

LIBRARY

AN EMPIRICAL INVESTIGATION OF THEORIES RELATED  
TO JOB SATISFACTION AMONG UNSKILLED MANUAL  
LABORERS EMPLOYED IN THE DENTON, TEXAS  
SOLID WASTE DEPARTMENT

808-7350

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A DISSERTATION  
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BY

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## TABLE OF CONTENTS

	Page
ACKNOWLEDGMENTS . . . . .	iii
LIST OF TABLES. . . . .	x
LIST OF FIGURES . . . . .	xiii
 Chapter	
✓ I A SELECTED REVIEW OF THE LITERATURE RELATED TO JOB SATISFACTION. . . . .	1
Introduction . . . . .	1
General Trends in Job Satisfaction Research . . . . .	2
Social Factors Related to Job Satisfaction . . . . .	3
Methods and Procedures . . . . .	3
Herzberg's Theory of Job Satisfaction. . . . .	5
Herzberg's First Major Work. . . . .	5
Herzberg's Major Empirical Study . . . . .	9
Procedures Followed in Herzberg's Empirical Study . . . . .	9
Findings . . . . .	11
Herzberg's Expansion of the Theory . . . . .	13
Studies Related to Herzberg's Theory . . . . .	14
Selected Research Supporting Herzberg's Theory. . . . .	15
Selected Research Not Support- ing Herzberg's Theory. . . . .	17
Major Criticisms of Herzberg's Theory. . . . .	20
Other Theoretical Frameworks Considered. . . . .	22
Reference Group Theory . . . . .	22
The Theory of Distributive Justice . . . . .	24
Protestant Ethic Work Values . . . . .	25
Problems Related to Job Satis- faction Studies. . . . .	26
The Measurement of Job Satisfaction. . . . .	31
Summary. . . . .	34

Chapter		Page
✓ II	STATEMENT OF THE RESEARCH PROBLEM AND THE HYPOTHESES TESTED. . . . .	36
	Introduction . . . . .	36
	Expansion of the Statement of the Problem. . . . .	36
	Hypotheses Tested. . . . .	38
	Formal Statement of Hypotheses . . . . .	39
	Derivations of Hypotheses . . . . .	40
	Hypothesis I . . . . .	40
	Hypothesis II. . . . .	42
	Hypothesis III . . . . .	42
	Hypothesis IV. . . . .	43
	Hypothesis V . . . . .	43
	Hypothesis VI. . . . .	44
	Hypothesis VII . . . . .	44
	Hypothesis VIII. . . . .	45
	Summary. . . . .	46
III	THE ORGANIZATION OF THE SOLID WASTE DEPARTMENT AND A DESCRIPTION OF OPERATIONS . . . . .	47
	Introduction . . . . .	47
	Formal Organization. . . . .	49
	Procedures for Residential Solid Waste Collection Both Before and After April 15, 1973 . . . . .	53
	Procedures Before April 15 . . . . .	53
	Procedures After April 15. . . . .	54
	Other Departmental Procedures. . . . .	55
	Hiring practices. . . . .	55
	Pay and fringe benefits . . . . .	55
	Physical facilities. . . . .	56
	Recent Changes and Proposed Changes. . . . .	57
	Other Observations . . . . .	58
✓ IV	RESEARCH DESIGN AND PROCEDURES . . . . .	60
	Specific Problems Related to Research Among Unskilled Manual Laborers. . . . .	60
	Theoretical Triangulation. . . . .	61
	The Collection of Data . . . . .	62
	Sampling Method. . . . .	62
	Research Design. . . . .	63
	Operational Definitions. . . . .	63
	Job Satisfaction . . . . .	63
	Seniority. . . . .	64

Stability . . . . .	64
Mobility . . . . .	64
Extrinsic factors . . . . .	64
Intrinsic factors . . . . .	64
Working Conditions, Time I . . . . .	64
Working Conditions, Time II . . . . .	65
M-H Theory . . . . .	65
R-I Index . . . . .	65
RGI . . . . .	65
PE Index . . . . .	66
JSI . . . . .	66
SWC . . . . .	66
Identification of Data Collected to Test Hypotheses Related to Each of the Four Theories which Oriented the Investigation . . . . .	67
Herzberg's Theory . . . . .	67
Homans' Theory of Distributive Justice . . . . .	68
Reference Group Theory . . . . .	70
Protestant Ethic Work Values . . . . .	71
Procedures for Testing Hypotheses . . . . .	72
Test of Hypothesis I . . . . .	72
Test of Hypothesis II . . . . .	73
Test of Hypothesis III . . . . .	74
Test of Hypothesis IV . . . . .	75
Test of Hypothesis V . . . . .	75
Test of Hypothesis VI . . . . .	76
Test of Hypothesis VII . . . . .	77
Test of Hypothesis VIII . . . . .	77
The Measurement of the Dependent Variable . . . . .	77
Satisfaction with Work Characteristics . . . . .	79
Category I Questions . . . . .	80
Category II Questions . . . . .	81
Category III Questions . . . . .	81
Category IV Questions . . . . .	81
Scoring Procedures . . . . .	81
Reward-Investment Index (R-I Index) . . . . .	82
Reference Group Index (RGI) . . . . .	84
Job Satisfaction Index (JSI) . . . . .	85
Satisfaction with Work Characteristics . . . . .	86
Protestant Ethic Work Values (PE Index) . . . . .	86
Summary Statement . . . . .	87
V DESCRIPTION OF THE POPULATION . . . . .	90
Demographic Characteristics . . . . .	90
Age Composition . . . . .	90

Chapter	Page
Educational Attainment . . . . .	92
Marital Status and Other Related Family Factors . . . . .	93
Education of Fathers of Respondents. . . . .	93
Intergenerational Occupational Mobility. . . . .	93
Stability in Employment. . . . .	95
Seniority. . . . .	95
Number of Jobs Held. . . . .	98
Satisfaction Expressed Relative to Particular Characteristics of the Job. . . . .	100
Class I, The Actual Process of Doing the Work. . . . .	101
The Questions Classified in Class I. . . . .	101
Explanation of "No Response" . . . . .	102
Levels of Satisfaction . . . . .	102
Class II, Relationships with the Public. . . . .	106
The Questions Classified in Class II . . . . .	106
Explanation of "No Response" . . . . .	107
Levels of Satisfaction . . . . .	108
Class III, Relationships with Superiors. . . . .	110
Class IV, Relationships with Peer Group. . . . .	115
Class V, Results of the Work . . . . .	117
Social-Psychological Factors . . . . .	120
Introduction . . . . .	120
The Protestant Ethic Work Values . . . . .	123
Srole's Anomia Items . . . . .	130
Job Satisfaction . . . . .	135
Summary. . . . .	137
 VI TESTS OF HYPOTHESES RELATED TO JOB SATISFACTION . . . . .	 141
Hypotheses in Response to Herzberg's Theory. . . . .	141
Hypothesis I . . . . .	142
Procedures for Testing the Hypothesis. . . . .	142
Statistical Test . . . . .	143
Results of the Test of Hypothesis I. . . . .	145
Hypothesis II. . . . .	146
Procedures for Testing the Hypothesis. . . . .	146
Statistical Test . . . . .	147
Results of the Test of Hypothesis II . . . . .	148
Hypothesis III . . . . .	148
Procedures for Testing the Hypothesis. . . . .	148
Statistical Test . . . . .	148
Decision about Hypothesis III. . . . .	149

Chapter	Page
Hypothesis IV. . . . .	149
Procedures for Testing the Hypothesis. . . . .	150
Statistical Test . . . . .	150
Results of the Test of Hypothesis IV . . . . .	151
Hypothesis V . . . . .	151
Procedures for Testing the Hypothesis. . . . .	152
Statistical Test . . . . .	152
Results of the Test of Hypothesis V. . . . .	152
Evaluation of Herzberg's Theory in Explaining Job Satisfaction Among Unskilled Manual Laborers. . . . .	154
Hypothesis Based on Homans' Theory of Distributive Justice . . . . .	156
Hypothesis VI. . . . .	159
Procedures for Testing the Hypothesis. . . . .	159
Statistical Test . . . . .	160
Results of the Test of Hypothesis VI . . . . .	161
Hypothesis Based on Merton's Reference Group Theory . . . . .	162
Hypothesis VII . . . . .	162
Procedures for Testing the Hypothesis. . . . .	163
Statistical Test . . . . .	163
Results of the Test of Hypothesis VII. . . . .	163
Hypothesis Related to Acceptance of the Protestant Ethic Work Values . . . . .	164
Hypothesis VIII. . . . .	164
Procedures for Testing the Hypothesis. . . . .	164
Statistical Test . . . . .	165
Results of the Test of Hypothesis VIII . . . . .	165
Summary. . . . .	166
 VII CONCLUSIONS AND IMPLICATIONS FOR FUTURE RESEARCH. . . . .	 170
Introduction . . . . .	170
Data Collection. . . . .	171
Evaluation of Theoretical Frames of Reference . . . . .	174
Herzberg's Theory. . . . .	174
The Theory of Distributive Justice . . . . .	176
Reference Group Index. . . . .	177
Protestant Ethic Work Values . . . . .	178
Conclusions. . . . .	179
Recommendations for Future Research. . . . .	181
 APPENDIX. . . . .	 183
BIBLIOGRAPHY. . . . .	204

## LIST OF TABLES

Table		Page
1	Numerical Values Given to Varying Degrees of Realization of Values in Six Status Factors Which Comprise the Distributive Justice Index. . . . .	83
2	Distribution of Solid Waste Employees By Age . . . . .	91
3	Distribution of Solid Waste Employees By Educational Attainment. . . . .	92
4	Distribution of Occupational Attainment of Fathers of Solid Waste Employees. . . . .	94
5	Distribution of Solid Waste Employees By Seniority . . . . .	96
6	Distribution of Seniority Among Solid Waste Employees by Position. . . . .	97
7	Distribution of Stability in Employment by the Number of Jobs Held During the Past Five Years. . . . .	99
8	Distribution by Level of Satisfaction Expressed in Response to Each of the Questions. . . . .	103
9	Distribution by Level of Satisfaction Expressed in Response to Each of the Questions Related to the Public. . . . .	107
10	Distribution of Responses to Question Eight. . . . .	111
11	Distribution of Responses to Question Eleven. . . . .	113
12	Distribution of Responses to Question Eighteen. . . . .	114

Table		Page
13	Distribution of Responses to Question Two . . . . .	116
14	Distribution of Responses to Question Seventeen . . . . .	118
15	Distribution by Level of Satisfaction Expressed in Response to Each of Questions 14, 15, and 16 . . . . .	119
16	Distribution of Responses by Item in Dimension I (Pro-Protestant Ethic) . . . . .	124
17	Distribution of Agreement and Disagreement on Pro-Protestant Ethic Items by Ethnic Group. . . . .	126
18	Distribution of Scores on Protestant Ethic Work Values. . . . .	128
19	Distribution of Agreement and Disagreement to Non-Protestant Ethic Items by Ethnic Group. . . . .	129
20	Distribution of Responses to Each of Srole's Anomia Items . . . . .	131
21	Distribution of Responses to Anomia Items by Ethnic Group. . . . .	132
22	Distribution of Anomia Scores in Srole's Sample Compared to Scores of Solid Waste Employees. . . . .	133
23	Known Characteristics of Seven Subjects Who Scored From Zero to Two on Srole's Anomia Items . . . . .	134
24	Job Satisfaction of Four Groups of Workers Employed at Different Levels of Occupations . . . . .	137
25	Change in Job Satisfaction for Drivers by Direction of Change . . . . .	143

Table		Page
26	Change in Job Satisfaction for Collectors by Direction of Change . . . . .	144
27	Physical Exertion and Job Satisfaction . . . . .	145
28	Frequencies of Extrinsic Factors Mentioned in Reference to Satisfaction and to Dissatisfaction . . . . .	147
29	Frequencies of Intrinsic Factors Mentioned in the Context of Satisfaction and in the Context of Dissatisfaction with the Present Job . . . . .	149
30	Frequencies of Mentioning Extrinsic Factors Within the Context of the Best Job Ever Held and The Worst Job Ever Held . . . . .	151
31	Frequencies of Mentioning Intrinsic Factors Within the Context of Best Job and Worst Job Ever Held. . . . .	152
32	Median Job Satisfaction Scores for Time I and Time II for Subjects by Presence or Absence of Intrinsic Factors . . . . .	153
33	Association Between Reward-Investment and Job Satisfaction . . . . .	160
34	Satisfaction and R-I Index . . . . .	161
35	Association Between Reference Group Index and Job Satisfaction . . . . .	163
36	Association Between Acceptance of Protestant Ethic Work Values and Job Satisfaction . . . . .	165
37	Association Between Certain Social Indicators and Job Satisfaction. . . . .	181

## LIST OF FIGURES

Figure		Page
1	Organization Chart . . . . .	48
2	Map of Solid Waste Collection. . . . .	50
3	Specific Routes of Solid Waste Collection. . . . .	51

## CHAPTER I

### A SELECTED REVIEW OF THE LITERATURE

#### RELATED TO JOB SATISFACTION

##### Introduction

The central purpose of the present investigation was to explain job satisfaction among unskilled manual laborers. In an attempt to evaluate the major trends in the study of job satisfaction and to determine the status of the research findings in the area, a broad review of the literature was conducted. Job satisfaction has been the subject of investigations by social scientists from several different specific disciplines. Industrial sociologists, industrial psychologists, human relations experts, social psychologists, and personnel psychologists have reported studies related to job satisfaction. The purposes of the various investigators differed; such differences of purpose often determined the designs of the research and the interpretations of their findings. Many of the efforts were directed toward controlling the behavior of the workers in specific situations. The review of job satisfaction research which follows is selective in that it contains that which was judged to be relevant to the study of unskilled manual laborers.

### General Trends in Job Satisfaction Research

Robert Hoppock's study, Job Satisfaction, 1935, was a pioneering effort in the area of job satisfaction study. In his survey of the working population of a community, he used the structured interview, followed by a more intensive investigation of work attitudes of a selected sample. His findings as well as his questions have served as models for research in the area of job satisfaction by social scientists since that time. Earlier studies related to work and attitudes of workers toward their work had dealt with specific situations and were not oriented by a theoretical or conceptual frame of reference. Hoppock's study was intended to provide knowledge about job satisfaction which would be neither time nor situation bound.<sup>1</sup>

During the next two decades studies related to job satisfaction centered about improving productivity of workers through discovering how to raise their levels of satisfaction. Much of the research of this era represents an effort to increase productivity by increasing the worker motivation. Other research was directed at problem solving in particular situations.

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<sup>1</sup>Robert Hoppock, Job Satisfaction (New York: Harper and Bros., 1935).

### Social Factors Related to Job Satisfaction

The number and types of social factors which have been found to be related to job satisfaction are almost unlimited but there are some factors which have been found to be associated with job satisfaction repeatedly by different researchers investigating very different populations. In general, levels of job satisfaction appear to increase with occupational level, yet within each level there appear to be differences. Data-oriented occupations have workers who are relatively dissatisfied more often than do people-oriented occupations. Those workers who have much difficulty in deciding upon their occupations are not so satisfied as those who have less difficulty in deciding what type of work they prefer. Workers who have less direct supervision indicate higher job satisfaction than those who are closely supervised. These are some of the findings of job satisfaction studies which appear to be accepted as facts by social scientists.

### Methods and Procedures

Studies which acquire data by the survey method have been criticized for making the necessary assumption that questions which are stated in a set pattern to all respondents have the same meaning to respondents who have very different

educational backgrounds.<sup>1</sup> The survey method permits larger samples but may be limited in the quality of information obtained.

Small samples can produce more information and may produce information of higher validity than large samples but often such studies lack representativeness or generalizability.

Questions which have been used to measure job satisfaction range from simple direct questions such as, "How well satisfied are you with your job?" to multiple questions which are direct or indirect and form an index of job satisfaction.

The general impression appears to be that there is a wealth of job satisfaction studies but progress in the area has been limited by the lack of theory to guide the building of a body of knowledge. Frederick Herzberg has reviewed the existing literature and attempted to build a theory of job satisfaction and to test it. The remainder of the review of the literature concentrates on Herzberg's publications and three other theoretical frames of reference which have oriented research in the area of job satisfaction.

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<sup>1</sup>John P. Robinson, "Occupational Norms and Differences in Job Satisfaction: A Summary of Survey Research Evidence," published in John P. Robinson, et al., Measures of Occupational Attitudes and Occupational Characteristics (Institute for Social Research, The University of Michigan, Ann Arbor, Michigan, 1969), 69.

### Herzberg's Theory of Job Satisfaction

The development of Herzberg's theory evolves through three of his major publications. Each of the works is reviewed as it appears that misinterpretations of his theory stem from the neglect of both his followers and critics to consider carefully the sources and procedures he followed in that development from one stage to another. The first major work consists of a most comprehensive review of the literature about job satisfaction. His appraisal of previous findings led him to form a tentative theory of job satisfaction which he tested and published the results in his second major work. The third book is one in which he attempts to extend his theory to the field of mental health.

#### Herzberg's First Major Work

In Job Attitudes: Review of Research and Opinion (1957), Herzberg reviewed 1,578 books and articles related to the subject of job satisfaction.<sup>1</sup> That publication represents his first attempt to construct a new theory to explain job satisfaction. One notices indications of the beginning of a classification of extrinsic and intrinsic factors but there was no particular attention given to the building of the theory. Extrinsic factors were defined as job context

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<sup>1</sup>Frederick Herzberg, Bernard Mauser, Richard O. Peterson and Dora F. Capwell, Job Attitudes: Review of Research and Opinion (Pittsburgh: Psychological Services, 1957).

factors and intrinsic factors were defined as job content factors. Satisfactory criteria for clearly distinguishing the two were not identified. The chief contribution of that work lies in the area of the review and evaluation of research procedures and findings related to job satisfaction.

Herzberg noticed that if one considered the average percentage of dissatisfied workers which had been reported across available research, one would conclude that only about 13 percent of the working population is dissatisfied.

Reasoning that job dissatisfaction is more prevalent among workers employed at lower level jobs and that it is at these lower levels that most jobs are found, Herzberg concluded that the proportion of the working population which is dissatisfied with their jobs must be greater than the low proportions reported. It follows that lower level workers have been under-represented in studies of job satisfaction.

In his extensive review of the literature Herzberg evaluated the findings related to specific social factors of which the following were included:

1. Age - Job satisfaction has been found to vary by age of the workers. During their early twenties, workers are found to express relatively high job satisfaction but when they reach their late twenties job satisfaction drops to its lowest level. From that lowest point during the late

twenties, job satisfaction steadily rises, reaching the highest point during the mid-fifties.

2. Length of Service - A positive association is found between length of service and job satisfaction, but Herzberg observed that it may be a function of age rather than length of service. Both length of service and age occur together.

3. Sex - There is a greater variation in job satisfaction among women than there is among men. Herzberg hypothesized that those women who resemble men in their job satisfaction rates may regard the role of work in their lives in the same manner as do men.

4. Education - Conflicting findings are reported when the relationship between education and job satisfaction is considered. Herzberg suggested that more evidence is needed before conclusions can be drawn but it could be that age is the factor to be considered rather than education. Older workers have lower median educational levels than do younger workers. He suggested that future research should control for occupation and look at variations of job satisfaction within the occupation by educational level.

5. Social Class - It is recognized that there is evidence that attitudes toward work exhibited by the worker can be attributed to be part of the commonly held

value-system of the social class rather than being entirely an individual matter.<sup>1</sup>

As indicated earlier, Herzberg began to employ the classification of extrinsic and intrinsic factors in his first major work, but the definitions offered are not consistent with his later statements. He also considered observations which closely resemble Maslow's "need hierarchy."<sup>2</sup>

Job factors are bound to change in importance as the worker's job situation and "needs" change. When the worker is not pushed for such basic things as food, clothing, shelter, he begins to give more attention to factors that will maintain this condition--a fair company and a steady job. He also thinks about some of the pleasurable and personally rewarding aspects of this job--interesting work and so on. If he finds the desired rewards in these areas, he may begin to feel that the challenge of advancement is now his most important goal, and with advancement he may again become very much concerned about money.<sup>3</sup>

One major conclusion at which Herzberg arrived is that the relative factor importance depends very much on the type of approach the researcher uses. If a given set of factors is presented to the employees, the resulting set of values is very different from those produced when the employees are asked to furnish the factors which are related to their job satisfaction.

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<sup>1</sup>Ibid., 5-16.

<sup>2</sup>Newitt Sanford, Issues in Personality Theory (San Francisco: Jossey Bass, Inc., 1970), 52.

<sup>3</sup>Herzberg, et al., Job Attitudes, 50.

