that merely feeling good or grateful about one's work did not automatically lead to higher performance (Brayfield & Crockett, 1955). Moreover, a dissatisfied person may or may not decrease performance, depending on the situation. For example, if performance is closely monitored and jobs are scarce, or if pay is tied to performance and output is under the individual's control, performance may not vary with satisfaction. Similarly, if a person is likely to be discharged for absences, dissatisfaction may not be accompanied by an increase in absences. Therefore, even though public horticulture employees are

dissatisfied with the Opportunities for Promotion, they may not act on that dissatisfaction for fear of retribution, or being passed-up for a promotion.

Correlations have not proven satisfaction affects behavior. Indeed, the opposite may be true (Lawler & Porter, 1969). A person may behave in certain ways and then report his or her satisfaction to correspond to the behaviors he or she performs. For example, having worked hard all day replacing an annual bed, an employee may infer that the work must have been satisfying. Additionally, working hard may have brought about a reward (praise, bonus, or promise of benefits) which, in turn, caused an increase in satisfaction.

Finally, satisfaction may not enter into the causal sequence at all. Satisfaction may be a by-product or epiphenomenon of the work that, in turn, causes an individual to report satisfaction in certain ways. Thus, satisfaction may not be a direct consequence of the work situation, his or her earlier performance, and so on; in this case, it may not be a cause of other work-related attitudes or behaviors. So, even though employees report satisfaction with their Co-Workers, it may not affect how they work together.

However, even if satisfaction does not enter into the causal chain, it is still an important and useful construct. Its correlation with behavior may make it a useful symptom of or clue to organizational dysfunction. By using the data as a barometer, it can best be used to determine in what areas the field of public horticulture needs to

work to increase employee satisfaction, and to indicate in what areas the field is meeting the satisfaction needs of employees. From the data it is apparent that public horticulture employees are dissatisfied with their Opportunities for Promotion. It is also clear that there are differences in the amount of satisfaction men and women, and the various jobs, report on their Present Pay. By attempting to mitigate these reported differences, and increasing satisfaction in areas of low satisfaction (e.g., Opportunities for Promotion), public horticulture institutions can better serve those people who make their institutions work.

Finally, satisfaction may affect performance indirectly. For example, suppose the addition or improvement of a company benefit changed employees' perceived value of remaining on their jobs. The increased intention to stay might lead the persons to set higher goals for their performance, leading to increased output. Increased satisfaction could also accompany this sequence, and measurement of satisfaction would therefore indicate that change was taking place. It is therefore necessary to regularly examine satisfaction in the workplace to determine if changes in an organization are affecting satisfaction levels in the workplace.

Chapter 4

SUMMARY AND CONCLUSIONS

It is apparent from this research that public horticulture employees are satisfied with many facets of their job, including their Work on Present Job, Supervision, Co-Workers, and the Job in General. This reported satisfaction is consistent regardless of gender, job class, and job description.

However, there are aspects of the job with which employees are not satisfied, and actually report dissatisfaction. Employees reported dissatisfaction with the Opportunities for Promotion available to them at their respective institutions. Additionally, there are significant differences in satisfaction levels on Present Pay, particularly between job classes, gender, and job description. Only management reported satisfaction with Present Pay, while Horticulture and Part-time employees reported dissatisfaction; all other groups reported to be ambivalent about their Present Pay. This apparent displeasure with pay was further exemplified in comments in the “free response” area of the questionnaire.

It seems, therefore, that public horticulture employees are satisfied with their work, and the people with whom they work, but not with compensation they receive

for that work. In some cases however, the issue is not just material compensation, rather it is recognition.

Therefore, it seems necessary that management regularly monitor satisfaction levels in their organization. This need not be a “formal,” standardized measurement instrument. In the “free response” area of the survey, many respondents thanked me for listening to them, and allowing them to voice their opinions. It is important, however, for management to act on the information they discover, and not do this as a token exercise. If indeed differences exist between different job groups, efforts should be made to alleviate those differences. If there are areas of low satisfaction, management should look at ways to try to improve it.

It is interesting to note that even though public horticulture employees are dissatisfied about their Opportunities for Promotion, and are not satisfied with their Present Pay, it appears that people are staying in the field. From Table 5 (page 16), it is apparent that half of the people working in public horticulture have worked at their present organization more than five years, and have been working in the field of public horticulture for more than ten years. As stated earlier, Locke (1976) says that this low turnover rate indicates high levels of satisfaction. However, this research has shown that people are not satisfied with the compensation they receive. There must be something else motivating people to choose public horticulture as a career field, and to

want to “stick with it.” It is finding this motivation which could provide interesting and rewarding areas for research.