### Herzberg's Major Empirical Study

Two years later, in 1959, Herzberg published in detail a major empirical study in which his two-factor theory emerges. It appears appropriate to follow the development of the theory as presented by the author in order to understand the theory fully. A second reason for the detailed account is that there is a major difference of opinion concerning the proper interpretation of the theory among prominent people who have attempted to explain the theory.

One major finding which emerged from Herzberg's lengthy review of the literature on job satisfaction was that there is a difference in the primacy of factors, depending on whether or not the investigator asked what the worker liked about his job or what he disliked about his job. To Herzberg that observation suggested that some factors serve as "satisfiers" and others serve as "dissatisfiers." From that conclusion he derived one of the major hypotheses for his study reported in Motivation to Work, 1959.

#### Procedures Followed in Herzberg's Empirical

Study.--Pilot projects were conducted to determine the feasibility of the "critical incident" approach. Interviews were conducted to judge if the respondents would be able to recall and to relate incidents in their work when they had felt especially good or especially bad about their jobs.

. . .it was notable that such factors as the intrinsic nature of the job, the characteristics

of supervision, the relationships of the respondent to the social group in which he worked, the opportunity for advancement, and the characteristics of the company and management situation all played a role in determining the respondent's feelings about his job.<sup>1</sup>

During the interviewing for the first pilot study it was noticed that there appeared to be two different types of incidents reported; one type was short-term in that the time involved from the onset of change of feelings until feelings returned to normal involved a short period of time. The time factor provided the criterion for classification but it was noticed that different types of information also distinguished the two types of incidents from each other.

A second pilot study was conducted for the purpose of refining the method of gathering information. The sample selected was larger than in the first pilot study and came from middle-management personnel. The following general hypotheses were tested during that phase of the study.

1. Different kinds of factors will be found to lead to short-range and long-range sequences.
2. Different kinds of effects will result from job attitudes shown during short-range and long-range sequences.
3. High sequences, that is, those revolving around good feelings, will stem from different factors and will contain different effects than "low" sequences, those revolving around bad feelings.<sup>2</sup>

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<sup>1</sup>Frederick Herzberg, Bernard Mausner, Barbara Bloch Snyderman, The Motivation to Work (New York: John Wiley and Sons, Inc., 1959), 21.

<sup>2</sup>Ibid. 24-25.

Following the second pilot study, revisions of the interview technique were made in order to identify the factors, the attitudes, and the effects which were seen to be the three major aspects of the sequences. Hypotheses which were formulated and tested on a sample of 200 engineers and accountants appear to be the same as those stated above; however, Herzberg does not clarify what his final hypotheses were. He does state that the major question to be answered in the research was, "What do people want from their jobs?"<sup>1</sup>

Rather than using the a priori approach in content analysis of the sequences, Herzberg chose the a posteriori approach in that the categories of analysis were extracted from the material itself. It is from the results of the content analysis' distribution of frequencies of responses of good feelings (satisfaction) associated with intrinsic factors and bad feelings (dissatisfaction) that Herzberg was led to conclude that satisfiers are related to the actual job and dissatisfiers are related to the job situation.

Findings.--The following quotation appears to describe very specifically the findings of Herzberg's research.

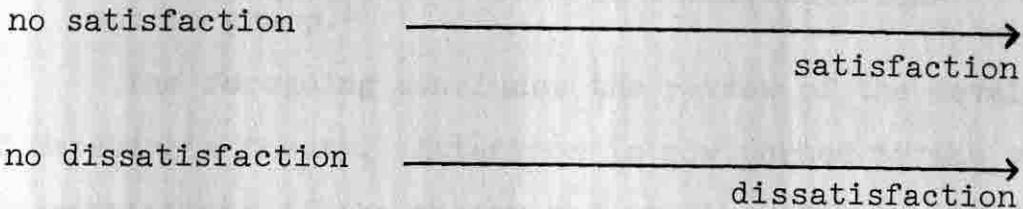
We have previously said that all the motivating factors focused on the job and that the factors that appeared infrequently in the high job-attitude stories could be characterized as describing the job context. It is just these

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<sup>1</sup>Ibid., 113.



## Herzberg's Approach



Herzberg's basis for considering the two-dimensional explanation rests upon the psychological theory of the two basic needs of man--the avoidance of pain, represented by the extrinsic or hygiene factors and the seeking of pleasurable feelings, represented by the intrinsic or motivator factors.

### Herzberg's Expansion of the Theory

Seven years later Herzberg published Work and the Nature of Man, 1966, in which he expanded the hypothesis tested in the research reported in Motivation to Work. The expansion leads to a general theory about work and the nature of man. In reviewing the two-factor theory of job satisfaction Herzberg stated that those factors involved in producing job satisfaction were "separate and distinct" from those which led to job dissatisfaction.

Since separate factors needed to be considered, depending on whether job satisfaction or job dissatisfaction was involved, it followed that these two feelings were not the obverse of each other. Thus, the opposite of job satisfaction would not be job dissatisfaction, but rather no job satisfaction; similarly, the opposite of job dissatisfaction is no job dissatisfaction, not

satisfaction with one's job. The fact that job satisfaction is made up of two unipolar traits is not unique, but it remains a difficult concept to grasp.<sup>1</sup>

The foregoing concludes the review of the development of Herzberg's theory. Attention is now turned to the various interpretations of the theory and studies of job satisfaction in which Herzberg's theory is also referred to as "the M-H Theory," an abbreviated form which indicates the two factors involved--the motivators (M) and the hygienes (H). Intrinsic factors are the motivators and extrinsic factors are the hygienes, or motivators are the satisfiers and hygienes are the dissatisfiers.

#### Studies Related to Herzberg's Theory

As previously stated, there appears to be no theory of job satisfaction which has received so much attention or has had the misfortune to be interpreted as having so many different meanings as that of Herzberg's two-factor theory of job satisfaction. King, 1970, identified five different versions of Herzberg's theory<sup>2</sup> which have been restated by Waters and Roach as follows.<sup>3</sup>

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<sup>1</sup>Ibid., 75-76.

<sup>2</sup>Nathan King, "Clarification and Evaluation of the Two-Factor Theory of Job Satisfaction," Psychological Bulletin, 74 (February, 1970), 19.

<sup>3</sup>L. K. Waters and Darrell Roach, "The Two-Factor Theories of Job Satisfaction: Empirical Tests for Four Samples of Insurance Company Employees," Personnel Psychology, 24 (Winter, 1971), 698.

Theory I: This version states that all intrinsic variables (motivators) combined contribute more to job satisfaction than to job dissatisfaction, and all extrinsic variables (hygienes) combined contribute more to job dissatisfaction than to job satisfaction.

Theory II: Theory II states that all intrinsic variables combined contribute more to job satisfaction than do all extrinsic variables combined, and all extrinsic variables combined contribute more to job dissatisfaction than do all intrinsic variables combined.

Theory III: This version of the two-factor theory states that each intrinsic variable contributes more to job satisfaction than to job dissatisfaction, and opposite for each extrinsic variable. Theory III is a strong version of Theory I.

Theory IV: According to Theory IV, the conditions of Theory III hold plus each principal intrinsic variable contributes more to job satisfaction than does any extrinsic variable, and the converse for contribution to job dissatisfaction.

Theory V: Theory V states that only intrinsic variables contribute to job satisfaction and only extrinsic variables contribute to job dissatisfaction.

There appears to be justification for the various versions of Herzberg's theory in that he is not consistent in the claims that he sets forth at different times in his published works. His findings do not justify version five but the implications are there in his interpretations of the research.

#### Selected Research Supporting Herzberg's Theory

Malinovsky and Barry, 1965, found that responses of 117 blue-collar workers could be categorized into two

independent response categories, similar to Herzberg's two-factor classifications. The authors, however, do not feel that the results of their factor analysis support Herzberg's theory because both motivator and hygiene factors contributed to overall job satisfaction.<sup>1</sup> Whitsett and Winslow, in reviewing the study of Malinovsky and Barry, conclude that the study does support Herzberg's theory.<sup>2</sup>

Frank Friedlander and E. Walton, 1961, used the semi-structured interview to determine what factors the scientists and engineers in their sample considered to be those that would keep them on the job or cause them to leave the job. They found the reasons for staying on the job and the reasons for leaving the job to be different in that those which would cause them to stay could be classified as Herzberg's motivators and those that could cause them to leave could be classified as hygienes. Friedlander and Walton concluded that Herzberg's theory had been supported.<sup>3</sup> Friedlander published four other studies which have been cited by some

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<sup>1</sup>Michael R. Malinowsky and John R. Barry, "Determinants of Work Attitudes," Journal of Applied Psychology, 49 (December, 1965), 446-451.

<sup>2</sup>D. A. Whitsett and E. K. Winslow, "An Analysis of Studies Critical of the Motivator-Hygiene Theory," Personnel Psychology, 20 (Winter, 1967), 391-415.

<sup>3</sup>Frank Friedlander and E. Walton, "Positive and Negative Motivation Toward Work," Administration Science Quarterly, 9 (September, 1964), 194-207.

reviewers as nonsupportive of the M-H theory but Whitsett and Winslow interpret the findings as supportive of the M-H theory.<sup>1</sup>

In Friedlander's 1966 study 9,000 questionnaires were given to employees of a manufacturing company; the responses gathered were submitted to factor analysis. Responses were categorized, two of which represented the motivator and the hygiene factors, but to which Friedlander referred by other labels; the third set of items was three motivator classifications plus one which was considered to be a hygiene item. The results are considered to be supportive of the M-H theory.<sup>2</sup>

One other Friedlander study, consisting of 1,935 workers, contributed to validation of the M-H theory in that he found the factors contributing mainly to satisfaction fit Herzberg's motivator classification and those contributing to dissatisfaction fit the hygiene classifications.<sup>3</sup>

#### Selected Research Not Supporting Herzberg's Theory

Ewen, Smith, Hulin, and Locke, 1966, analyzed a sample of responses from 793 males who varied in age, job

<sup>1</sup>Whitsett and Winslow, "An Analysis of Studies," 404-05.

<sup>2</sup>Frank Friedlander, "Underlying Sources of Job Satisfaction," Journal of Applied Psychology, 47 (August, 1963), 246-250.

<sup>3</sup>Frank Friedlander, "Job Characteristics as Satisfiers and Dissatisfiers," Journal of Applied Psychology, 48 (December, 1964), 388-392.

level, education, work experience, and place of employment. Believing that Herzberg's free-choice recall method involved bias, the authors chose to use the forced-choice method of gathering data on job satisfaction and dissatisfaction. It was found that intrinsic factors are more closely related to both overall satisfaction and dissatisfaction, suggesting that the functioning of extrinsic variables may depend on the level of satisfaction with intrinsic variables.<sup>1</sup>

George B. Graen, 1966, conducted a secondary analysis of the data of the Ewen, et al., investigation. In his two-way analysis of variance Graen found that satisfiers were much more influential in both job satisfaction and job dissatisfaction. The distinction between satisfiers and dissatisfiers was found to be unjustified.<sup>2</sup>

Paul F. Wernimont, 1966, combined the data gathering methods of Ewen, et al., and Herzberg; i.e., he used both the free choice method and the forced-choice method. Wernimont concluded that intrinsic were the factors which served to explain both dissatisfaction and satisfaction, even though

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<sup>1</sup>Robert B. Ewen, Patricia C. Smith, Charles L. Hulin, and E. A. Locke, "An Empirical Test of the Herzberg Two-Factor Theory," Journal of Applied Psychology, 50 (December, 1966), 544-550.

<sup>2</sup>George B. Graen, "Addendum to an Empirical Test of the Herzberg Two-Factor Theory," Journal of Applied Psychology, 50 (December, 1966), 551-555.

both intrinsic and extrinsic factors were found to be operating as sources of both satisfaction and dissatisfaction.<sup>1</sup>

John R. Hinrichs and Louis A. Mischkind, 1967, used content analysis on open-ended responses of 613 engineering technicians and concluded that

the proportion of intrinsic factors contributing to negative job feelings become larger and larger with decreasing level of respondents' overall level of satisfaction.<sup>2</sup>

House and Wigdor, 1967, performed a secondary analysis of Herzberg's own data and concluded that the data did not support the M-H dichotomy. The separation of the two categories requires arbitrary decisions.<sup>3</sup>

Lindsay, Marks, and Gorlow, 1967, studied 270 professional and nonprofessional personnel selected from the roster of a small aerospace research and development company. An analysis of variance indicated that 75 percent of the variance in satisfaction scores was accounted for by both Herzberg's satisfiers and dissatisfiers. Although they found

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<sup>1</sup>Paul F. Wernimont, "Intrinsic and Extrinsic Factors in Job Satisfaction," Journal of Applied Psychology, 50 (February, 1966), 41-50.

<sup>2</sup>John R. Hinrichs and Louis A. Mischkind, "Empirical and Theoretical Limitations of the Two-Factor Hypothesis of Job Satisfaction," Journal of Applied Psychology, 51 (August, 1967), 191-200.

<sup>3</sup>Robert J. House and Lawrence A. Wigdor, "Herzberg's Dual-Factor Theory of Job Satisfaction and Motivation: A Review of the Evidence and A Criticism," Personnel Psychology, 20 (Winter, 1967), 367-387.

that motivators (satisfiers) contribute more to job satisfaction than do the hygienes, they are not independent of one another.<sup>1</sup>

B. L. Hinton, 1968, collected three sets of data at six-week intervals from undergraduate students. Analysis of the data led him to reject Herzberg's methodology and the validity of the theory as findings across repeated measures were inconsistent.<sup>2</sup>

#### Major Criticisms of Herzberg's Theory

The most frequent criticisms of Herzberg's two-factor theory are:

1. His theory is methodologically bound. It is only through the use of the "critical incident" approach that one finds the same results as did Herzberg.
2. His concepts of extrinsic and intrinsic factors are not clearly defined. The classifications seem to require arbitrary judgement.
3. He used no overall job satisfaction scale in order to establish levels of job satisfaction.

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<sup>1</sup>C. A. Lindsay, E. Marks, and L. Gorlow, "The Herzberg Theory: A Critique and Reformulation," Journal of Applied Psychology, 51 (August, 1967), 330-339.

<sup>2</sup>B. L. Hinton, "An Empirical Investigation of the Herzberg Methodology and Two-Factor Theory," Organizational Behavior and Human Performance, 3 (August, 1968), 286-309.

Whitsett and Winslow, 1967, have responded to the criticism about the lack of an overall job satisfaction scale.

One of the most common and persistent misinterpretations of the Motivator-Hygiene (M-H) theory is the attempt to use measures of overall job satisfaction to make statements purporting to be derived from the theory. The theory does not, and purposely does not, make statements about overall job satisfaction. The separateness of the sets of factors makes it apparent that job attitudes must be looked at twice--once to see if the needs fulfilled by the hygiene factors are indeed fulfilled, and again to see if the needs fulfilled by the motivator items are met.<sup>1</sup>

Whitsett and Winslow criticize Ewen, Hulin, and Locke for using the term "neutral," saying,

Within the structure of the M-H theory there is no neutral point on the motivator continuum because the motivators contribute only to satisfaction; thus a person is, with respect to the motivators, either more or less satisfied, but never neutral. The same is true of hygiene--a person is either more or less dissatisfied, never neutral.<sup>2</sup>

Some investigators have noticed that Herzberg's two-factor theory does not seem to apply to their samples and question the claim that it holds for all levels of occupations. At one point Herzberg recognized that possibility and suggested that further research among workers employed below the level of the middle-class occupations, which he considered, would help to determine if there are jobs which cannot

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<sup>1</sup>Whitsett and Winslow, "An Analysis of Studies," 395.

<sup>2</sup>Ibid., 396.

furnish satisfaction to employees. Herzberg was not indicating that his theory might not apply; rather, he was recognizing the lack of intrinsic factors in some jobs or the possibility that too few exist to promote satisfaction. He recognized the possibility that in such jobs extrinsic factors may serve as satisfiers for very short periods of time.<sup>1</sup>

### Other Theoretical Frameworks Considered

The remaining theoretical orientations from which hypotheses were derived are based upon Merton's reference group theory, Homans' exchange theory, and Weber's The Protestant Ethic and the Spirit of Capitalism. None of the three authors was specifically concerned with job satisfaction but others have found certain aspects of those theoretical works to contribute to the understanding of findings related to job satisfaction. In the following section each of the three theoretical frameworks is discussed with specific reference to its relevance to explaining job satisfaction.

### Reference Group Theory

Merton's reference group theory covers a broad perspective, involving different levels of relationships,

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<sup>1</sup>Herzberg, et al., The Motivation to Work, 102-103; 115-116.

but for the present problem only a small part of the theory is considered.

In general, then, reference group theory aims to systematize the determinants and consequences of those processes of evaluation and self-appraisal in which the individual takes the values or standards of other individuals and groups as a comparative frame of reference.<sup>1</sup>

Merton considers both membership groups and non-membership groups in the development of reference group theory. Any group to which the individual belongs or aspires to belong or to which he consciously wishes not to belong may serve as a reference group for him. The reference group may be near or distant to the person or group which it serves and the orientation to the reference group may be either positive or negative.

Reference group theory indicates that those workers whose friends and families are in similar jobs, that is, unskilled manual labor, should express greater job satisfaction than those workers who are downwardly mobile or who indicate that their friends have higher level jobs. Form and Geschwender found that those manual workers whose jobs are lower than their fathers' or brothers' were more dissatisfied than those who came from families of manual workers.<sup>2</sup>

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<sup>1</sup>Robert Merton, Social Theory and Social Structure (Glencoe: The Free Press, 1964), 234.

<sup>2</sup>Form and Geschwender, "Social Reference Basis of Job Satisfaction: the case of Manual Workers." American Sociological Review, 29 (April, 1962), 228-237.

## The Theory of Distributive Justice

The theory of distributive justice is based on Homans' exchange theory; essentially the theory states that the worker's job satisfaction is based on his evaluation of the balance between his investments in his job and the rewards which he receives from the job. The publication from which the theory is drawn, The Motivation, Productivity, and Satisfaction of Workers: A Prediction Study, does not list Homans as one of the authors but recognizes that the research was carried out "with the assistance and collaboration of George C. Homans."<sup>1</sup>

It was noticed that many investigators have assumed that status incongruence equals a condition of trouble but they have not indicated the type of trouble one should expect. In approaching the problem of building a better theory to explain the results of status incongruence in the work situation, Homans asked, "Why is it that complaints do not arise when status congruence exists?"<sup>2</sup> In the attempt to answer his own question, Homans noticed that there are two different

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<sup>1</sup>A. Zalesnik, C. R. Christensen, and F. J. Roethlisberger, The Motivation, Productivity, and Satisfaction of Workers: A Prediction Study (Norwood, Mass.: The Plimpton Press, 1958), 53-54.

<sup>2</sup>Ibid., 53. Homans is given credit for the theory of distributive justice. Further reference to that research recognizes Homans as the author of the theory.

kinds of status factors involved. The first kind is composed of the investments a worker brings to the job situation such as his education, age, ethnicity, etc. The second set of status factors is composed of what he expects to get out of his job such as pay, interest in the job, and the prestige credited to him by his fellow workers. The second set of status factors is called rewards and the first set is investments.

Homans reasoned that when the investments of a member of a subgroup are higher than those of another member, distributive justice requires that the first receive higher rewards than the other member who has lower investments. Status congruence, then, is a condition of equilibrium because it is "felt justice." Complaints do not arise when the condition of equilibrium exists because the justice of the situation is recognized. Returns are proportional to investments and a condition of justice is felt.<sup>1</sup>

### Protestant Ethic Work Values

When Max Weber discussed the Protestant Ethic, he was intending to explain the rise of the Western type of capitalism in certain countries and why it had not developed in other countries. Weber was only concerned with the development and not the continuation or survival of a particular

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<sup>1</sup>Ibid., 53.

type of capitalism, nor with the numerous associations which later social scientists have come to investigate.<sup>1</sup> Within the present investigation work values which have come to be associated with what is referred to as the Protestant Ethic were considered. Milton Blood constructed a scale of work values and related the acceptance of the Protestant Ethic with job satisfaction. He predicted that persons "who ascribe to Protestant Ethic ideals would be more satisfied with their job."<sup>2</sup> Blood found that agreement with the Protestant Ethic items was directly related to satisfaction both in work and to life in general.

#### Problems Related to Job Satisfaction Studies

The major problems related to studies of job satisfaction may be categorized as theoretical problems and methodological problems. The lack of theory in the area of job satisfaction during the 1930's and the 1940's impeded the advance of knowledge. Hoppock's study served to gather information about social factors related to job satisfaction but there was an absence of theory to provide a satisfactory framework in which the results could be interpreted.

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<sup>1</sup>Max Weber, The Protestant Ethic and the Spirit of Capitalism, Translated by Talcott Parsons (New York: Charles Scribners and Sons, 1958).

<sup>2</sup>Milton R. Blood, "Work Values and Job Satisfaction," Journal of Applied Psychology, 53 (December, 1969), 456-459.

Herzberg and his associates have made the most thorough attempt to develop a theory of job satisfaction. Herzberg's publications have stimulated a rash of research related to the problem but his lack of clarity in stating his two-factor theory has resulted in a number of different interpretations which, as has been illustrated earlier, resulted in confusion. Such confusion is evident in the analysis of studies oriented by Herzberg's theory. Whitsett and Winslow analyzed studies which are critical of Herzberg's theory, examining the problems which have been investigated and the methodologies used. They note that Ewen, 1964, considered his study to be inadequate in drawing any conclusions about Herzberg's theory but they (Whitsett and Winslow) indicate that Burk, Malinovsky and Barry, and Wernimont have considered the Ewen study a clear refutation of Herzberg's theory. Whitsett and Winslow disagree with Ewen's evaluation. Malinowsky and Barry conducted a study which they considered to refute Herzberg's theory but again, Whitsett and Winslow attribute the erroneous conclusion to be the result of "equating satisfaction in the 'overall' sense with satisfaction as used in the M-H theory."<sup>1</sup> Whitsett and Winslow not only challenge the conclusions reached by investigators Malinowsky and Barry but they also

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<sup>1</sup>Whitsett and Winslow, "An Analysis of Studies," 401.

draw their own conclusions that "the net effect of this study is clearly supportive of the M-H theory."<sup>1</sup>

The foregoing example illustrates the point that there is more than slight disagreement among investigators who have attempted to interpret results within the theoretical framework of Herzberg's M-H theory. If Herzberg's theory is the leading theory in the area of job satisfaction, and if it provides orientation for the majority of such research, it follows that the conflicting results which have been reported result from the various interpretations of the theory. Moreover, it may be concluded that knowledge about job satisfaction lies in a state of confusion.

The concept of job satisfaction has not been clearly defined. It is an attitude which workers hold about their jobs; job satisfaction would appear to indicate that the worker expresses positive feelings about his work, whereas, dissatisfaction indicates negative feelings about his work. Questions which are asked in order to establish a level of job satisfaction range from questions which investigate concrete situations to those which seek to explore latent attitudes which are believed to reflect job satisfaction. If different investigators are not measuring the same attitude, then the results cannot be compared with accuracy. There have

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<sup>1</sup>Ibid., 401.

been studies which measured job satisfaction by one question which is direct and to the point, "How well satisfied are you with your job?" The results acquired by the use of such method have been questioned. Neither does a long series of questions insure a better measure nor is a very long series necessary in most instances. Stouffer discusses the problems involved in constructing scales and indices which measure attitudes; he indicates that well chosen items may be few in number.

In fact, one of the important consequences of finding an attitude to be scalable is that one is then justified in selecting three or four items which can be used to order respondents in a limited number of ranks. It may be possible eventually to use a pretest for selecting a single item for practical use...but now the item is selected with full knowledge as to its place in the attitude structure.<sup>1</sup>

It is doubtful that "How well satisfied are you with your job?" has been arrived at through rigorous procedure such as that described by Stouffer.

Robert Blauner has said that the work life is so much a part of a person, it is naive to expect a man to demean his job by indicating too much criticism or dissatisfaction. If he does so, he may consider it a reflection upon his

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<sup>1</sup>Samuel A. Stouffer, "Comparison of Guttman and Latent Structure Scales," in Lazarsfeld, et al., Continuities in the Language of Social Research (New York: The Free Press, 1972), 50.

competence as a person.<sup>1</sup> If Blauner is correct, then his statement provides additional evidence that direct questions about job satisfaction may not render dependable results.

The problem of validity arises in reference to the assumption that questions stated in a set pattern carry the same meaning to all respondents. When one administers the same set of questions to managers and to unskilled laborers, the understanding of what the question is asking may be entirely different to the respondents at each of the two levels. Obviously this is a problem which is not peculiar to job satisfaction studies. Any study of attitudes may encounter similar difficulties.

Herzberg, Wilensky, and Blauner have indicated that they doubt that the reported percentages of satisfied workers are accurate. Across research findings it may be estimated that more than 80 percent of the working population are said to be satisfied with their jobs. Wilensky attributes the usual findings of high percentages of satisfied workers to the cultural bias toward expressing contentment.<sup>2</sup>

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<sup>1</sup>Robert Blauner, "Work Satisfaction and Industrial Trends in Modern Society," in Class, Status and Power: Social Stratification in Comparative Perspective, ed. by Reinhard Bendix and Seymour Martin Lipset (2nd ed.; New York: The Free Press, 1966), 487.

<sup>2</sup>H. Wilensky, "Varieties of Work Experience," in Borow (ed.), Man in a World at Work (Boston: Houghton Mifflin, 1964), 135.

### The Measurement of Job Satisfaction

Explicit attention was given to the various measures of job satisfaction which have been used in publications related to job satisfaction. In very large surveys it appears that only one or two items are relied upon to reflect job satisfaction but when the research effort is directed toward understanding the underlying feelings which influence job satisfaction, lengthy instruments are developed. There is an abundance of indices which have been considered to measure job satisfaction but some are applicable only to highly specialized occupational areas. The major question which arose in association with the measurement of job satisfaction was: Are the various investigators measuring the same attitude or, are they measuring different aspects of one attitude, or, are they measuring different attitudes and labeling them 'job satisfaction'? This question appears to be a serious consideration in coming to a decision about comparing findings of one study to those findings of another study, or in the attempt to bring together a body of knowledge about job satisfaction.

Of the measures of job satisfaction which were reviewed the Brayfield and Rothe Job Satisfaction Index was judged to be of use at almost any level of occupation or education. An

added advantage to that index is that it has been validated and its reliability has been established.<sup>1</sup>

Brayfield and Rothe designated requirements which they considered desirable in an attitude scale constructed to measure job satisfaction. Those requirements are as follows.

1. It should give an index to 'over-all' job satisfaction rather than to specific aspects of the job situation.
2. It should be applicable to a wide variety of jobs.
3. It should be sensitive to variations in attitude.
4. The items should be of such a nature (interesting, realistic, and varied) that the scale would evoke cooperation from both management and employees.
5. It should yield a reliable index.
6. It should yield a valid index.
7. It should be brief and easily scored.<sup>2</sup>

The development of the index was the special project of a Personnel Psychology class. The Thurstone method of scaling technique was used; it appears that the use of the Thurstone method negates the necessity of having employed persons as the subjects for the item analysis which is required by the Likert technique in this situation.

The members of the class were given instructions for the construction of items to be considered in the Job Satisfaction Index; about 1,075 items were considered and

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<sup>1</sup>Arthur H. Brayfield and Harold F. Rothe, "An Index of Job Satisfaction," Journal of Applied Psychology, 35 (October, 1951), 307-311.

<sup>2</sup>Ibid., 307.

246 items were taken from the original number. The items were given to the judges (members of the psychology class) along with instructions for the Thurstone approach for sorting. Q values were obtained for the items and the best items were considered for the final eighteen used. A pretest of the items brought about results which caused the authors to shift to the Likert method of scoring and a second experimental scale was developed.

The second scale was pretested and a rank order correlation indicated that further pretesting should be arranged. A larger sample was used (231 subjects) and the "odd-even product moment reliability coefficient computed for this sample was .77 which was corrected by the Spearman-Brown formula to .87."<sup>1</sup> Thus the reliability for the Job Satisfaction Index was established. The authors felt that the method of scale construction provided evidence for the validity of the scale but an additional attempt to gain an outside criterion was the administration of the scale to two samples who were assumed to be differentially satisfied in their jobs. A difference between the mean scores of the two samples was found to be significant at the one per cent level and the authors conclude:

If the original assumption as to the differential significance of membership in one or the

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<sup>1</sup>Ibid., 311.

other of the two groups is accepted, these data furnish evidence for the validity of the job satisfaction blank.<sup>1</sup>

The foregoing description of the construction, reliability and validity tests of the Job Satisfaction Index lends support to the conclusion that the instrument was appropriate for the measurement of job satisfaction in the present research. The statements appeared to be the best available for use with unskilled manual laborers. The brevity of the items was an attractive property in that it was necessary to read the items to the subjects because of the high rate of functional illiteracy within the population chosen. The vocabulary was as simple or simpler than any other index covered in the review of the literature.

#### Summary

As observed previously job satisfaction studies have been abundant since about 1940. There was a notable absence of a body of theory explaining job satisfaction and much of the research effort was directed at solving problems or was situation bound research. Hoppock's study was different in that there was a conceptual frame of reference and was designed to be neither time nor situation bound. Following Hoppock's study there was a surge of interest in job satisfaction but again, much of the research was directed at

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<sup>1</sup>Ibid., 311.

problem solving, particularly in the area of increasing production. It was thought that increasing worker satisfaction would increase production, but it has been fairly well established that there is not strong association between worker satisfaction and production. Herzberg has made a more thorough study of job satisfaction and stimulated more research in the area than any other one person within the past twenty years. He tested his theory in only two occupational groups and recognized that there was a need to test it among other occupational groups, especially the unskilled labor level.<sup>1</sup> Homans' theory of distributive justice has not received so much attention as has Herzberg's two-factor theory of job satisfaction. Reference group theory has been given more attention than Homans' theory but not nearly so much as Herzberg's theory.

The review of the literature included more than has been mentioned herein, but that which has been considered relevant to the proposed problem and considered to offer potential for explaining job satisfaction among unskilled workers was included in the foregoing presentation.

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<sup>1</sup>Herzberg, et al., Job Attitudes, 73.

## CHAPTER II

### STATEMENT OF THE RESEARCH PROBLEM AND THE HYPOTHESES TESTED

#### Introduction

The majority of studies related to job satisfaction concentrate on samples of workers who are engaged in skilled occupations or professions. Job satisfaction of unskilled manual laborers remains relatively unexplored. The central problem of the present investigation was to attempt to evaluate the explanatory power of the four different theories selected when they are applied to the findings related to job satisfaction among unskilled manual laborers employed in one solid waste department.

Eight hypotheses were tested; in the pages which follow each of the eight hypotheses is stated and is followed by an explanation of the derivation of the hypothesis.

#### Expansion of the Statement of the Problem

The research was oriented by four principal theories, each of which implies very different origins of satisfaction in work. Herzberg's theory is based upon two basic human needs, one of which may serve to promote job

satisfaction.<sup>1</sup> Homans' theory is based upon the relationship between the investments a worker brings to the job and the rewards he receives from the job.<sup>2</sup> Merton's reference group theory is based upon the worker's evaluation of his own situation in relation to the accomplishments of those who compose his reference group.<sup>3</sup> The fourth theory which is based on Weber's Protestant Ethic implies that one's job satisfaction is influenced by his work values.<sup>4</sup> The proposed problem is not one of causality in that no conclusion is drawn about what causes job satisfaction or job dissatisfaction. Rather, the problem is that of discovering which theory or theories best explain the job satisfaction patterns among the unskilled laborers within the population which was chosen for investigation.

Other specific social factors such as age, education, position in the work group, seniority, ethnicity, and father's occupation, were considered to determine if there was an

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<sup>1</sup>Frederick Herzberg, Work and the Nature of Man (Cleveland: The World Publishing Company, 1966), 44-56.

<sup>2</sup>A. Zaleznik, C. R. Christensen, F. J. Roethlisberger, The Motivation, Productivity, and Satisfaction of Workers: A Prediction Study (Norwood, Mass.: The Plimpton Press, 1958), 292-293.

<sup>3</sup>Robert Merton, Social Theory and Social Structure (Glencoe: The Free Press), 234.

<sup>4</sup>Milton Blood, "Work Values and Job Satisfaction," Journal of Applied Psychology, 53 (December, 1969), 456-459.

association between each of those social factors and level of job satisfaction.

Descriptive material was gathered to provide further knowledge about the unskilled laborers who are viewed as performing an important service to an urban community. During the review of the literature a specific search was conducted for any publication about solid waste collectors and none was found. It appears that descriptive information about their family and educational backgrounds, their work values, their work histories, etc., is a contribution to sociological knowledge.

Nevertheless, the central problem was to establish the job satisfaction patterns of unskilled laborers and to attempt to explain those findings through the approach of theoretical triangulation.

#### Hypotheses Tested

Eight hypotheses were tested; five of the eight are in reaction to Herzberg's theory and each of the remaining three is based on one of the other theories previously discussed. Each of the hypotheses is stated below. Following the formal statement of the hypothesis, each is discussed individually, along with an explanation of the derivation of each. The first five hypotheses which are related to Herzberg's two-factor theory indicate that the hypotheses are

stated in opposition to his theory. The latter three hypotheses are stated to indicate that Homans' theory of distributive justice, Merton's reference group theory, and the Protestant Ethic are expected to contribute to the explanation of job satisfaction among unskilled manual laborers.

### Formal Statement of Hypotheses

- Hypothesis I: There is a negative association between the amount of physical exertion required by the job among unskilled manual laborers and job satisfaction.
- Hypothesis II: There is no significant difference in the frequencies of mentioning extrinsic factors when laborers talk about satisfying aspects of their present job and dissatisfying aspects of the job.
- Hypothesis III: There is no significant difference in the frequencies of mentioning intrinsic factors when laborers talk about satisfying aspects of their present job and dissatisfying aspects of the job.
- Hypothesis IV: There is no significant difference in the frequencies of mentioning extrinsic factors when laborers talk about the best job they have ever held and when they talk about the worst job they have ever held.
- Hypothesis V: There is no significant difference in the frequencies of mentioning intrinsic factors when laborers talk about the best job they have ever held and when they talk about the worst job they have ever held.

- Hypothesis VI: The higher the rewards in proportion to the investments of unskilled manual laborers, the higher the job satisfaction.
- Hypothesis VII: Occupational level of the reference group of unskilled manual laborers is inversely related to job satisfaction.
- Hypothesis VIII: Acceptance of the Protestant Ethic is positively associated with job satisfaction.

### Derivations of Hypotheses

Each of the eight hypotheses which has been stated is related to one of the four theories which have been discussed previously. In the pages which follow each of the hypotheses is discussed relative to the theory which influenced the construction and specific explanations are given for the hypotheses which are in opposition to the theory to which they are related.

Hypothesis I.--Hypothesis I proposes that there is a negative association between the amount of physical exertion required by the job and job satisfaction. Physical exertion is a part of the job of unskilled manual labor; in the present investigation job satisfaction was measured during Time I when the collectors were required to exert a great amount of physical energy, carrying heavy loads of solid waste on their backs. Job satisfaction was measured again approximately six weeks after the system had been changed,

referred to as Time II. The new system required only lifting plastic bags which had been filled with solid waste and set on the curb by residents. The changes which took place from Time I to Time II were classified as working conditions or extrinsic factors in Herzberg's terminology. It was expected that job satisfaction among the collectors would increase under the new working conditions in which less physical exertion was required. Amount of physical exertion increased and their job satisfaction was expected to decrease. Studies have been cited in the review of the literature which indicate that some research findings do not support Herzberg's two-factor theory of job satisfaction.<sup>5</sup> Herzberg did not test

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<sup>5</sup>Robert B. Ewen, Patricia C. Smith, Charles L. Hulin, and Edward A. Locke, "An Empirical Test of the Herzberg Two-Factor Theory," Journal of Applied Psychology, 50 (December, 1966), 544-550; George B. Graen, "Addendum to an Empirical Test of the Herzberg Two-Factor Theory," Journal of Applied Psychology, 50 (December, 1966), 551-555; Paul F. Wernimont, "Intrinsic and Extrinsic Factors in Job Satisfaction," Journal of Applied Psychology, 50 (February, 1966), 41-50; John R. Hinrichs and Louis A. Mischkind, "Empirical and Theoretical Limitations of the Two-Factor Hypothesis of Job Satisfaction," Journal of Applied Psychology, 51 (August, 1967), 191-200; Robert J. House and Lawrence A. Wigdor, "Herzberg's Dual-Factor Theory of Job Satisfaction and Motivation: A Review of the Evidence and A Criticism," Personnel Psychology, 20 (Winter, 1967), 367-387; C. A. Lindsay, E. Marks, and L. Gorlow, "The Herzberg Theory: A Critique and Reformulation," Journal of Applied Psychology, 51 (August, 1967), 330-339; B. L. Hinton, "An Empirical Investigation of the Herzberg Methodology and Two-Factor Theory," Organizational Behavior and Human Performance, 3 (August, 1968), 286-309.

his theory among unskilled manual laborers; rather, his samples came from highly skilled or professional personnel.<sup>1</sup> Herzberg would hypothesize that the decrease in physical exertion would not affect job satisfaction among unskilled manual laborers. Studies which have indicated that Herzberg's theory was not supported lend support to the assumption that his two-factor theory may not apply to unskilled manual laborers. Physical exertion is a major part of the job of solid waste collectors; therefore, it was hypothesized that changing working conditions to require less physical exertion would result in raising job satisfaction. Drivers' increase in physical exertion would result in lowering their job satisfaction.

Hypothesis II.--Hypothesis II was stimulated by Herzberg's theory but that theory was again challenged. Reasoning that extrinsic factors are most important to unskilled manual laborers, it was hypothesized that there would be no significant difference between the frequencies of expressing extrinsic factors within the two contexts of satisfying aspects of the job and dissatisfying aspects of the job.

Hypothesis III.--Hypothesis III proposes that there is no significant difference in the frequencies of naming

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<sup>1</sup>Herzberg, et al., The Motivation to Work, 32.

intrinsic factors in talking about satisfying aspects of the job and in talking about dissatisfying aspects of the job. Hypothesis III is related to Hypothesis II in that it more or less completes the testing of the two-factor theory by using the same data but the different responses to the same questions are those which are classified as intrinsic, using Herzberg's criteria for classification.

Hypothesis IV.--It was hypothesized that there would be no significant difference in the frequencies of naming extrinsic factors when talking about the best job and when talking about the worst job ever held. Hypothesis IV specifically refers to the mentioning of extrinsic factors when the subjects talk about the best job that they ever held and the worst job that they ever held. It was assumed that the majority of the solid waste collectors had never held jobs above the unskilled labor level. Therefore, having never experienced jobs which contain many intrinsic factors, they would not talk about intrinsic factors in giving their reasons for naming jobs which are best or worst.

Hypothesis V.--There is no significant difference in the frequencies of naming intrinsic factors when the subjects talk about the best job and when they talk about the worst job ever held. It was expected that intrinsic factors would be named very rarely and that intrinsic factors would not

occur more frequently in the context of satisfaction than in the context of dissatisfaction. The assumption was made that reasons for naming a job as best could be interpreted to indicate satisfying conditions and reasons for naming a job as worst could be interpreted to indicate dissatisfying conditions. Again, Hypothesis V is closely related to Hypothesis IV in that it examines the other side of the two-factor theory.

Hypothesis VI.--Hypothesis VI is based upon Homans' theory of distributive justice. It was hypothesized that the higher the rewards in portion to the investments of unskilled manual laborers the higher the job satisfaction. It would appear that a man who has a high-school education would feel that he is entitled to greater rewards from his work than his co-worker who is illiterate. It would also follow that a man who has worked for the solid waste department for several years would feel that it is unjust for a newcomer to receive the same rewards from the job. Homans' theory of distributive justice considers five of the investment factors which are generally accepted in American society as investments which should be considered in a differential reward system.<sup>1</sup>

Hypothesis VII.--Hypothesis VII is based upon what is commonly referred to as Merton's reference group theory. It

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<sup>1</sup>Zaleznik, et al., The Motivation, Productivity, and Satisfaction of Workers, 66.

was hypothesized that there is an inverse relationship between the occupational level of reference group members and job satisfaction. A person measures his own accomplishments by those of his reference group. The reference group is considered to be the father and the three best friends of the subject. The role of work in a man's life is considered of prime importance in our society. Those solid waste employees who come from families of unskilled labor and who have friends who are engaged in jobs at the same level are expected to be more satisfied in their work than those laborers whose fathers and/or friends are engaged in work which carries more prestige than the job of solid waste collector.

✓ Hypothesis VIII.--Hypothesis VIII is based upon the proposition that if the worker values hard work and the other values associated with the Protestant Ethic, he will be pleased with his job. For this reason it was hypothesized that there is a positive association between job satisfaction and acceptance of the Protestant Ethic work values. His job is a very difficult one in terms of physical exertion and getting physically tired should bring about a pleasant feeling of satisfaction.

Summary

The research problem has been stated and expanded to designate the theoretical orientations which were the sources of the hypotheses. The eight hypotheses which were tested have been formally stated and an explanation was given for the derivation of each. The first five hypotheses were oriented by Herzberg's two-factor theory of job satisfaction but in all cases the hypotheses were stated in opposition to Herzberg's theory. The three final hypotheses were based on three different theories; the hypotheses were stated to indicate the acceptance of the theories in their power to explain job satisfaction patterns among unskilled manual labor.