Recommendations for future research

Job satisfaction research is obviously important in other fields, as evidenced by the number of articles and studies conducted on the subject (Smart and Morstain 1975). Research needs to continue, therefore, in the field of public horticulture so we can better understand our employees, and how to make the working environment a better place.

One aspect of the job which was not directly studied in this research is on how the actual environment in which the work takes place may affect job satisfaction. Many people commented that the part they like the most about their job is that they are able to work outside.

Beyond motivational aspects of the job, it is necessary to return to, and study satisfaction. Specifically, research could be conducted at institutions where satisfaction levels are high, and examine management styles, work loads, and other factors which might have an effect on satisfaction levels for employees. Additionally, it would be important to look at satisfaction levels over time, specifically to see if levels vary with the seasons. This may be important, since this research was conducted during August, and levels of satisfaction may vary from season to season.

Finally, the issue of race and satisfaction in public horticulture needs to be addressed. Less than 10% of the respondents were not Caucasian. It is not known if public horticulture is not that racially diverse, or if other races simply chose not to respond. In either case, it is necessary to examine satisfaction levels among all employees in public horticulture, so that the field can better meet the needs of all people.

APPENDICES

APPENDIX A

Measurement Instrument

Job Satisfaction in Public Horticulture

August 1994

Organization #: _____

If you have any questions or comments, contact:

Patrick S. Larkin
University of Delaware
Longwood Graduate Program
153 Townsend Hall
Newark, DE 19717-1303

(302)831-2517

©Bowling Green University, (JDI), 1975, 1985

©Bowling Green University, (JIG), 1982, 1985

Go on to the next page.....

DIRECTIONS

Note that all responses are confidential and cannot be traced to you. Your honesty in all responses is greatly appreciated.

Please record all answers in the appropriate area on the sheets provided.

When you have completed all the questions, place the questionnaire in the reply envelope provided, and drop in the mail. No postage is necessary.

Please circle the item below which best describes your *JOB DESCRIPTION*:

Clerical/Support Staff

Management

Gardening/Horticulture

Retail (Gift, Book or Plant Shop)

Research

Education

Maintenance

Other (please specify)

What is your *AGE*? _____ years

Please circle your *SEX*:

Female

Male

Go on to the next page.....

Please circle the item below which best describes your
RACE:

- African-American
- Asian
- Caucasian (White)
- Hispanic/Latin American
- Native American
- Other

Please circle the item below which best describes how
your *JOB IS CLASSIFIED*:

- Full time
- Part time
- Seasonal

About how long have you been in your *CURRENT POSITION*?
_____ years

About how long have you been at your *PRESENT ORGANIZATION*?
_____ years

About how long have you been working *IN THE FIELD OF HORTICULTURE*?
_____ years

Go on to the next page.....

Think of the work you do at present. How well does each of the following words or phrases describe your work? In the blank beside each word or phrase 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 does each of the following words or phrases describe your present pay? In the blank beside each word or phrase 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

 Income provides luxuries

 Insecure

 Less than I deserve

 Well paid

 Underpaid

Go on to the next page

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

 Good chance for promotion

 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 does each of the following words or phrases describe this? In the blank beside each word or phrase 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
- Has favorites
- Tells me where I stand
- Annoying
- Stubborn
- Knows job well
- Bad
- Intelligent
- Poor planner
- Around when needed
- Lazy

Go on 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 does each of the following words or phrases describe these people? In the blank beside each word or phrase 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

CO-WORKERS (PEOPLE)

- 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 on 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 or phrase below, write

 Y for "Yes" if it describes 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

Here are some opinions that people elsewhere say about where they work and their organization. Regarding your situation, what are your views?

In the blank beside each word or phrase, write

1 for "Disagree Strongly"

2 for "Disagree"

3 for "Not Sure"

4 for "Agree"

5 for "Agree Strongly"

WHERE I WORK, MY ORGANIZATION:

 listens to employees, about how things could be done

 keeps us posted as to what is happening

 lets people know when they've done a good job

 usually just tells us "what to do"

 seems mostly interested in having a job get done, period

 makes employees feel like they are part of a team

 is fair in how it treats individuals

 overlooks a poor effort, nothing is said or done

 doesn't take a real interest in their employees

 helps people learn new things, develop new skills

 Overall, this organization genuinely cares about its employees

Go on to the next page.....

Here are some opinions that people elsewhere say about their own job. Regarding your situation, what are your views?