## CHAPTER III

### THE ORGANIZATION OF THE SOLID WASTE DEPARTMENT AND A DESCRIPTION OF OPERATIONS

#### Introduction

The purpose of the description of the organization of the Denton Solid Waste Department and its operational procedures is to provide the reader with an understanding of both the formal and the informal working relationships within the department and the contribution of each position to the goal of the department--that of removal and disposal of solid waste from within the city of Denton. An organization chart is provided to represent the formal structural organization of the department.<sup>1</sup>

The method of the removal of solid waste changed after April 15, 1973, and it is necessary to describe the methods at both periods of time. Other changes have occurred, some of which were foreseen and some of which were not. Those changes are identified in the latter part of this section.

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<sup>1</sup>Fig. 1, Organization Chart, courtesy of Mike Anderson, former Superintendent of the Solid Waste Department for Denton.

SOLID WASTE COLLECTION

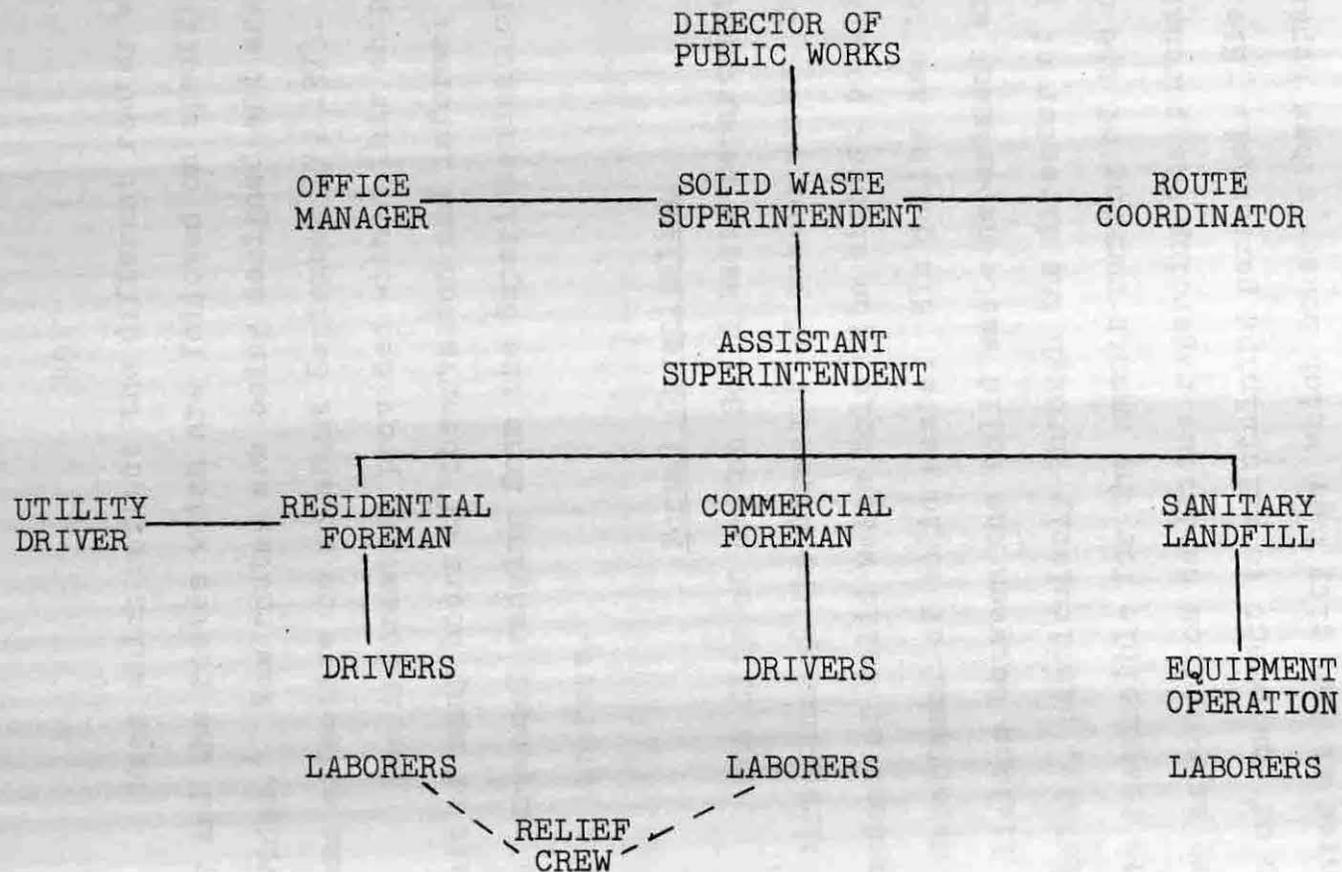


Fig. 1.--Organization Chart

Maps which reflect the different routes within the city and the routes which are followed on specific days are provided.<sup>1</sup> New routes are being designed and are expected to become effective on or about September 17, 1973.

The information provided within this chapter is the result of many hours of observation and informal conversations with personnel ranging from the Superintendent of Solid Waste to the laborers.

#### Formal Organization

The City of Denton Solid Waste Department is under the direction of the director of public works; the superintendent of solid waste holds the highest position within the department of solid waste. His duties are to serve as the liaison between the solid waste department and other city officials, particularly through the director of public works. He is responsible for the smooth running of the department in every aspect from decisions regarding the purchasing and up-keep of equipment to maintaining personnel. His office is located at the city barn which houses other departments such as the streets department, parks department, city garage, etc.

In a larger office adjoining that of the superintendent are the desks of the office manager, route coordinator,

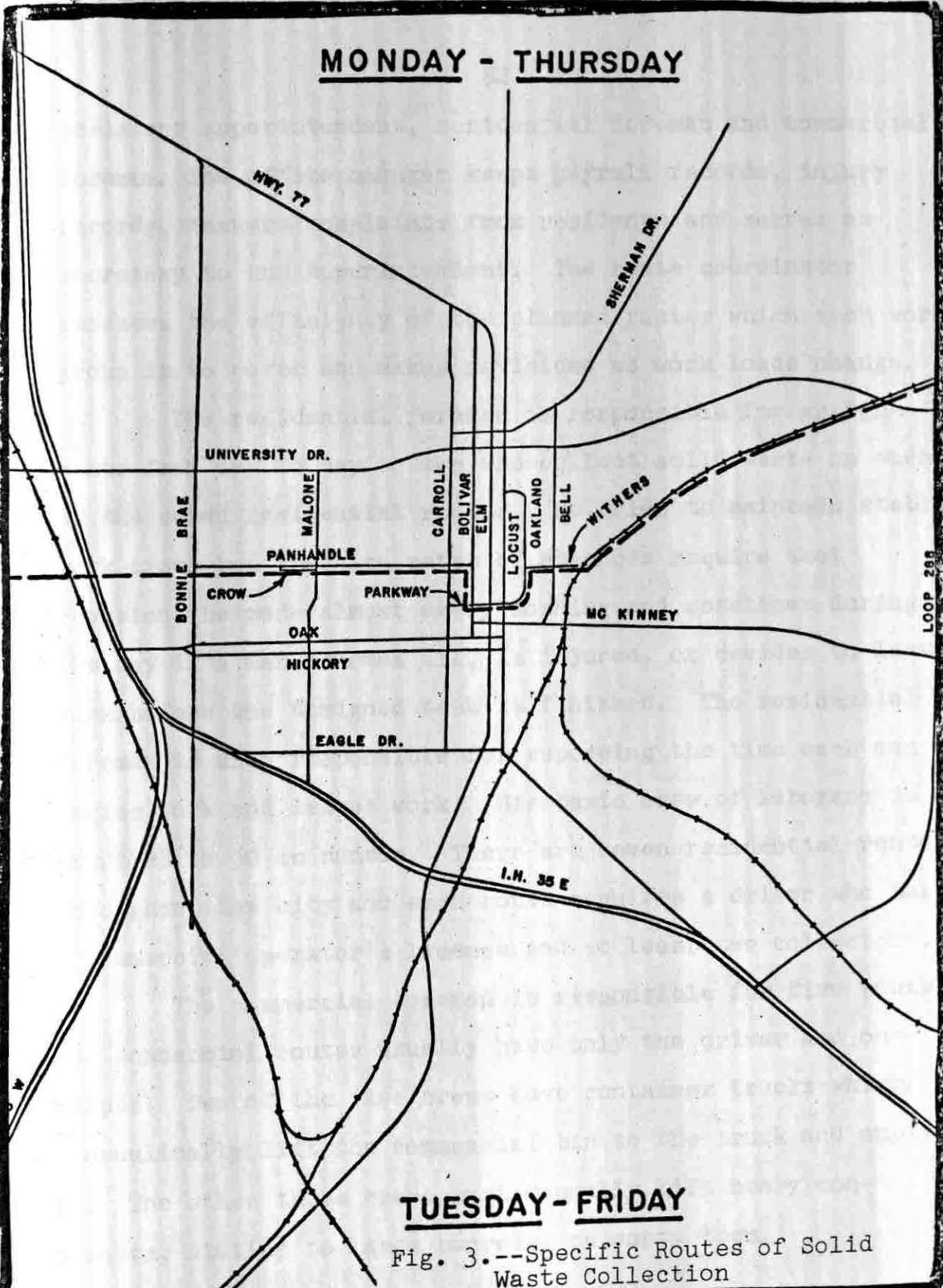
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<sup>1</sup>Fig. 2, Map of Solid Waste Collection, and Fig. 3, Specific Routes of Solid Waste Collection, courtesy of Mike Anderson, former Superintendent of the Solid Waste Department for Denton.



Fig. 2.--Map of Solid Waste Collection

MONDAY - THURSDAY



TUESDAY - FRIDAY

Fig. 3.--Specific Routes of Solid Waste Collection

assistant superintendent, residential foreman and commercial foreman. The office manager keeps payroll records, injury records, answers complaints from residents and serves as secretary to the superintendent. The route coordinator assesses the efficiency of the planned routes which each work group is to cover and makes revisions as work loads change.

The residential foreman is responsible for assignments from day to day to men who collect solid waste on each of the seven residential routes. He tries to maintain stable work crews but the high rates of absences require that revisions be made almost every morning and sometimes during the day if a man becomes ill, is injured, or decides to leave work before the assigned task is finished. The residential foreman is also responsible for reporting the time each man begins work and leaves work. His basic crew of laborers is about 28 to 30 in number. There are seven residential routes throughout the city and each route requires a driver who has a commercial operator's license and at least two collectors.

The commercial foreman is responsible for five routes. The commercial routes usually have only the driver and one helper. Two of the five crews have container trucks which hydraulically lift the commercial bin to the truck and empty it. The other three crews must manually lift heavy containers, similar to large barrels, to empty them.

There are about twelve regular drivers who are responsible for knowing their own routes and seeing that the solid waste is properly removed and delivered to the landfill.

Procedures for Residential  
Solid Waste Collection Both  
Before and After April 15, 1973

Procedures Before April 15.--The work crews reported to the city barn between five and six o'clock each morning of six days each week. The work sheet for the day had been planned the evening before by the residential foreman, taking into account substitutions which must be made for men who were known to be ill or injured. By six o'clock revisions had been made to provide for the unexpected absences and each crew left to begin the work for the day.

Prior to April 15, 1973, the driver stopped at about every fourth house for the men to collect the garbage from sites designated by the residents. Each collector carried a fifty-gallon plastic green can into which solid waste was accumulated from residential cans until the green can was filled. A heavy steel hook was provided to attach to the can and the handle was grasped by the collector by reaching his arm over his shoulder. Upon filling the can the collector returned to the curb where the truck was waiting or he waited until the truck pulled up to his location. At that time the driver had fewer stops and starts; in hot weather he had time

to step out of the truck for fresh air. In bad weather such as rain or cold he could remain inside to keep dry or warm.

During the time that solid waste was collected on site each crew had two routes to cover; one was covered on Monday and Thursday and the other was covered on Tuesday and Friday.<sup>1</sup> On Wednesday and Saturday of each week trash was collected. Trash was placed on the curb by the residents.

Procedures After April 15.--Residents were informed through newspaper announcements, radio spot announcements, and by letter of the changes that were to be made on April 15, 1973. All solid waste was to be placed in plastic bags, tied, and set on the curb sometime after 5:00 P.M. the day before the scheduled collection or before 7:00 A.M. the day of solid waste collection. The days for the collection remained the same. The solid waste department employees delivered a six-month supply of plastic bags to each residence, along with printed instructions for preparation and placement of both solid waste and trash.

After those changes were made, the work crews could leave at 7:00 rather than 6:00 A.M. for the day's work. The driver then stopped at each house for the bags to be picked up and tossed into the back-loader truck. The driver no longer had periods of rest while the collectors went from house to house but was constantly starting and stopping.

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<sup>1</sup>See Fig. 3, p. 51.

The collectors no longer had to carry heavy loads on their backs; no one bag was to be filled with more than fifty pounds. Both the collectors and the drivers have experienced changes in their work procedures.

#### Other Departmental Procedures

Hiring practices.--During an interview with the Personnel Director for the City of Denton, the point was made that keeping a sufficient supply of laborers was very difficult. The principal requirements for the job were a strong back and a clear police record insofar as theft or sex crimes were concerned.

Pay and fringe benefits.--During the early spring of 1973 the laborers or collectors received a beginning pay rate of about \$1.80 per hour and drivers received about \$2.00 per hour. Seniority was considered in small increments leading to differential pay scales. Workers were paid for overtime but overtime pay was at the regular rate rather than time and a half. Since that time overall raises have been granted and by August of 1973 new laborers begin at \$2.10 per hour.

The city pays for sickness and accident insurance for each of the employees. Each man is eligible for 15 days of sick leave each year but there is no limit to the number of days he may receive pay for an injury. City workers who are classified as laborers cannot receive retirement benefits.

Physical facilities.--During the last months of 1972 and the early months of 1973 the employees of the solid waste department volunteered their own time to make improvements in their section at the city barn. Each departmental space has a front door and a back door but no doors leading directly into another department. During the fall of 1972 when the investigator first visited the site of the solid waste department, there was one large dreary room and a smaller room which provided desk space for the superintendent and another desk which was shared by other office workers.

It is assumed that city funds provided the materials with which partitions were made to provide a large office which now houses four desks occupied by the office manager, the assistant superintendent, the residential foreman, and the commercial foreman. The route coordinator appears to share a desk with the office manager. The walls have been painted and the space which remains has been designated as the area in which the workers, drivers and collectors, may sit before and after work to visit or drink coffee. The seats appear to be those which are found in old movie theatres and were probably salvaged from some source. They are in poor condition but do provide places for the workers to sit. A commercial coffee machine provides coffee for 10¢ per cup. The profits from the coffee are placed in a box designated "flower fund." When an employee or a member of his

immediate family is hospitalized, flowers are sent. It is expected that each employee will drop in 25¢ or more each pay-day which comes every two weeks. With the money which remains in the box at Christmas a dinner is shared by the employees and their families.

During the month of June, 1973, an air-conditioning system was installed by the employees. During the June interviews various employees were still trying to correct the wiring as it had been established that something was wrong with the operation.

Aside from the physical housing facilities of the department, the trucks appear to be a major source of annoyance. Many of the trucks are old and break down frequently; new equipment has been approved but has not yet arrived. It is not clear how much new equipment is to be granted but it appears that no present equipment will be retired. One or two new trucks will relieve the necessity of using one or two of the trucks on a 24 hour basis as is now the case.

#### Recent Changes and Proposed Changes

During the latter part of July, 1973, the Superintendent of the Solid Waste Department announced his resignation; he had accepted the position of Assistant Director of Public Works in a larger city. A visit to the department confirmed the expectation that morale would drop; the superintendent

was well-liked by all of the men in the department and he was credited with the many improvements and planned improvements which affected the working conditions and rewards of both office personnel and the laborers. It was feared that a new superintendent would not be so sympathetic nor so interested in improving the department.

Until a new superintendent is hired, the former assistant superintendent will serve as acting superintendent. Morale appears to have improved after the director of public works met with the men and has indicated that the proposed plans will continue. Raises have been granted and the laborer now begins at \$2.10 per hour. It is expected that the four-day work week will go into effect as planned in September. The men will work four ten-hour days rather than five and a half days. The proposed route changes will equalize the work loads for each crew.

#### Other Observations

The top positions are held by men who attained fifth-grade educations and began with the department as collectors. The route coordinator began as office manager after he had obtained a degree in political science and had begun work on the master's degree. Although he was given the title of office manager, he received the same pay as the collectors. The present office manager received a college degree in

elementary education; the commercial supervisor has had some college work and takes a course or two when time permits. The congenial working relationships among these people of such different educational levels is interesting to observe. There appears to be no resentment or jealousy among the personnel. Each has his duty to perform but there is free discussion among them if help is needed in making decisions.

## CHAPTER IV

### RESEARCH DESIGN AND PROCEDURES

#### Specific Problems Related to Research Among Unskilled Manual Laborers

The problems related to job satisfaction investigations among unskilled manual laborers include those discussed previously in Chapter II, but another very serious problem is added. The problem of communication between the investigator and the subject is one which should be carefully considered. Unskilled manual laborers may be expected to have low educational attainments and limited development in expressing themselves verbally. Attitude research usually involves the understanding of verbal symbols and communication of responses through the same modality. In addition to these problems one encounters the added problem of illiteracy; even though many of the respondents may have attended grade school, they remain functionally illiterate. That fact indicates that the investigator is limited in techniques of data collection. Self-administered questionnaires cannot be used and interviewing appears to be the only method of acquiring responses to questions about the respondent's attitudes. Leslie G. Carr<sup>1</sup>, among others, has recognized the problem

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<sup>1</sup>Leslie G. Carr, "The Srole Items and Acquiescence," American Sociological Review, 36 (April, 1971), 287-293.

of acquiescence in conducting interviews with respondents who are in a socially subordinate class.

A longitudinal study among unskilled manual laborers has an additional problem which one would not expect to encounter among either professional or highly skilled personnel. Turnover rates are expected to be high among unskilled labor and if more than a few weeks intervenes between the first contacts and the last contacts, cases are lost.

In the area of job satisfaction it is entirely possible that unskilled manual labor may not value the same characteristics of a job which are considered to be valued by employees at higher levels. Expectations of rewards from the job may differ, depending on the levels of jobs held by respondents.

The problems which have been identified to exist in research among unskilled laborers may explain the fact that little research in the area of job satisfaction has been reported for this level of employment.

#### Theoretical Triangulation

Theoretical triangulation appears to provide the appropriate strategy for the research problem. Denzin defines theoretical triangulation as "the use of several different

perspectives in the analysis of the same set of data."<sup>1</sup> Of the four theoretical perspectives employed, Herzberg's two-factor theory of job satisfaction has received more attention in the review of the literature than any other one theory. Merton's reference group theory, Homans' theory of distributive justice, and the acceptance of the Protestant Ethic work values follow the conventional approach in the perception of job satisfaction as operating on a continuum from satisfaction to dissatisfaction. Hypotheses related to each of the four theoretical perspectives were tested to determine which theory best explains job satisfaction among the subjects of the investigation.

### The Collection of Data

#### Sampling Method

The sampling method is one which James S. Coleman describes as "saturation sampling" in which "everyone within the relevant social structure" is interviewed.<sup>2</sup> The number of solid waste department manual laborers fluctuated between forty and forty-five. Thirty-five were interviewed in March and thirty-seven in June. The total number of different

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<sup>1</sup>Norman K. Denzin, Sociological Methods: A Source-book (Chicago: Aldine Publishing Company), 472.

<sup>2</sup>James S. Coleman, "Relational Analysis: A Study of Social Organization with Survey Methods," in Paul F. Lazarsfeld, Anna K. Pasanella and Morris Rosenberg, eds. Continuities in the Language of Social Research (New York: The Free Press), 1972, 261.

respondents is forty-five. The forty-five may be considered to constitute the population investigated or within another context, if certain assumptions are made, the forty-five may be considered a sample of solid waste collectors who have been employed by Denton in the past and will be employed in the future.

### Research Design

There was no time factor imposed upon the collection of information required to test the theories other than that of Herzberg. Herzberg's theory presented a different problem; in order to determine if working conditions affected job satisfaction of the unskilled manual laborers, a quasi-experimental design was implemented. Proposed changes were to be made during the month of April, 1973, and it was considered a special opportunity to submit that portion of Herzberg's theory to a test. Job satisfaction scores for respondents were obtained during the first weeks of March; the physical changes in the working conditions were made during the days following April 15, 1973. During the first three weeks of June, 1973, the second interviews took place and the same job satisfaction index was administered.

### Operational Definitions

Job Satisfaction.--Job satisfaction was measured by Brayfield and Rothe's Job Satisfaction Index. The scores

range from 18 to 90 and the neutral point is 54. Any score below 54 was considered to indicate dissatisfaction and any score above 54 was considered to indicate satisfaction.<sup>1</sup>

Seniority.--Seniority is measured by the number of months or years the respondent reported that he had worked in the department.

Stability.--Stability refers to work stability and is measured by the number of jobs the respondent reported having held within the past five years.

Mobility.--Mobility is measured in terms of vertical mobility or horizontal mobility. If the father's major occupation is above the ranking of unskilled manual labor, the respondent is considered to be downwardly mobile. If the father held or holds a job as an unskilled manual laborer, then the respondent is considered to be horizontally mobile.

Extrinsic factors.--Extrinsic factors are those factors which are related to the avoidance of pain or unpleasant situations. They are also defined as the context of the job.

Intrinsic factors.--Intrinsic factors are growth factors or the content of the job itself.

Working Conditions, Time I.--Working conditions during Time I refer to the conditions under which the solid waste

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<sup>1</sup>Arthur H. Brayfield and Harold F. Rothe, "An Index of Job Satisfaction," Journal of Applied Psychology, 35 (October, 1951), 309.

was prepared by the resident for collection. During Time I the collector was required to walk to any site designated by the resident and empty the garbage into a large can which he carried on his back. Those conditions existed prior to April 15, 1973.

Working Conditions, Time II.--Working conditions during Time II refer to the conditions under which solid waste was prepared by the residents after April 15, 1973. The residents were required to place the solid waste in plastic bags, tie each bag, and place it on the curb. The collector picked it up at the curb and placed it directly into the solid waste collection truck.

M-H Theory.--M-H Theory refers to Herzberg's two-factor theory of job satisfaction. The "M" comes from the motivator or intrinsic factor which influences job satisfaction; the "H" comes from the hygiene factor or extrinsic factor which influences job dissatisfaction.

R-I Index.--R-I Index refers to the index developed by Homans to reflect a measure of distributive justice. "R" is the reward factor and "I" is the investment factor.<sup>1</sup>

RGI.--RGI is the Reference Group Index developed for the purpose of testing reference group theory in the present

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<sup>1</sup>A. Zalesnik, C. R. Christensen, F. J. Roethlisberger with the assistance and collaboration of George C. Homans, The Motivation, Productivity and Satisfaction of Workers: A Prediction Study (Boston: Harvard, 1958), 70.

research. Each member of the reference group is ranked by the location of his job as follows.

Unskilled Manual Labor = 1  
 Semi-skilled Manual Labor = 2  
 Skilled Manual Labor = 3  
 Non-Manual Labor = 4

The scores of members of the reference group are summed and divided by the number included in the reference group to arrive at the RGI.

PE Index.--PE refers to the Protestant Ethic work values developed by Blood.<sup>1</sup> There are four items and the score may range from a high of four to zero, which is an absence of acceptance of the Protestant Ethic work values.<sup>2</sup>

JSI.--is the abbreviated reference to the score obtained from the Job Satisfaction Index used to measure the dependent variable, job satisfaction.

SWC.--SWC is the abbreviated reference to the "Satisfaction With Work Characteristics" developed to ascertain the appraisal of particular characteristics of the job by the solid waste collectors.

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<sup>1</sup>Milton R. Blood, "Work Values and Job Satisfaction," Journal of Applied Psychology, 53 (December, 1969), 456-459.

<sup>2</sup>Ibid., 456.

Identification of Data Collected to Test  
Hypotheses Related to Each of the  
Four Theories which Oriented  
the Investigation

Herzberg's Theory

Five hypotheses were based upon Herzberg's two-factor theory of job satisfaction. Assessments of job satisfaction both before and after changing of working conditions were needed to test Hypothesis I; to test the other four hypotheses related to Herzberg's theory, frequencies of references to extrinsic or intrinsic factors by the subjects were obtained in answers to certain questions.

The Job Satisfaction Index was administered to the employees during the first interview session and again during the second interview.<sup>1</sup> Job satisfaction levels before the April 15 changes and after the April 15 changes were compared to determine what effects, if any, the changes in working conditions had made.

There were two sets of questions which were asked to determine the frequency of the reference to extrinsic factors and intrinsic factors in talking about situations which were judged to reflect dissatisfaction or satisfaction. One set of questions asked about the best job ever held and the worst job ever held by the respondent and his reasons for designating

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<sup>1</sup>Copy of the Job Satisfaction Index appears in Appendix, p. 189.

those jobs as best or worst.<sup>1</sup> The other set dealt with the questions of what characteristic was liked best and what characteristic was not liked about the present job.<sup>2</sup> Answers to those questions were classified as either extrinsic or intrinsic in order to know if intrinsic factors appear to act as satisfiers among solid waste collectors or if extrinsic factors serve as satisfiers among the solid waste collectors.<sup>3</sup>

The foregoing specified information provided data for the testing of the hypotheses related to Herzberg's two-factor theory of job satisfaction. A description of how the hypotheses were tested is given at a later point.

#### Homans' Theory of Distributive Justice

Hypothesis VI was based on Homans' Theory of Distributive Justice. The data for the testing of the hypothesis were gathered at various points during the first interview or were taken from departmental records. The age of the respondent was estimated from the knowledge of the year of his birth. In all cases it was assumed that the respondent

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<sup>1</sup>Copies of questions appear on p. 1 of the Interview Schedule in Appendix, p. 184.

<sup>2</sup>Copies of question appear on p. 1 of Interview Schedule in Appendix, p. 184.

<sup>3</sup>See pp. 195-203, Appendix (list of Responses and Classifications).

had not had a birthday in 1973, unless the month and day of birth were given. In most cases the respondent only volunteered the year and he was not asked for the month and day. Seniority was gained from the question of how long the respondent had been employed in the solid waste department; educational level of the respondent was asked during the latter part of the interview. The other variables required to test the hypothesis related to the theory of distributive justice were ethnic status, sex, and pay received. Ethnic status was inferred from the respondent's surname. If the surname appeared to be Spanish, he was classified as Spanish or Mexican-American.<sup>1</sup> Other respondents were classified as Anglo-American; there were no blacks employed in the solid waste department. All respondents were male. Age, sex, ethnic status, educational level, and seniority informations were required for Homans' formula of distributive justice. Those five variables composed the investment factor; the sixth variable, pay, was considered the reward factor. From departmental records the total amount of pay for the month prior to the interview was determined for each respondent. The workers are paid every two weeks which required that two pay-checks for each respondent were added together. The total amounts were ranked and

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<sup>1</sup>Although those respondents are classified as Mexican-American, it should be noted that they referred to themselves and were referred to by others within the department as Spanish.

divided into four different levels in order to apply Homans' formula. The formula itself and the values assigned to each level of each variable is described elsewhere.<sup>1</sup>

### Reference Group Theory

To test the Hypothesis VII related to reference group theory the occupations of those who were assumed to compose the respondent's reference group were required. The father and the three closest friends were considered to compose the reference group; the occupation of the father was considered that which the father now followed, if he were living; if he were no longer living, the respondent was asked what type of work his father usually did during his life-time or what type of work his father was engaged in when the respondent was about twelve to fourteen years of age.

Each respondent was asked to think of his three best friends, those people with whom he enjoyed visiting or spending time when he was not working.<sup>2</sup> Then he was asked to tell the investigator what type of work each of the three friends were engaged in at that time. Some respondents were unable to think of three close friends; at least one man said that he had no close friends, while one or two others referred to

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<sup>1</sup>See pp. 83-84.

<sup>2</sup>See p. 1 of Interview Schedule in Appendix, p. 184.

groups of people such as "just my family," or "just the people at church." Those who could provide no occupational information for their friends or could only think of one friend, were judged to contain fewer in their reference groups than did those respondents who could give the occupation of the father and each of three friends. However, the majority of the respondents did give an occupation for their fathers and at least one or two friends. Explanation of how the occupations were ranked and how the reference group index was formed is given elsewhere.<sup>1</sup>

### Protestant Ethic Work Values

Hypothesis VIII is related to Protestant Ethic work values. Milton Blood's eight-item scale was given to the respondents during the second round of interviewing in June. Only four of the eight items form the Protestant Ethic Work Value Index which Blood identified (items 2, 4, 6, and 7) as reflecting Protestant Ethic work values were used. In his own research Blood identified those items as composing Dimension I. The remaining four items measured something but he could not say what it measured. Blood suggested that further research was required before one could define Dimension II which consisted of items 1, 3, 5, and 8. He also suggested that anti-Protestant Ethic Items should be developed and

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<sup>1</sup>See pp. 84-85.

incorporated into the scale. He referred to Dimension II as non-Protestant Ethic items.<sup>1</sup> A copy of the eight items appear in the Appendix of the present work.<sup>2</sup>

### Procedures for Testing Hypotheses

#### Test of Hypothesis I

Hypothesis I stated that there is a negative association between the amount of physical exertion and job satisfaction among unskilled manual laborers. If there is a negative association between the amount of physical exertion and job satisfaction within the population investigated, job satisfaction would be higher during the second interviews than during the first interviews. However, the assumption must be made that the amount of physical exertion after April 15, 1973, is less than that required prior to April 15, 1973.

To test Hypothesis I only the job satisfaction scores for those employees who participated in both interview sessions and for whom job satisfaction scores were obtained at both times were considered. An appropriate nonparametric test was chosen to determine whether or not there was a significant change in job satisfaction among the respondents

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<sup>1</sup>Blood, "Work Values and Job Satisfaction," 458.

<sup>2</sup>See Work Value items appearing in Appendix, p. 194.

from Time I to Time II. The sign test was chosen because it takes into consideration the direction of the differences at Time I and Time II.<sup>1</sup> The hypothesis will be rejected if the level of significance is not .05 or less.

### Test of Hypothesis II

Hypothesis II states that there is no difference between the frequencies of mentioning extrinsic factors when the subjects are talking about what they like best about their jobs and when they are talking about what they do not like about their jobs.

Herzberg would say that extrinsic factors would be mentioned when they are talking about what they do not like about their jobs and intrinsic factors would be mentioned when they are talking about what they like best about their jobs.

The responses to the two questions were listed under the heading of "Like" and "Don't Like". Each of the responses was classified as extrinsic or intrinsic but for the test of the hypothesis, only the number of extrinsic responses were counted under each heading. The chi-square one-sample test was chosen to test the hypothesis. If the difference in

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<sup>1</sup>Sidney Siegel, Nonparametric Statistics for the Behavioral Sciences (New York: McGraw-Hill Book Company, 1956), 68-75.

frequencies is not significant at the .05 level of significance, Hypothesis II will not be rejected. The conclusion will be that the actual frequencies do not differ from the expected frequencies. If the obtained chi-square is found to be significant at the .05 level or less, then Hypothesis II will be rejected.

### Test of Hypothesis III

It was hypothesized that there would be no difference in frequencies of mentioning intrinsic factors in talking about satisfying aspects of the job and the mentioning of intrinsic factors in talking about dissatisfying aspects of the job. It was expected that few intrinsic factors would be mentioned in either context because (1) few intrinsic factors have been observed in the job and (2) extrinsic factors, such as physical exertion, make up the major part of the job. If some intrinsic factors were mentioned, it was not expected that there would be any difference in the frequencies of the occurrence when the respondents were talking about satisfying aspects and when they were talking about dissatisfying aspects of the job of solid waste collector. If a test of significance results in a probability level of .05 or less, the hypothesis will be rejected.

Test of Hypothesis IV

Hypothesis IV is related to Hypothesis II in that it is testing the same relationship between extrinsic factors and job satisfaction. Hypothesis III is based on different questions, however. The respondents were asked to tell why a job was considered the best job ever held and why another job was considered the worst job ever held. Again the responses were listed under two different headings of "Best Job" and "Worst Job" and classified as extrinsic or intrinsic responses. The number of extrinsic responses in each category were counted. The chi-square one-sample test was chosen for testing the hypothesis.<sup>1</sup> If the observed differences differ significantly from the expected differences, the hypothesis of no difference cannot be rejected. But if the chi-square is not found to be significant at the .05 level or less, the conclusion will be that Hypothesis IV is supported.

Test of Hypothesis V

Hypothesis V proposes that there is no difference in frequencies of mentioning intrinsic factors in the context of talking about the best job ever held (satisfaction) and the worst job ever held (dissatisfaction). The frequencies based on the answers to questions which are different

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<sup>1</sup>Ibid.

from the questions involved in Hypothesis II and Hypothesis III, but data are categorized in the same manner, as either extrinsic or intrinsic factors. Hypotheses II and III are concerned with the job of the solid waste collector, while Hypotheses IV and V are concerned with the past job experiences. If the differences in frequencies of mentioning intrinsic factors differ between the two contexts at the .05 level or less, Hypothesis V will be rejected.

#### Test of Hypothesis VI

Hypothesis VI states that the higher the rewards in proportion to the investments of unskilled manual labor, the higher the job satisfaction. Homans' formula for distributive justice produces scores of less than 100 for those who are investing more than they receive and more than 100 for those who are receiving more than they invest. Another way of stating the hypothesis is that the higher the score from the formula for distributive justice, the higher the job satisfaction score. The R-I Index for each respondent was ranked as "high" or "low," and the job satisfaction scores were ranked as "high" or "low." Yule's Q was the measure of association chosen to determine if those who invest less and receive more are more satisfied than those who invest more and receive less.<sup>1</sup> If a positive Q is found, the hypothesis is supported.

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<sup>1</sup>John H. Mueller, Karl F. Schuessler, and Herbert L. Costner, Statistical Reasoning in Sociology (2nd ed.; Boston: Houghton-Mifflin, 1970), 290-292.

### Test of Hypothesis VII

Hypothesis VII states that job satisfaction is inversely related to the occupational level of the reference group. The higher the reference group index, the more distance there is between the occupational level of the worker and the combined occupational level of his reference group. His job of unskilled manual labor received a score of "1" and any RGI above "1" indicates that his reference group may be considered more successful in work than he is. Yule's Q was chosen to test Hypothesis VII. If a negative Q is obtained, then the hypothesis will be supported.

### Test of Hypothesis VIII

Hypothesis VIII states that job satisfaction is positively associated with the acceptance of the Protestant Ethic work values. Each respondent received a score of from 1 to 4 on the PE Index. Yule's Q was the measure of association chosen to test the hypothesis. If a positive Q is obtained, then the hypothesis is supported.

### The Measurement of the Dependent Variable

The instrument by which job satisfaction was measured is Brayfield and Rothe's Job Satisfaction Index.<sup>1</sup> The eighteen items are very general and are intended for use at any job level. Although it was intended for self-administration,

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<sup>1</sup>See copy of Job Satisfaction Index in Appendix, p. 189.

items were read to the respondents. Many of the subjects are functionally illiterate and to eliminate embarrassment which may have resulted if some subjects were designated for differential treatment, it was considered more desirable to gather all information from each subject through the interviewing technique.

The reliability and validity of the Job Satisfaction Index has been presented in Chapter I.<sup>1</sup> In using the index it was found that many of the subjects experienced difficulty in understanding some of the items and further interpretation and explanation was deemed necessary. Item 10 gave difficulty in almost every case.<sup>2</sup> In item 1 the word "hobby" had to be defined for almost every respondent; in item 5 the word "leisure" was not understood and in item 13, the word "enthusiastic" gave much difficulty.<sup>3</sup> Even so, it is felt that the chosen index of job satisfaction is the simplest one of all those reviewed which were general and could apply to any occupation. Often respondents resisted giving answers to statements which involved their evaluations of others such as "I like my job better than the average worker does." (item 15) Respondents would consistently comment, "I know

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<sup>1</sup>See pp. 32-34.

<sup>2</sup>See copy of Job Satisfaction Index in Appendix, p. 189.

<sup>3</sup>See copy of Job Satisfaction Index in Appendix, p. 189.

how I like my job but I don't know about other people." The investigator encouraged the respondents to guess but if further resistance was encountered, the item was marked "undecided."

### Satisfaction with Work Characteristics

Although job satisfaction was measured by Brayfield and Rothe's index, it does not reflect satisfaction with particular areas of the job. The job satisfaction scale was chosen for its general applicability and because it was not tied to any particular type of work. The "Satisfaction with Work Characteristics" was constructed to evaluate how the subjects felt about specific areas of their jobs.<sup>1</sup> Sixteen of the eighteen questions included relate to job characteristics which were selected for inclusion after observation and informal conversations with personnel both at the office level and workers who drifted in through the "coffee room" during the fall of 1972 and the spring of 1973. An attempt was made to understand the organization of the department and how the actual collection of solid waste was accomplished. The statements to which the respondents were to express agreement or disagreement are based on characteristics of the job at the level of the individual worker's perception of the

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<sup>1</sup>See copy of "Satisfaction with Work Characteristics" in Appendix, pp. 187-188.

difficulty of the job, the amount of energy expended, his perception of the people whom he serves in the city as well as his perception of the departmental personnel, including supervisors and co-workers. The worker's view of his reward in monetary form as well as appreciation from subscribers was considered in the formation of some of the statements.

Seventeen of the eighteen questions under the heading of "Satisfaction with Work Characteristics" actually pertain to characteristics of the specific job of collecting solid waste. The seventeen questions were constructed after hours of observation and of informal conversations with personnel ranging from the superintendent to the collectors.

The seventeen questions may be classified as

- I. The actual process of doing the work,
- II. Relationships with the public,
- III. Relationships with supervisors,
- IV. Relationships with the peer group, or
- V. Results of doing the work.

#### Category I Questions

- 1. How satisfied are you with your hours--the time that you come to work and the time that you get off?
- 3. How much does it bother you working outside in all kinds of weather?
- 7. Do you think you will like your job better when all garbage is set on the curb in bags?
- 10. Do you feel pushed to work faster than you would like to?
- 13. How much does getting dirty while you are working bother you?

Category II Questions

5. How much do you think people on your route appreciate what you are doing for them when you remove their garbage and trash?
6. How much does it bother you when people call in and say that you have not picked up their garbage or trash?
12. Do any of the people on your route ever thank you for what you are doing?

Category III Questions

8. Do you feel that your supervisor would like for you to make suggestions of ways to improve your job?
11. Does anyone in the Sanitation Department ever tell you that you are doing a good job?
18. How sure are you that you can keep your job for as long as you want to?

Category IV Questions

2. How satisfied are you with the people with whom you work?
4. How satisfied are you with the pay that you get?
14. How often do you get so tired that you would like to quit your job?
15. How often do you get so tired that you stay tired for the rest of the day?
16. How often do you get so tired that you don't feel like doing the things that you want to do when you are not at work?
17. Considering the things about your job that are important to you, just how satisfied do you think you are with your job?

Scoring Procedures

The Job Satisfaction Index was scored as suggested by the authors and the R-I Index for use with the theory of distributive justice follows the formula developed by Homans.

The numerical rankings assigned to ordinal and interval data used in the formula followed his examples as nearly as possible. It was necessary to develop a scoring system for "Satisfaction with Work Characteristics" and for the Reference Group Index. The scoring of the Protestant Ethic work values was adapted from Blood's scoring system. In the following pages each of the scoring procedures is explained and illustrated.

#### Reward-Investment Index (R-I Index)

Following Homans' example scores were assigned to each of the six variables required in the formula for distributive justice. Numerical scores were given to nominal data such as sex and ethnicity. In Homans' theory of distributive justice being male demands greater rewards in terms of position and pay than being female. Even though all of the respondents are male, sex is assigned the maximum score of 20 points in order to preserve the possible 100 as the investment factor score. Table I illustrates exactly which raw data receive what score in the Distributive Justice Formula for arriving at the Reward-Investment Index (R-I). After it was determined what score was to be assigned to each factor involved in the R-I formula, the scores were substituted and the Index calculated for each

TABLE 1

NUMERICAL VALUES GIVEN TO VARYING DEGREES OF REALIZATION OF VALUES  
IN SIX STATUS FACTORS WHICH COMPRISE THE  
DISTRIBUTIVE JUSTICE INDEX<sup>a</sup>

Status Factors											
Education Attained	Value Given	Age	Value Given	Sex	Value Given	Ethnicity	Value Given	Seniority	Value Given	Pay	Value Given
11 or more years	20	Over 45	20	Male	20	Anglo	20	7 years or more	20	\$633.90 -555.28	20
8-10 years	15	35-45	15					4, 5, 6 years	15	\$543.00 -435.00	15
5-7 years	10	25-34	10	Female	10	Spanish	10	1, 2, 3 years	10	\$434.08 -383.80	10
0-4 years	5	16-24	5					less than 1 year	5	\$380.00 -315.40	5

<sup>a</sup>Table is patterned after Table 2.1, p. 69 of Zaleznik, Christensen and Roethlisberger's Motivation, Productivity, and Satisfaction of Workers.

respondent. The R-I formula and instructions for calculation are given below:<sup>1</sup>

#### Reward-Investment Formula

$$\begin{aligned}
 &100 + (p-a) + (p-sn) + (p-ed) + (p-eth) + (p-sx) = \\
 &100 + 5p - (a + sn + ed + eth + sx) = \\
 &100 + (\text{job status} - \text{social status})
 \end{aligned}$$

#### Key to Symbols in Formula

- p = pay received  
 a = age of respondent  
 sn = length of time employed on the job (seniority)  
 ed = education of the respondent  
 eth = ethnicity  
 sx = sex of respondent  
 job status = the score assigned to "pay" x 5.  
 social status = the sum of the scores assigned to age, education, ethnicity, and sex.