In the blank beside each word or phrase, write

___1___ for "Disagree Strongly"

___2___ for "Disagree"

___3___ for "Not Sure"

___4___ for "Agree"

___5___ for "Agree Strongly"

REGARDING MY OWN JOB:

___ provides me with a variety of things to do

___ for any advancement, is really a "dead-end" job

___ gives me some sense of accomplishment

___ let's me work with people I like

___ is generally repetitive, if not boring

___ makes me feel that what I do really matters

Go on to the next page....

In your own words, please answer the following questions:

What do like most about:
your organization? your job?

What do you like least?

Thank you for your opinions and comments. Please place the questionnaire in the return envelope and drop it in the mail. No postage is necessary.

APPENDIX B

Exemption from Human Subjects Review

20 July 1994

Mr. Patrick S. Larkin
Longwood Graduate Program
Campus

Dear Mr. Larkin:

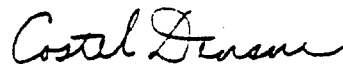
Subject: Human subjects approval for the project "Job Satisfaction in Public Horticulture"

The above-referenced proposal, which you submitted for human subjects approval, will qualify as research exempt from full Human Subjects Review Board review under the following category:

Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless (1) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects, and (2) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

Please notify the Human Subjects Review Board if you make any changes in this project.

Sincerely,



Costel D. Denson
Vice Provost for Research
Chair, Human Subjects Review Board

cc: James E. Swasey

APPENDIX C

Institutional Members of AABGA in the Mid-Atlantic Region

Delaware

Longwood Graduate Program
 Mt. Cuba Center
 Rockwood Museum
 Winterthur

Washington DC

Dumbarton Oaks
 National Zoological Park
 Smithsonian Institution
 U.S. Botanic Garden
 U.S. National Arboretum

Pennsylvania

Arboretum of the Barnes Foundation
 John Bartram Association
 Bowman's Hill Wildflower Preserve
 Brandywine Conservancy
 Bryn Mawr College
 Cedar Chest College
 Chanticleer
 Crozer Arboretum
 Fronthill Arboretum & Bird Sanctuary
 Friends Hospital
 Harrisburg Area Community College
 Haverford College Arboretum
 Henry Foundation for Botanical
 Research
 Horticulture Society of Western
 Pennsylvania
 Jenkins Arboretum
 Masonic Homes
 Meadows Arboretum
 Morris Arboretum
 Phipps Conservatory
 Pittsburgh Civic Garden Center

Pittsburgh Zoo
 Rodef Shalom Biblical Botanical
 Garden
 Henry Schmieder Arboretum
 Scott Arboretum of Swathmore
 College
 Taylor Arboretum
 Temple University
 Tyler Arboretum
 Villanova University
 Wyck Association
 Zoological Society of Philadelphia

Maryland

Brookside Gardens
 Londontown Public House and
 Gardens
 Salisbury State University
 Surreybrooke
 The Adkins Arboretum
 William Paca Gardens

Virginia

Forest Lawn Cemetery
 Green Spring Gardens Park
 Hampden-Sydney College
 James Madison University Arboretum
 Lewis Ginter Botanical Garden
 Monticello
 Norfolk Botanical Garden
 Orlando E. White Arboretum
 The Winkler Botanical Preserve

West Virginia

NONE

APPENDIX D

Cover Letter

August 10, 1994

Dear Public Horticulture Professional:

What do you think about your job? Are you paid enough? Does your boss do a good job of supervising you? Is the field of public horticulture a satisfying one in which to work?

These questions and others are what we hope are answered as a result of the thesis research currently being conducted. Little is known about public horticulture professionals' attitude toward their job. With your answers to this anonymous survey, you can contribute to a better understanding of the field.

As I said, this entire study is anonymous. The only coding is for determining your organization, and cannot be used to identify YOU. Do not put your name on the answer sheet or on the return envelope enclosed.

Please take a few minutes to complete the enclosed questionnaire. This questionnaire is being sent to a select number of organizations and their employees at public horticulture institutions, so it is important that you make your opinions count.

The information gathered through this research will be used to make recommendations for how the field of public horticulture can better serve all of its employees. This study is looking at all jobs within horticulture: gardeners, secretaries, maintenance, research, and so on. It is therefore extremely important that you fill out the survey no matter what your job is.

Please fill out the survey now, while it is fresh in your mind. You can then place it in the self addressed stamped envelope and mail it at no cost to you.

Please return your responses by August 31, 1994.

If you have any questions or comments, please contact:

Mr. Patrick S. Larkin
Longwood Graduate Program
University of Delaware
153 Townsend Hall
Newark, DE 19717-1303
(302)831-2517
or via e-mail at 65010@bach.udel.edu

Sincerely,

Patrick S. Larkin
Longwood Graduate Fellow

Enclosures: 3

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