#### Reference Group Index (RGI)

The data for the formation of the reference group index are derived from responses to two questions.

What kind of work does your father usually do or what kind of work has he done for most of his life? If he is not living, what kind of work did he do

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<sup>1</sup>Zaleznik, et al., The Motivation, Productivity and Satisfaction of Workers, 70.

while he was living--about the time you were 12 to 14 years old?

Think of your three best friends--people with whom you enjoy visiting or talking with when you are not at work? What kind of work do they do?

The occupations given for the fathers and for the three friends of the respondents were classified and scored as follows.

Category	Score
Unskilled labor	1
Semi-skilled labor	2
Skilled labor	3
Non-manual occupation	4

The respondent's own job received a score of "1" as it is considered unskilled labor. The scores of his friends and his father were added and divided by the number in the reference group. The number varied as some respondents did not think of three friends or stated that they had no friends. The reference group score is compared to the respondent's score of "1"; the higher the reference group score, the lower the job satisfaction score is expected to be.

#### Job Satisfaction Index (JSI)

The responses to the statements in the job satisfaction index are scored from 1 through 5, or from 5 through 1, depending upon the direction in which the authors specified

the scoring to proceed. Agreement with one statement may indicate satisfaction, agreement with another statement may indicate dissatisfaction. The final JSI can range from 18 to 90 with 54 as the neutral point.

### Satisfaction with Work Characteristics

Responses to questions about work characteristics were scored from one to three, one to four, or one to five, depending upon the number of choices offered to the worker. In every case the higher number indicates higher satisfaction with the characteristic. An index was not formed but the characteristics were classified into one of five categories and analyzed by high, medium or low satisfaction expressed. For some questions frequencies of certain behaviors formed the classifications rather than satisfaction with characteristics themselves.

### Protestant Ethic Work Values (PE Index)

Blood's scoring procedures were not followed. The index was composed of eight items, four of which he identified as Pro-Protestant Ethic work values and the remaining four items were non-Protestant Ethic work values but he could not say what values they were; they were not Anti-Protestant Ethic work values. The Pro-Protestant Ethic items composed what he identified as Dimension I and each item

could receive a score from one to six. Only Dimension I was scored in the present investigation and the respondent was only asked to agree or disagree with the items. Agreement received a score of one and disagreement received a score of zero. Items 2, 4, 6, and 7 are the Pro-Protestant items and 1, 3, 5, and 8 are the non-Protestant Ethic Items.<sup>1</sup> The PE Index developed for the present investigation could range from 0 to 4.

#### Summary Statement

Specific problems related to research among unskilled manual laborers have been cited. The measurement of attitudes, such as job satisfaction, presents particularly difficult problems to the sociologist, but when the subjects come from a population having high rates of illiteracy, the severity of the problem becomes more evident.

The strategy of theoretical triangulation has been defined; the four theoretical frames of reference which were considered have been described. The data related to each theory have been identified.

The sampling method was that defined by Coleman as "saturation sampling." Data were collected through semi-structured interviews with the subjects, observation, the

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<sup>1</sup>Blood, "Work Values and Job Satisfaction," 456.

use of informants who were not the subjects, and departmental records.

Operational definitions have been given following Blalock's specifications.<sup>1</sup> Procedures for the testing of each hypothesis have been identified. Specific attention was given to the index which measured the dependent variable, job satisfaction.

The section of questions which dealt with specific aspects of the job were identified and classified into five groups, depending upon the content and purpose of each question.

Scoring procedures were explained. Several indices were used in the research, some of which were original to the present study, two of which represent adaptations of indices previously constructed by other authors. The measurement of job satisfaction was scored according to Brayfield and Rothe but the administration of the job satisfaction scale was not self-administered as intended by the authors. Words were changed when the response or lack of response indicated that the respondent did not understand the statement in the original form.

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<sup>1</sup>Hubert M. Blalock, Jr., Social Statistics (New York: McGraw-Hill, 1960), 9-10.

There was a wide range of educational attainment represented among the subjects. The lack of the knowledge of conversational Spanish on the part of the investigator complicated the communication process as several of the subjects spoke little English. The interviewing procedures followed were adapted as much as possible to each individual.

## CHAPTER V

### DESCRIPTION OF THE POPULATION

The population which served as subjects in the investigation of job satisfaction were 45 men employed as unskilled manual laborers in the City of Denton Solid Waste Department in March or June of 1973. Thirty-seven men were interviewed in March and another eight were interviewed for the first time in June; three of the eight were new employees and the other five had been unavailable or failed to cooperate in March.

#### Demographic Characteristics

The demographic variables which are available for the purpose of describing the population are age, ethnic classification, educational attainment, marital status, and number of children. Each of those characteristics is discussed below.

#### Age Composition

The subjects range in age from 16 to 58 years; the mean age is 29.5 years but the median age is 24 years. When the subjects are grouped into age categories, the frequencies and percentages are distributed as indicated in Table 2.

TABLE 2

DISTRIBUTION OF SOLID WASTE  
EMPLOYEES BY AGE

Age Category	Frequency	Per Cent
16-19	10	22.7
20-24	13	29.5
25-29	5	11.4
30-34	3	6.8
35-39	4	9.1
40-60	9	20.5
Totals	44	100.0

The number of respondents who are categorized by age is 44; one of the respondents was unable to give his age but was judged to be in his mid-thirties. The four middle categories in the table include spans of five years but the category of 40-60 includes a span of 21 years and includes only 20.5 per cent of the population. In contrast, a comparable number of years covered is 20-39 years which accounts for 78.9 per cent of the population.

The median appears to be the proper measure of central tendency. There may be other possible explanations for the median age of 24 years but one important factor may be that older men are unable to endure the heavy lifting and carrying the solid waste on their backs.

### Educational Attainment

Although a large percentage of the population appeared to be functionally illiterate, there was no one who said that he had received no formal education. The years of education attained ranged from one year through twelve years; one subject is attending his first year of college. The three measures of central tendency are almost the same; the mean is 7.2 years of education while the median is 7.5 years and the mode is 8 years. When the frequencies are computed by each year of school completed, the distribution is almost bimodal; eight respondents reported having completed six years and nine reported having completed eight years. The following table does not indicate the bimodal distribution as the data are grouped.

TABLE 3

#### DISTRIBUTION OF SOLID WASTE EMPLOYEES BY EDUCATIONAL ATTAINMENT

Years of School Completed	Frequency	Per Cent
1-4	7	15.6
5-8	24	53.3
9-11	10	22.2
12 or more	4	8.9
	N = 45	100.0

### Marital Status and Other Related Family Factors

Twenty-seven of the 45 subjects are married; six of those 27 have no children. The 21 fathers have 79 children or 3.8 children each. The number of children reported by the fathers ranged from one to ten. The median number of children is three and the mode is two children. Nine of the 27 wives work outside the home. Their jobs range from telephone operator to presser in a laundry to part-time house cleaner. One wife works as a cleaning lady at a university and two are employed as aides at the Denton State School.

### Education of Fathers of Respondents

When the respondents were asked about the educational attainment of their fathers, 13 of the 45 were unable to say how much education their fathers had received. Of the 32 who had knowledge of their fathers' educational attainment, the reported education ranged from nine fathers who had never been to school to two fathers who were reported to have college educations. The mean and the median number of years of education reported for the fathers is five years but the mode is no education at all.

### Intergenerational Occupational Mobility

The majority of the solid waste employees were born to families of unskilled laborers and have remained there.

The occupations of the fathers were classified as unskilled, semi-skilled, skilled, or non-manual. The table below represents the distribution of the fathers' major occupations at the four levels.

TABLE 4  
DISTRIBUTION OF OCCUPATIONAL ATTAINMENT OF  
FATHERS OF SOLID WASTE EMPLOYEES

Occupational Level	Frequency	Per Cent
Unskilled	29	64.5
Semi-skilled	8	17.8
Skilled	5	11.1
Non-manual	1	2.2
Unknown	2	4.4
	N = 45	100.0

The one respondent whose father's occupation is classified as non-manual was a high school dropout who left the solid waste department soon after the first interview was conducted. Both of his parents are commercial artists.

Sixty-four per cent of the solid waste collectors may be considered to be horizontally mobile and only 35.6 per cent are downwardly mobile. The majority of the downwardly mobile subjects have not dropped drastically; the skilled occupations of the fathers were electrician, plumber,

carpenter, brick-layer, and similar manual labor categories. Two or three of the subjects who were considered horizontally mobile are not mobile at all; their fathers work now or did work for the solid waste department but they were classified with the horizontally mobile subjects.

### Stability in Employment

Stability in employment is considered by two different measures; first, the length of time employed in the solid waste department or seniority, and second, the number of different jobs held during the past five years.

### Seniority

The length of time employed in the solid waste department ranges from three weeks to 12 years. Sixteen of the subjects have worked for the department for less than one year; twelve have worked from one year through three years; another eight have been employed in the department for between three years and five years. Another nine have been there for more than five years. The median number of years employed in the solid waste department is two years and appears to be the most accurate measure of central tendency to describe stability in employment. However, fifteen of the respondents have worked there five years or longer and it may be that the mode of five years is a better descriptive

measure of central tendency. The distribution of the frequency and percentage of workers by the number of years they have been employed in the solid waste department is illustrated in Table 5.

TABLE 5  
DISTRIBUTION OF SOLID WASTE  
EMPLOYEES BY SENIORITY

Number of Years	Frequency	Per Cent
Less than 1 year	16	35.7
1-2	9	20.0
3-4	4	8.6
5 or more	16	35.7
	N = 45	100.0

Taylor offers the conclusion that from research evidence of how often the total working force changes jobs, the average worker "probably changes his job once every 3 to 5 years."<sup>1</sup> Based on Taylor's conclusion, one may extend that statement to indicate that those solid waste employees who have worked at the same job for four years or more to be more stable than the average American worker. That interpretation

<sup>1</sup>Lee Taylor, Occupational Sociology (New York: Oxford University Press, 1968), 75.

of stability would indicate that 35.7 per cent of the population investigated are very stable, as they have been working in the solid waste department for five years or longer. If one considers three years stability, then 20 or 44.3 per cent of those workers may be classified as stable. The number of years employed skips from 3 years, 5 months to five years; none reported four years.

In controlling for positions of the worker, it becomes apparent that there is an association between the position and seniority. Table 6 indicates that information.

TABLE 6  
DISTRIBUTION OF SENIORITY AMONG SOLID  
WASTE EMPLOYEES BY POSITION

Seniority	Position			
	Driver		Collector	
	Frequency	Per Cent	Frequency	Per Cent
Less than 1 year	2	13.3	14	46.7
1-2 years	0	0.0	9	30.0
3-4 years	3	20.0	1	3.3
5 years or more	10	66.7	6	20.0
	N = 15	100.0	N = 30	100.0

Of the sixteen men who have been employed in the solid waste department for five years or longer, 62.5 per cent

are drivers. Of those twenty who have been in the department for three or more years, 65 per cent are drivers and 35 per cent are collectors.

Controlling for position, central tendency of seniority is as follows:

	<u>Driver</u>	<u>Collector</u>
Mean	4 yrs., 4½ mos.	2 yrs., 2½ mos.
Median	5 or 5+	1 yr., 6 mos.
Mode	5 or 5+	less than 1 yr.

It is obvious that the mean time worked by collectors is greatly influenced by the one man who has worked for twelve years, one who has worked seven years and four who have worked for five years. The median appears to describe the average seniority of both drivers and collectors more accurately than does the mean.

#### Number of Jobs Held

Sixteen of the subjects reported that the present job is the only job that they have held during the past five years. Another fourteen have held two or three different jobs during that period of time and twelve reported having held four or five different jobs. Two respondents estimated that they have held as many as ten different jobs during the

past five years. The table below illustrates stability in employment for the past five years for the forty-five subjects.

TABLE 7  
DISTRIBUTION OF STABILITY IN EMPLOYMENT  
BY THE NUMBER OF JOBS HELD DURING  
THE PAST FIVE YEARS

Stability (No. of Jobs)	Frequency	Per Cent
1	16	35.7
2	8	17.8
3	6	13.3
4	4	8.9
5	6	13.3
6	2	4.4
10	2	4.4
Unknown	1	2.2
	N = 45	100.0

Taylor's conclusions about frequency of changing jobs could again be applied to stability as measured in number of jobs held during the past five years. His statement, ". . .the typical American worker probably changes his job once in every 3 to 5 years,"<sup>1</sup> may be applied to the table

<sup>1</sup>Ibid., 75.

above. The workers who reported having held two different jobs during the past five years have changed jobs once during the past five years. Using that criterion, it may be concluded that 24 or 53.4 per cent of the solid waste workers do not change jobs any more often than Taylor expects the average American worker to change. He further states that

Job mobility is not evenly distributed throughout the several occupations. In some occupations mobility is far more frequent than in others. . . .At the lower end of the occupational continuum there is a greater frequency of job changing.<sup>1</sup>

Obviously if the number of jobs held the past five years were considered by position of driver or collector, one would find the drivers to be more stable in that sense as well as in the sense of seniority. It appears that it may be concluded that the majority of solid waste workers, who are at the bottom of the occupational scale when prestige is considered, are fairly stable or similar to the average American worker as defined by Taylor.

#### Satisfaction Expressed Relative to Particular Characteristics of the Job

In the following section the responses to those questions which were entitled "Satisfaction with Work Characteristics" are discussed. Fifteen of the eighteen questions

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<sup>1</sup>Ibid., 76.

were considered to be related to characteristics of the job of solid waste collector and were classified into one of five categories:

Class I - the actual process of doing the work

Class II - relationships with the public

Class III - relationships with superiors

Class IV - relationships with peer group

Class V - results of the work.

Each class of questions and responses will be considered separately in the following manner. The questions which are classified within each topic are listed as they were presented to the subjects. Next comes the table which presents the frequency and percentage distribution of level of satisfaction expressed with each characteristic. Follow the presentation of the table, each of the questions is discussed relevant to the possible reasons for each level of satisfaction.

#### Class I, The Actual Process of Doing the Work

The questions classified in Class I.--The following four questions appeared to be appropriately classified as the actual process of doing the work.

Question 1: How satisfied are you with your hours--that is, the time that you come to work in the morning and the time that you get off in the afternoon? How satisfactory is that schedule to you?

- Question 3: How much does it bother you working outside in all kinds of weather?
- Question 7: Do you think you will like your job better when all garbage is set on the curb in bags?
- Question 13: How much does getting dirty while you are working bother you?

The table below reflects the frequency and percentage of the levels of satisfaction expressed by those who answered these questions. The frequency and percentage of those who could not answer each of the questions is also given.

Explanation of "no response."--Question number seven was labeled "no response" for seven of the subjects. It is recalled that the question is related to the change to the bag system. Many of the subjects would not be directly affected by the change; some of them gave a positive response in that they would like to see their friends' jobs made easier. The seven who did not answer fell into the category of those who would not be directly affected and answered that the question did not apply to them. This fact accounts for the "no response" for those seven men. The lack of response to the other questions indicates that those respondents were unable to evaluate their feelings about the questions asked.

Levels of satisfaction.--Question number three received the greatest expression of high satisfaction. While some people prefer to work inside and enjoy protection from

TABLE 8

DISTRIBUTION BY LEVEL OF SATISFACTION EXPRESSED IN RESPONSE  
TO EACH OF THE QUESTIONS

Level of Satisfaction	Question Number							
	1		3		7		13	
	Frequency	Per Cent	Frequency	Per Cent	Frequency	Per Cent	Frequency	Per Cent
High	16	35.6	39	86.7	30	66.6	33	73.3
Medium	26	57.8	3	6.7	3	6.7	8	17.9
Low	2	4.4	2	4.4	5	11.1	2	4.4
No Response	1	2.2	1	2.2	7	15.6	2	4.4
Totals	45	100.0	45	100.0	45	100.0	45	100.0

the weather, the majority of the men interviewed indicated that the weather does not bother them. The question was not stated in such way that it can be concluded that they enjoy working in the rain, hot sun, or cold, but rather, they were asked how much the weather bothered them. The better interpretation of the finding may be that there is an absence of dissatisfaction, rather than the presence of satisfaction.

The question which asks how much getting dirty bothers them is one which is stated in such way that would be more properly classified as indicating a lack of dissatisfaction rather than satisfaction as it has been classified. Thirty-three or 73.3 per cent indicated that getting dirty while they are working does not bother them. Some subjects answered, "It's just a part of it," or, "You get used to it." Those who were classified as having medium or low satisfaction responded by statements such as, "Well, I don't like grease spilling on my back when I pick up a can with a hole in it," or, "some people punch holes in the cans to let the water run out and when it rains and the garbage is wet, dirty water runs out on me and I don't like that."

In consideration of the responses to question one, the majority expressed medium satisfaction with their working hours, rather than high satisfaction. This is an interesting result in the light of the fact that in answering the

open-ended questions about what the respondents like most about their jobs, twenty of the thirty-eight who were able to give a characteristic that they liked most, referred to the hours worked. Another five named hours as the characteristic that they disliked most. However, it is recalled that many who named the hours worked, sometimes added that they did not like getting up so early but they liked getting off early in the afternoon. That may be an indication that working hours receiving medium satisfaction is very accurate in the way the men feel about the hours. The majority of the men were reporting to work at 6:00 A.M. and were allowed to leave when the task was finished. The task assigned to each work group was considered to be worth eight hours. Sometimes the time required was more than eight hours, in which case they were paid for the extra hours. At other times some routes could be finished on some days in as little as four or five hours. The time to be spent each day was unpredictable except that it was often expressed that Mondays and Tuesdays were the worst days.

Other variations of work hours were that one route near North Texas State University required beginning earlier than 6:00 A.M. in order to finish before the heavy traffic began in that area. One commercial route began at about 10:00 A.M. Another route began at 4:00 P.M. or 5:00 P.M. at

the discretion of the driver. He picked up at service stations and other such businesses which use heavy steel barrels for the solid waste and both driver and helper are needed to lift one barrel and empty it. That driver accounts for one of the two who expressed low satisfaction with working hours. His wife had been working at night when he began that routine but she has gained enough seniority to have consistent day work now but he still works at night. That fact accounts for his unhappiness with the hours.

### Class II, Relationships with the Public

The questions classified in Class II.--There were three questions which were classified as relationships with the public and they are as follows.

- Question 5: How much do you think the people on your route appreciate what you are doing for them when you remove their garbage and trash?
- Question 6: How much does it bother you when people call in and say that you have not picked up their garbage or trash?
- Question 12: Do any of the people on your route ever thank you for what you are doing?

The table below indicates the number of men and percentage who indicated high, medium, or low satisfaction with each of those questions which are classified as their relationships to the public.

TABLE 9

DISTRIBUTION BY LEVEL OF SATISFACTION EXPRESSED  
IN RESPONSE TO EACH OF THE QUESTIONS  
RELATED TO THE PUBLIC

Level of Satisfac- tion	Question Number					
	5		6		12	
	Number	Per Cent	Number	Per Cent	Number	Per Cent
High	11	24.4	16	35.5	26	57.8
Medium	22	48.9	14	31.1	10	22.2
Low	4	8.9	7	15.6	5	11.1
No Response	8	17.8	8	17.8	4	8.9
Totals	45	100.0	45	100.0	45	100.0

Explanation of "No Response."--Those questions which required the respondents to speculate about the attitudes or feelings of people other than themselves often presented problems to the respondents. Question five often received the response, "Well, I don't know; I think they ought to but I couldn't say." The investigator encouraged the respondent to estimate how he thought the public felt and in many cases the subject would arrive at an answer which could be recorded. Eight of the subjects could not give an answer to that question.

To the question asking about how much the men were bothered when complaints were made, similar problems developed in that the investigator did not know how to score

the answers received. Some of the subjects answered very quickly that they were not bothered, while others said that it did bother them. Still others explained that it depended upon the truth of the matter. That particular question was among those that gave particular difficulty in coming to a decision in terms of what score to assign to the subjects' answers. When the content of the response could not be classified, it was called "no response," even though there had been some type of response.

Question twelve was a very direct question and the subjects could very readily relate experiences in which residents had thanked them; the problem in scoring was to determine how often they felt they were thanked. The four who are classified as "no response" are considered to be those who never see their customers because of the hours of the pickups. It did not appear proper to score the response as "never" under the circumstances.

Levels of Satisfaction.--Again the situation of classifying the responses as satisfaction is questionable but was considered as the best possible alternative. It was thought that if the workers are thanked frequently by the residents whom they serve, it would contribute to their satisfaction; if they perceived the residents as appreciating their services, it should contribute to their satisfaction. The question of whether or not the respondents were bothered

with complaints had been considered to be an indication of satisfaction if they were not bothered. The responses that they were bothered if they had done the work well and complaints came in was not anticipated. If they had actually missed solid waste that was set out and should have been picked up, they were not bothered by knowing that they had not done the job well. That type of response was classified as satisfaction, unless the respondent indicated that he received a great many complaints. Satisfaction was also considered high if the respondent reported that he had had no complaints about his job. Again that question may be construed to indicate lack of dissatisfaction rather than satisfaction but was not scored in such fashion. Rather the responses were scored by amount of satisfaction indicated by the manner in which the respondent answered the question.

Actually the three questions are not comparable but question twelve received the highest proportion of high satisfaction. If they reported that any of the residents thanked them regularly and they expressed appreciation for the thanks, they were marked as being very satisfied.

Question six received the next most frequent high satisfaction but the problems encountered in classifying the answers have already been explained. The greatest contribution of that question is the insight into the thinking of the subjects. Those who expressed the idea that they were

bothered when they were accused wrongly but not bothered if they had failed to perform their jobs well contributes to the attitudes toward their work and may indicate that they prefer to do it well and if an error has been committed, they do not mind correcting it. Somehow, it does appear that at other levels of work, employees would be more bothered if it were discovered that they had committed errors, than the solid waste workers indicate. That fact could indicate a difference in the attitude toward responsibility but no conclusions are drawn in the present research. Further research which includes other levels of occupations would be required before conclusions could be drawn about differences in attitudes.

In evaluation of the quality of responses and the expressions of the subjects, one could conclude that having a small number of residents who expressed appreciation appeared to bring about a positive feeling toward the job.

### Class III, Relationships with Superiors

Three questions were considered to be properly classified as "relationships with superiors." They are as follows.

Question 8: Do you feel that your supervisor would like for you to make suggestions of ways to improve your job?

Question 11: Does anyone in the Sanitation Department ever tell you that you are doing a good job?

Question 18: How sure are you that you can keep your job for as long as you want to?

These questions cannot be classified by level of satisfaction. It has been discussed earlier that the interpretations of satisfaction related to certain questions are not entirely satisfactory to the investigator but appear to be the best available alternative. Those questions were designed to be marked by level of satisfaction. The questions within this category III, however, were scored differently and are presented separately by the scores which were designed with the questions. The results are reported below for each of the three questions and a discussion of the results follows each.

TABLE 10

DISTRIBUTION OF RESPONSES TO  
QUESTION EIGHT

Response	Frequency	Per Cent
Yes	26	57.8
No	5	11.1
Don't Know	9	20.0
No Response	5	11.1
Totals	45	100.0

A small majority of the respondents said that they felt the supervisor would like for the workers to make

suggestions for ways to improve the job. Eleven per cent indicated a very strong "No" but the interpretation given by the respondents when they were asked why they thought the supervisor would not like suggestions was very enlightening. The usual response was that the supervisor knows best. "That's why he is where he is." They viewed the role of supervisor and laborer as definitely separated in role and responsibility.

Another twenty per cent indicated that they did not know whether or not suggestions would be welcomed and some of the respondents in that category gave the reason for their indecision in similar terms to the ones who responded "no."

Still another eleven per cent indicated that they could not say what they thought. That response was interpreted to mean that they had not considered the question before and appeared puzzled that they should be asked such question. It may be that about 31 per cent of the respondents saw the roles of supervisor and worker as clear-cut, carrying different responsibilities which did not overlap.

TABLE 11

DISTRIBUTION OF RESPONSES TO  
QUESTION ELEVEN

Response	Frequency	Per Cent
Often	8	17.8
Sometimes	21	46.7
Almost Never	2	4.4
Never	11	24.4
No Response	3	6.7
Totals	45	100.0

Very few of the respondents said that they are told often that they are doing a good job but 46.7 per cent or almost one half said that they have been rewarded in such manner at more than a few times. Others who reported that they had never been told that they were doing a good job, explained that they had had no complaints and therefore, concluded that their work was satisfactory. Others who had not been personally commended felt that they had been praised when their work group was commended. It was observed that some of the workers go in the supervisor's office and sit to talk; others walk through the hallway when they have finished and do not report to the office. One of the crew reports for the three- or four-man team that the task is finished. Those who do not stop by the office after work give no

opportunity for comments on their performances; nevertheless, it is apparent that there is an awareness that such reward is needed and is given to many of the men by someone at some points in time. Those who reported that they were told often or sometimes that they are doing a good job appeared pleased to answer accordingly.

TABLE 12  
DISTRIBUTION OF RESPONSES TO  
QUESTION EIGHTEEN

Response	Frequency	Per Cent
Very Sure	12	26.7
Sure	19	42.2
Not so Sure	8	17.8
Not Sure at All	5	11.1
No Response	1	2.2
Totals	45	100.0

Provided with the knowledge that it was very difficult to keep a full work force, the responses to question eighteen were surprising. Even though twelve of the respondents were considered "very sure," of their job security, it was not with the assurity that was expected. That question appeared to bring about more anxiety in the respondents than any other question. Those who arrived at an answer such as

"fairly sure" or "pretty sure" were called "very sure" but repeatedly when the reasons for the answers were probed, the attitude appeared to be that "the boss" had the right to fire whomever he chose to fire at anytime. There was no anger or sense of injustice expressed. The respondents accepted that possibility as just. Their explanations and responses did not include the reasoning that there was any relationship between doing a good job and keeping their jobs. The majority based their answers on the probability that someone would or would not fire them.

#### Class IV, Relationships with Peer Group

There is only one question which may reflect peer group relationships, question number two.

"How satisfied are you with the  
people with whom you work?"

That question was answered easily and very readily by respondents, which may be an indication that it is something that had been considered prior to the interview.

It is believed that a very large majority of the men in the solid waste department are satisfied with their work groups. In all of the many informal conversations with both collectors and drivers, at no time was any gripe expressed toward a co-worker. One informant, an administrator, said that there is one commercial driver who has difficulty in

keeping a helper. He is very difficult to get along with and the chief complaint against him is that he wants to do all the work himself and does not trust his helper to do his own work. That driver's helper (who was new at the time to that route) did not complain about him and when he was directly asked about it, he did not say that he liked the man but said that he did not mind working with him.

TABLE 13  
DISTRIBUTION OF RESPONSES TO  
QUESTION TWO

Response	Frequency	Per Cent
Very Satisfied	12	26.7
Satisfied	32	71.1
Not so Satisfied	0	0.0
Not Satisfied	0	0.0
No Response	1	2.2
Totals	45	100.0

The fact that most of the men indicated "satisfied," rather than "very satisfied," may or may not have any special meaning. Throughout the interviewing it was noticed that few of the men gave enthusiastic answers and used few adjectives that would be classified as superlative. It may be an indication that they have moderate feelings in general or it may be that there is a cultural bias toward expressing

themselves with great enthusiasm. Congenial relationships were observed among those workers who sat and visited with each other either before or after their work days. Cliques did appear to exist and revolved around work groups, usually. There were some men who were considered to be isolates by the office personnel and it was predicted (by office personnel) that two brothers and a cousin would not cooperate with the interviewer. Usually they worked together and left together; when they were approached about the interview, they cooperated. Two did so immediately and the third man asked to be interviewed at a later time. When he was asked again, he reluctantly sat down but cooperated with the interviewer during both the first and the second interview.

#### Class V, Results of the Work

Classified under this category are questions related to rewards of the job, in the form of pay, together with the effects of manual labor on feeling tired and the effects of the expenditure of energy on the activities after the work day.

Question 14: How often do you get so tired that you would like to quit your job?

Question 15: How often do you get so tired that you stay tired for the rest of the day?

Question 16: How often do you get so tired at work that you don't feel like doing things that you want to do when you're not at work?

Question 17: Considering the things about your job that are important to you, just how satisfied do you think you are with your job?

Questions 14, 15, and 16 are related to getting tired and the results of the frequencies and percentages of answers are presented in Table 15. Question 17 is considered alone in Table 14, as the answer categories do not correlate with the answers to the first three questions.

TABLE 14  
DISTRIBUTION OF RESPONSES TO  
QUESTION SEVENTEEN

Response	Frequency	Per Cent
Very Satisfied	11	24.4
Satisfied	27	60.0
Not So Satisfied	5	11.1
Not Satisfied	1	2.2
No Response	1	2.2
Totals	45	100.0

TABLE 15

DISTRIBUTION BY LEVEL OF SATISFACTION EXPRESSED IN  
RESPONSE TO EACH OF QUESTIONS 14, 15, AND 16

Level of Satisfaction	Question Number					
	14		15		16	
	Fre- quency	Per Cent	Fre- quency	Per Cent	Fre- quency	Per Cent
High	18	49	16	42	15	40
Medium	7	19	8	22	8	22
Low	3	8	2	6	3	8
No Response	9	24	11	30	11	30
Totals	37	100	37	100	37	100

As observed earlier the respondents seldom speak enthusiastically about anything, but the sixty per cent who indicated that they were satisfied with the job may be considered an accurate description of their satisfaction. The job satisfaction scores, as will be discussed later, indicate that overall job satisfaction may be classified as "satisfied" and would not indicate "very satisfied," when a measure of central tendency is considered. However, eleven or 24.4 per cent did express their responses in the category of "very satisfied." Evidence for their satisfaction is supported elsewhere when some respondents say that the job of solid waste collector is the best job ever held. The one respondent who reported that he was not satisfied was a very young man, brother to two other workers whose attitudes were

totally different. He resented the work and the supervisor; he only works because his father forces him to do so. At no time during the observation of the workers did that respondent give any indication of feeling otherwise about the job. During the last interview he predicted that he would be fired very soon; the reason he gave was that he did not like the supervisor and the supervisor did not like him.

### Social-Psychological Factors

#### Introduction

Two measures which may be considered social-psychological in nature were administered to the respondents. Milton Blood's general work values were considered as it was felt that knowing about the work values of the population which was investigated could add to the understanding of how they responded to various questions associated with work. Blood developed eight items which were meant to reflect general work values. He came to the decision that four of the eight items were pro-Protestant Ethic items, while the remaining four were non-Protestant Ethic items. He labeled them non-Protestant Ethic to indicate what they were not but he clearly stated that he could not say what they represented. In the scoring system which was developed, the pro-Protestant Ethic items were called Dimension I and the non-Protestant

Ethic items were called Dimension II.<sup>1</sup> Separate scores were reported for Dimension I and for Dimension II. Items 2, 4, 6, and 7 are included in Dimension I while the remaining items 1, 3, 5, and 8 are included in Dimension II. Although all eight items were administered to the respondents in the present research and both Dimension I and Dimension II are reported, only Dimension I is considered appropriate in testing the hypothesis related to Weber's Protestant Ethic and job satisfaction.

Srole's anomia items composed the second measure which was administered to the respondents.<sup>2</sup> Previous research has indicated that anomia is inversely related to social class.<sup>3</sup> There has been criticism of Srole's items, particularly in the area of encouraging acquiescence among subjects who are subordinate in social class to the investigator.<sup>4</sup> Even so,

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<sup>1</sup>Milton Blood, "Work Values and Job Satisfaction," Journal of Applied Psychology, 53 (December, 1969), 456.

<sup>2</sup>Leo Srole, "Social Interaction and Certain Corollaries: An Exploratory Study," American Sociological Review, 30 (October, 1956), 709-716.

<sup>3</sup>Richard L. Simpson and H. Max Miller, "Social Status and Anomie," Social Problems, 10 (Winter, 1963), 256-264; Wendell Bell, "Anomie, Social Isolation, and the Class Structure," Sociometry, 20 (June, 1957), 105-116; Dorothy L. Meier and Wendell Bell, "Anomie and Differential Access to the Achievement of Life Goals," American Sociological Review, 24 (April, 1959), 189-202.

<sup>4</sup>Leslie G. Carr, "The Srole Items and Acquiescence," American Sociological Review, 36 (April, 1971), 287-293.

the items were administered for several reasons. One reason was to investigate whether or not there is any association between anomia and job satisfaction. If anomia is inversely related to social class and if job satisfaction is positively related to occupational level, then there may be a relationship between job satisfaction and anomia. Other reasons for using the anomia items were:

1. To determine what proportion of the solid waste collectors scored at each level of anomia and how those proportions compared to Srole's 1950 sample;
2. To know if most of the subjects scored high on anomia as one would predict from Merton's hypothesis that anomia is related to position in the social structure of the community;
3. To try to determine what variables appear to be associated with low anomia scores, if any occurred. Within one particular occupation, which is considered at the bottom of the social structure, differences in scores which occur within one position in the community social structure could be helpful in explaining anomia at a level other than the position within the community social structure;
4. To gain some idea whether or not it is believed that acquiescence is influencing the results of the study.

The results of the findings related to the anomia items are reported in the section following the discussion of the Protestant Ethic items.

The Protestant Ethic Work Values

The frequencies and percentages of workers who accepted or rejected each of the four items in Dimension I of Blood's work values are given for the entire group of respondents for which the information is available.

Item 6 represents the greatest acceptance by the respondents. None disagreed but one man gave no response.

Item 6: A good sign of a man's worth is how well he does his job.

It is recalled that in response to a question in the SWC, respondents often expressed the idea that they were not bothered by complaints of residents if the complaints were justified. What bothered them was being accused of not doing their work well when they actually had done it well.

Item 4 received affirmative answers from 29 men or 80.6 per cent of the respondents.

Item 4: Wasting time is as bad as wasting money.

Another seven or 19.4 per cent disagreed with the statement. However, it is recalled that item 4 was one of the items over which most of the respondents hesitated and appeared to consider carefully before answering. Money could be considered the most serious problem for some of the respondents. "Wasting money" could bring problems to the workers and their families. Their incomes indicate that

TABLE 16

DISTRIBUTION OF RESPONSES BY ITEM IN DIMENSION I  
(Pro-Protestant Ethic)

Item	Agree		Disagree		No Response		Total	
	Frequency	Per Cent	Frequency	Per Cent	Frequency	Per Cent	Frequency	Per Cent
2	25	69.4	11	30.6	0	0.0	36	100.0
4	29	80.6	7	19.4	0	0.0	36	100.0
6	35	97.2	0	0.0	1	2.8	36	100.0
7	26	72.2	10	27.8	0	0.0	36	100.0

there is little margin for waste, if they are to provide for their families. Although the present research did not provide for asking the men to define "wasting money" and "wasting time," the recommendation is made that future research which includes that item should ask for examples or definitions.

Item 7 received agreement from 26 or 72.2 per cent of the workers and disagreement from 10 or 27.8 per cent.

Item 7: If all other things are equal, it is better to have a job with a lot of responsibility than one with little responsibility.

Many of the men asked the meaning of the item. The investigator gave the explanation that it meant that the work itself would be the same, the hours and pay the same, but they would be held responsible for seeing that more than their own work was properly done. This explanation was considered by the investigator to be very narrow, but one which the respondents could understand.

Item 2: Hard work makes a man a better person.

This was the item which received the least agreement but even then a majority, 25 or 69.4 per cent agreed with the item. Some of the respondents interpreted the item to refer to physical strength or development rather than moral attributes. That interpretation was discovered when one respondent who spoke both English and Spanish was used as an interpreter for those who spoke and understood little English. The

TABLE 17

DISTRIBUTION OF AGREEMENT AND DISAGREEMENT ON PRO-PROTESTANT  
ETHIC ITEMS BY ETHNIC GROUP

Item	Ethnic Group											
	Mexican-American N = 14						Anglo-American N = 22					
	Response Category						Response Category					
	Agree		Disagree		No Answer		Agree		Disagree		No Answer	
	Num- ber	Per Cent	Num- ber	Per Cent	Num- ber	Per Cent	Num- ber	Per Cent	Num- ber	Per Cent	Num- ber	Per Cent
2	9	64.3	5	35.7	0	0.0	16	72.8	6	27.2	0	0.0
4	13	92.9	1	7.1	0	0.0	16	72.8	6	27.2	0	0.0
6	14	100.0	0	0.0	0	0.0	21	95.5	0	0.0	1	4.5
7	11	78.6	3	21.4	0	0.0	15	68.2	7	31.8	0	0.0

investigator understood enough Spanish to detect the explanation given but the interpreter was not corrected. It may be that both the Spanish-speaking and the English-speaking men interpreted the statement in the same way. An analysis by ethnic classification reveals that 64.3 per cent of the Mexican-Americans agreed with the statement while 72.8 per cent of the Anglo-Americans agreed with it. Item 2 is the only item in which a larger percentage of the Anglo-Americans agreed than did Mexican-Americans as the table indicates.

The Protestant Ethic work value items indicate that there is a strong acceptance of the work values associated with Weber's Protestant Ethic. Almost 36 per cent of the respondents indicated that they accepted all of the Protestant Ethic work values while another 30 per cent accepted all but one of the four values offered. Twenty per cent did not answer the work value statements; those were nine of the forty-five who were not asked to participate because it was thought that they did not understand previous questions well enough. To have administered the items, it was believed, would have been to invite unreliable responses.

If only those who answered the items pertaining to work values are considered, the proportions for each score are as follows.

TABLE 18

DISTRIBUTION OF SCORES ON PROTESTANT  
ETHIC WORK VALUES

Score	Frequency	Per Cent
0	0	0.0
1	2	5.8
2	5	13.7
3	13	36.1
4	16	44.4
Totals	36	100.0

It becomes apparent that within the Pro-Protestant Ethic items the Mexican-Americans agree more often than the Anglo-Americans with every item other than item 2. In the non-Protestant Ethic items the Anglo-Americans agree more often than the Mexican-Americans with every item but item 8. Item 8 states, "People who do things the easy way are the smart ones." The remaining non-Protestant Ethic items are as follows.

1. When the work day is finished, a person should forget his job and enjoy himself.
3. The principal purpose of a man's job is to provide him with the means for enjoying his free time.
5. Whenever possible a person should relax and accept life as it is, rather than striving for unreachable goals.

TABLE 19

DISTRIBUTION OF AGREEMENT AND DISAGREEMENT TO NON-PROTESTANT  
ETHIC ITEMS BY ETHNIC GROUP

Item	Ethnic Group											
	Mexican-American N = 14						Anglo-American N = 22					
	Response Category						Response Category					
	Agree		Disagree		No Answer		Agree		Disagree		No Answer	
Num- ber	Per Cent	Num- ber	Per Cent	Num- ber	Per Cent	Num- ber	Per Cent	Num- ber	Per Cent	Num- ber	Per Cent	
1	11	78.6	3	21.4	0	0.0	20	90.9	2	9.1	0	0.0
3	9	64.3	4	19.5	1	7.1	17	77.3	5	22.7	0	0.0
5	8	57.2	5	35.7	1	7.1	17	77.3	5	22.7	0	0.0
8	8	57.2	5	35.7	1	7.1	12	54.5	10	45.5	0	0.0

Srole's Anomia Items

The anomia items were administered during the first interviews. Of the 45 in the total number of laborers who were interviewed at least once, 38 responded to the anomia items. The table below lists the number of each item along with Srole's interpretation of the meaning of agreement with each item. The frequencies and percentages of agreement, disagreement, or no answer are given.

Inspection of responses to the anomia items gave the impression that there was a difference by ethnic group in the frequencies of agreement. An analysis of the frequencies of acceptance or rejection of each item is given in Table 21.

Srole's 1950 study which he reported in 1965 indicates that he scored the five items in the same manner as has been done in the present investigation. The respondent either agreed or disagreed with the item and agreement was assigned one point and disagreement a zero. The respondents in Srole's study were all white, Christian, native born, transit riders of Springfield, Massachusetts. The following table indicates the percentage of the 401 respondents in Srole's study who scored at each level, along with the percentage of the respondents in the solid waste department who scored at each level.<sup>1</sup>

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<sup>1</sup>Leo Srole, "Social Integration and Certain Corollaries: An Exploratory Study." American Sociological Review, 21 (December, 1956), 714.

TABLE 20

## DISTRIBUTION OF RESPONSES TO EACH OF SROLE'S ANOMIA ITEMS

Item and Srole's Interpretation	Response Category							
	Agree		Disagree		No Answer		Totals	
	Fre- quency	Per Cent	Fre- quency	Per Cent	Fre- quency	Per Cent	Fre- quency	Per Cent
1 Sees community leaders as detached and indifferent to their needs	18	47.4	14	36.8	6	15.8	38	100.0
2 Social Order Unpredictable	26	68.4	12	31.6	0	0.0	38	100.0
3 He and others like him retrogressing from goals already achieved	31	81.6	7	18.4	0	0.0	38	100.0
4 Deflation or loss of internalized social norms and values	24	63.2	12	31.6	2	5.2	38	100.0
5 His immediate per- sonal relationships no longer predictable	30	79.0	8	21.0	0	0.0	38	100.0

TABLE 21

## DISTRIBUTION OF RESPONSES TO ANOMIA ITEMS BY ETHNIC GROUP

Item	Ethnic Group											
	Mexican-American N = 13						Anglo-American N = 25					
	Response Category						Response Category					
	Agree		Disagree		No Answer		Agree		Disagree		No Answer	
Num-ber	Per Cent	Num-ber	Per Cent	Num-ber	Per Cent	Num-ber	Per Cent	Num-ber	Per Cent	Num-ber	Per Cent	
1	6	46.2	4	30.8	3	23.1	12	48.0	10	40.0	3	12.0
2	8	61.5	5	38.5	0	0.0	18	72.0	7	28.0	0	0.0
3	11	84.6	2	15.4	0	0.0	20	80.0	5	20.0	0	0.0
4	7	53.8	6	46.2	0	0.0	17	68.0	6	24.0	2	8.0
5	9	69.2	4	30.8	0	0.0	21	84.0	4	16.0	0	0.0

TABLE 22

DISTRIBUTION OF ANOMIA SCORES IN SROLE'S  
SAMPLE COMPARED TO SCORES OF  
SOLID WASTE EMPLOYEES

Score	Srole's Sample Per Cent	Solid Waste Respondents Per Cent
0	16.0	5.5
1	25.0	2.8
2	20.0	11.1
3	21.0	30.6
4	13.0	36.0
5	5.0	14.0
Totals	100.0	100.0

Srole's sample included people from low, medium, and high social status. He does not report his findings by social status. The majority of the solid waste respondents scored either 3 or 4, while Srole's sample had a wider spread of scores. Two-thirds, 66.6 per cent of the subjects in the present study, are concentrated at the levels of 3 and 4 while 66 per cent of Srole's sample are spread from scores of 1, 2, or 3.

The smallest difference of 8.9 per cent between percentages at each score level occurs at the score of 2. The largest difference occurs at the score of 4, which is the most frequent score among the solid waste workers; 36 per cent

TABLE 23  
 KNOWN CHARACTERISTICS OF SEVEN SUBJECTS WHO SCORED FROM ZERO TO TWO ON SROLE'S ANOMIA ITEMS

Subject Number	Anomia Score	Protestant Ethic Work Values Score	Age	Ethnicity	Educational Attainment	Seniority	Number Friends	Friends in Solid Waste Department	Friends Outside Solid Waste Department	Married	Position	Reward-Investment Score	Job Satisfaction Scores	
													Time I	Time II
20	3	2	18	Anglo	9	7 mos.	2	1	1	No	Collector	60	62	62
27	1	4	58	Anglo	2	5 yrs.	1	1	0	Yes	Collector	70	44	56
37	2	4	52	Spanish	6	7 yrs.	0	0	0	Yes	Collector	95	--	58
18	0	4	34	Spanish	8	5 yrs.	2	1	1	Yes	Driver	130	66	63
17	2	4	37	Spanish	4	3 yrs.	3	3	0	No	Driver	85	70	65
29	0	--	24	Anglo	11	6 mos.	2	0	2	Yes	Driver	105	66	--
22	2	3	21	Anglo	10	2 mos.	3	1	2	No	Collector	60	52	55

of the solid waste workers scored 4 while only 13 per cent of Srole's sample scored 4, a difference of 23 per cent. The second largest difference in percentages between the two samples is found in the score at which 25 per cent of Srole's sample were located; the difference is 22.2 per cent.

Compared to Srole's sample, the solid waste respondents scored high on the anomia items.

Is there any apparent difference between those solid waste employees who scored 0, 1, or 2 and those who scored 3, 4, or 5 on Srole's anomia scale? Each respondent who is considered deviant is listed by his identification number along with all information available in order to determine if they have any factor in common or differ greatly from the other respondents on any factor or factors.

Inspection of the characteristics of the seven deviant cases does not indicate any clue that may help explain their low anomia scores.

### Job Satisfaction

The mean and median job satisfaction scores of the solid waste collectors were very similar both before and after the working conditions were changed. The median score on the Job Satisfaction Index, which could range from 18 to 90, was 63 and the mean was 62.06 at Time I. At Time II the median was 63 and the mean was 61.8. Although the authors

of the index indicate that the score of 54 is considered a neutral point, and any score below 54 is dissatisfaction, only four subjects fell on or below the neutral point at either time. In order to judge the relative satisfaction of the solid waste employees compared to other levels of employees, a search was made to find other studies which had used the Brayfield-Rothe Index. Information was given for three different groups of workers, which afforded the opportunity to compare the job satisfaction of the solid waste manual laborers to other workers who had been scored on that index. Table 24 allows one to judge what the mean scores at Time I and Time II indicate.

It becomes apparent that the solid waste employees indicated higher job satisfaction than those city employees who held much higher ranking jobs. The first two groups in the table are the employees upon whom the Job Satisfaction Index was validated. Other groups were administered the Index but the information was not given for their mean scores or their ranges. The figures in Table 24 indicate that the subjects of the present investigation are as well satisfied with their jobs as those male office workers who rank so far above the solid waste employees in occupational prestige. It may be concluded that the subjects of the present investigation have low moderate job satisfaction.

TABLE 24

JOB SATISFACTION OF FOUR GROUPS OF WORKERS EMPLOYED  
AT DIFFERENT LEVELS OF OCCUPATIONS

Group	Mean Job Satisfaction	Standard Deviation	Coefficient of Variability	N
Personnel Employees <sub>a</sub>	76.9	8.6	.11	40
Employed in Non-Personnel Work <sub>a</sub>	65.4	14.0	.21	51
High Level Office Personnel Employed by a City (male) <sub>b</sub>	60.5	15.0	.25	41
Solid Waste Employees of the City of Denton (Time I) (male)	62.1	7.6	.12	33

<sup>a</sup>Personnel employees and non-personnel employees were enrolled in graduate courses in Personnel Psychology. They worked full-time and were part-time students working toward a graduate degree in Personnel Psychology. Arthur H. Brayfield and Harold F. Rothe, "An Index of Job Satisfaction." Journal of Applied Psychology, 35, October, 1951, 310-311.

<sup>b</sup>Arthur H. Brayfield, Richard V. Wells, and Marvin W. Strate, "Interrelationships Among Measures of Job Satisfaction and General Satisfaction," Journal of Applied Psychology, 41, August, 1957, 204.

#### Summary

The foregoing descriptive chapter included a wide variety of information, ranging from demographic characteristics to social-psychological information. A large part was given to the analysis of the "Satisfaction With Work Characteristics" which is not considered in depth at any other point in the reporting of the investigation.

The median age is 24; the median educational attainment is 7.5 years; 60 per cent of the subjects are married. Of the 45 subjects 46.7 per cent are fathers; of those 21 fathers there is an average of 3.8 children each. The median education of the fathers of the subjects is five years but the modal education is none. A large majority of the subjects come from families of unskilled labor, 64.4 per cent.

The median number of years of employment in the solid waste department is two years. About 36 per cent of the subjects reported having held the same job for the past five years. Another eighteen per cent has only had two jobs within the past five years. It was observed that by Taylor's criterion, the majority of the solid waste employees may be considered to be as stable as the average American worker.

Working outside in all kinds of weather does not bother about 87 per cent of the workers and getting dirty while they are doing their work does not bother about 73 per cent of the respondents. About one-fourth of the respondents were fairly sure that the public appreciates their work and about 58 per cent reported that some of the people on their routes do thank them for the services rendered.

Almost 58 per cent said that they felt any suggestions for improving the work would be welcomed by the supervisor but another 20 per cent did not know; 11 per cent replied "no" and another 11 per cent chose not to answer the question.

About 65 per cent reported that they are sometimes or often told that they are doing a good job by someone in their department.

Twenty-seven per cent of the respondents felt fairly sure that they could keep their jobs for as long as they would like and another 42.2 per cent were able to say that they were almost sure. It was observed that the question of job security appeared to bring about much anxiety in the majority of the workers. They could provide no reason for not being entirely such except that "it was up to the boss." They made no association between satisfactory work and keeping the job.

All who responded to the question about satisfaction with the men with whom they work indicated that they were satisfied.

The work values indicate that there is a strong acceptance to the value of hard work, not wasting time, the acceptance of responsibility, and not quitting when it appears that one cannot make progress. The acceptance of those values may account for the reported satisfaction with the job.

The group may be described as feeling despair if Srole's items indicate despair, rather than alienation from society. Whatever Srole's items measure, the solid waste employees rank higher than Srole's sample who represent three basic socio-economic levels. If the workers are considered to be alienated from society, it may be that they see their

situations as rather hopeless and that may be a realistic view rather than an unrealistic one.

The high ranking on the Protestant Ethic items indicates that they accept what are commonly called American values and they are aware that they are expected to value them. The conflict between accepting the work ethic and seeing their situations as more or less hopeless may explain the lack of fervent response to any items. Rarely did a respondent make use of a superlative in any of his answers. The interpretations offered are only speculations. The question of acquiescence appears to be unanswered, although there is some support for believing that it was not a great part of the results. The failure of the Mexican-Americans to agree with the non-Protestant Ethic items so often as they did with the pro-Protestant Ethic items would indicate that they were not necessarily trying to please.

The solid waste employees were found to be a youthful group in average age and to have an average educational level of 7.5 grades. They come from families of unskilled laborers but are viewed as moderately stable in employment. They like their co-workers and recognize a difference between themselves and their supervisors both in responsibility and abilities. The majority accept the Protestant Ethic work values and rank high on Srole's anomia items which reflect despair or alienation from society.

## CHAPTER VI

### TESTS OF HYPOTHESES RELATED TO JOB SATISFACTION

#### Hypotheses in Response to Herzberg's Theory

Five hypotheses were constructed to test the explanatory power of parts of Herzberg's two-factor theory of job satisfaction. Central to Herzberg's theory is the idea that man has two basic needs which are filled by factors having different sources.<sup>1</sup> The need to avoid pain is met by extrinsic factors or job context factors. The need for psychological growth or pleasant experiences is met by intrinsic factors or job content factors. The functions of extrinsic and of intrinsic factors were explored among unskilled manual laborers. To test the assumption that extrinsic factors cannot influence job satisfaction, the first hypothesis was stated to reflect the researcher's belief that one extrinsic factor, the amount of physical exertion, does influence job satisfaction among unskilled manual laborers. The four hypotheses which followed were intended to test the dichotomous nature of the functions of extrinsic

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<sup>1</sup>Frederick Herzberg, Work and the Nature of Man (Cleveland: The World Publishing Co., 1966), 44-56.

and of intrinsic factors among the unskilled manual laborers employed in the Denton Solid Waste Department. Each of the five hypotheses related to Herzberg's theory of job satisfaction is stated and the method of testing each is briefly reviewed. The statistical procedures and results are presented along with brief comments. After the results of the testing of the hypotheses have been reported, an attempt to explain the results and evaluate Herzberg's theory is presented.

### Hypothesis I

Hypothesis I states that there is a negative association between the amount of physical exertion required by the job among unskilled manual laborers and job satisfaction.

Procedures for Testing the Hypothesis.--Job satisfaction scores were obtained through interviewing employees of the Denton Solid Waste Department six weeks before the system of solid waste collection was changed from more physical exertion for the collectors to less physical exertion. Job satisfaction scores were determined about six weeks after the change in physical exertion through the same procedure, using the Job Satisfaction Index. The self-control design was implemented to decrease the effects of unknown or uncontrolled factors which could influence job satisfaction before or after. Only those subjects for whom job satisfaction scores were available at both points were considered.

Physical exertion had increased for the drivers and decreased for the collectors; for purposes of testing the hypothesis the two work roles were separated for analysis.

Statistical Test.--The Sign Test was considered to be the most appropriate test to determine if a significant difference in job satisfaction between Time I and Time II was present. The results of the Sign Test for workers in each of the positions are presented in Tables 25 and 26.

TABLE 25  
CHANGE IN JOB SATISFACTION FOR DRIVERS BY  
DIRECTION OF CHANGE

Subject Number	Job Satisfaction Scores		Sign
	Time I	Time II	
2	63	57	-
8	66	65	-
9	65	64	-
17	70	65	-
18	66	63	-
23	58	67	+
30	67	71	+
31	64	71	+
32	43	56	+
33	68	65	-
35	65	66	+

Sign Test

P = .50

TABLE 26

CHANGE IN JOB SATISFACTION FOR COLLECTORS BY  
DIRECTION OF CHANGE

Subject Number	Job Satisfaction Scores		Sign <sup>a</sup>
	Time I	Time II	
1	57	53	-
4	57	59	+
5 <sup>b</sup>	74	38	-
10	62	63	+
13	59	60	+
14	57	63	+
19	62	63	+
20	62	62	0
22	52	55	+
24	75	67	-
25	60	65	+
27	44	56	+
28	69	67	-
34	63	66	+

Sign Test

p = .1333

<sup>a</sup>The two scores of subject number 20 indicate no difference from Time I to Time II and the subject is eliminated; the number of subjects is reduced from fourteen to thirteen.

<sup>b</sup>Subject number five is more than four standard deviations from the mean at Time II and may be eliminated. However, elimination of the deviant subject only reduces the probability of rejecting the null hypothesis of no significant difference to .073.

A measure of association between physical exertion and job satisfaction was used to test Hypothesis I which predicted a negative association between physical exertion and job satisfaction.

Classification of high and low job satisfaction was based on the median job satisfaction for the subjects who had job satisfaction scores at Time I and at Time II. At both times, the median job satisfaction score was 63; high job satisfaction includes scores of 63 or above and low job satisfaction includes all scores below 63. Yule's Q revealed the following association between physical exertion and job satisfaction for the collectors.

TABLE 27

## PHYSICAL EXERTION AND JOB SATISFACTION

Job Satisfaction	Physical Exertion	
	High	Low
High	4	7
Low	10	7

$$Q = .43$$

$$df = 3$$

$$\text{Chi-square} = 19.40$$

$$p < .001$$

Results of the Test of Hypothesis I.--Hypothesis I is supported. There is a negative association between physical

exertion and job satisfaction for collectors in the solid waste department. Nine of the collectors increased in job satisfaction when their physical exertion was decreased and only four decreased in job satisfaction. The physical exertion of the drivers increased at Time II; five expressed an increase in satisfaction while six drivers expressed a decrease. There is indication that the majority of the workers whose physical exertion was decreased experienced an increase in job satisfaction.

#### Hypothesis II

Hypothesis II states that there is no significant difference in the mentioning of extrinsic factors when manual laborers talk about satisfying aspects of their present job and when they talk about dissatisfying aspects of their job.

Procedures for Testing the Hypothesis.--Respondents who were interviewed during the month of March were asked what they liked best about their job in the solid waste department. An attempt was made to lead the respondent to make reference to a characteristic which could be classified as extrinsic or intrinsic. Following the response to that question, the subject was asked to think of what he most disliked about his job. Again there was an attempt to lead the respondent to refer to a characteristic which could be classified as extrinsic or intrinsic. Some subjects gave

more than one response to each of the questions while others replied that there was nothing they liked about the job or nothing they disliked about the job. Still others replied that they disliked everything about the job or liked everything about the job. Only the first response which could be classified as extrinsic or intrinsic was counted in the scoring of responses. To consider each classifiable response would inflate the influence of some more verbal respondents over those who were unable to give more than one or no classifiable response. All responses were recorded, however, and a subject was never told that he was not answering the question as the interviewer desired. The responses were classified as extrinsic, intrinsic, or not classifiable.

Statistical Test.--The chi-square one-sample test was chosen to test the hypothesis of no significant difference in mentioning extrinsic factors in the context of job satisfaction and in the context of job dissatisfaction. Table 28 indicates the frequencies in each situation and the chi-square value.

TABLE 28

FREQUENCIES OF EXTRINSIC FACTORS MENTIONED IN REFERENCE TO SATISFACTION AND TO DISSATISFACTION

	Satisfaction	Dissatisfaction
Extrinsic Factors	33	29

Chi-square = .258

df = 1

$p < .70$   
 $> .50$

Results of the Test of Hypothesis II.--The hypothesis stated that there is no significant difference in the mentioning of extrinsic factors in association with satisfaction and with dissatisfaction. The hypothesis was supported and the observed frequencies appear to indicate that there is reason to conclude that extrinsic factors are considered as often by unskilled laborers to be satisfiers as they are to be dissatisfiers. Other possible interpretations of the result are discussed later in the evaluation of Herzberg's theory.

### Hypothesis III

Hypothesis III states that there is no significant difference in the frequencies of mentioning intrinsic factors when laborers talk about satisfying aspects of their present job and when they talk about dissatisfying aspects of their job.

Procedures for Testing the Hypothesis.--The procedure for testing Hypothesis III was the same as that described for Hypothesis II, with one exception. Extrinsic factors were tabulated for responses in order to test Hypothesis II and intrinsic factors were tabulated in order to test Hypothesis III. The questions from which the responses were derived were the same in both instances.

Statistical Test.--Table 29 indicates that there were only four intrinsic responses to the questions about the

satisfying or dissatisfying aspects of the present job. A total of less than five cannot be tested for significance of difference.

TABLE 29

FREQUENCIES OF INTRINSIC FACTORS MENTIONED IN THE  
CONTEXT OF SATISFACTION AND IN THE CONTEXT  
OF DISSATISFACTION WITH THE PRESENT JOB

	Satisfaction	Dissatisfaction
Intrinsic Factors	4	0

Decision about Hypothesis III.--The conclusion is drawn that although a test of significance cannot be conducted, the four intrinsic factors which were mentioned were within the context of satisfaction. That fact is in support of Herzberg's contention that intrinsic factors serve as satisfiers. The results of the tabulations may be considered as an indication of support or absence of nonsupport of the role of intrinsic factors in job satisfaction. No reliability may be placed upon such a small number of responses.

#### Hypothesis IV

Hypothesis IV states that there is no significant difference in the frequencies of mentioning extrinsic factors when laborers talk about the best job they have ever held and when they talk about the worst job they have ever held.

Procedures for Testing the Hypothesis.--During the first interview sessions in March, 1973, the subjects were asked to think about all the jobs they had ever held and choose the one which they considered best. After the choice had been given, they were asked to explain why that job had been chosen in preference to other jobs. Reasons for selecting the job as best were recorded and later classified as extrinsic or intrinsic factors which were reported to affect the decision. Again, there were those subjects who gave answers which could not be classified as extrinsic or intrinsic. Even though all the reasons given by each man were recorded, only the first classifiable response was tabulated for testing the hypothesis.

Statistical Test.--The chi-square one-sample test was chosen to test the hypothesis of no significant difference between the frequencies of mentioning extrinsic factors in the context of job satisfaction and in the context of job dissatisfaction. Table 30 indicates the frequencies of extrinsic factors which occurred in each context; the chi-square value and level of significance are given.



when laborers talk about the best job they have ever held and when they talk about the worst job they have ever held.

Procedures for Testing the Hypothesis.--The data for testing Hypothesis V were gathered at the same time and from the same questions which provided data for testing Hypothesis IV. Those responses which were classified as intrinsic provided the specific data for testing Hypothesis V.

Statistical Test.--The binomial test was judged to be appropriate for testing the hypothesis of no significant difference between the frequencies of intrinsic factors in satisfying and in dissatisfying contexts. Chi-square could not be used as the expected frequency within each of the two categories is less than five. The distribution of intrinsic responses and the probability level are presented in Table 31.

TABLE 31

FREQUENCIES OF MENTIONING INTRINSIC FACTORS WITHIN THE CONTEXTS OF BEST JOB AND WORST JOB EVER HELD

	Best Job (Satisfaction)	Worst Job (Dissatisfaction)
Intrinsic Factors	8	0

$p < .004$

Results of the Test of Hypothesis V.--The hypothesis of no significant difference in the occurrence of intrinsic

factors in association with satisfaction and with dissatisfaction as reflected by responses to the questions regarding the best job and worst job is rejected. Every intrinsic response is within the context of satisfaction.

If intrinsic factors are related to job satisfaction, then those respondents who mentioned intrinsic factors should have a higher median job satisfaction score than the remainder of the subjects who mentioned no intrinsic factors in the context of satisfaction. Table 32 indicates the median job satisfaction scores for each of the groups at Time I and at Time II.

TABLE 32

MEDIAN JOB SATISFACTION SCORES FOR TIME I AND  
TIME II FOR SUBJECTS BY PRESENCE OR  
ABSENCE OF INTRINSIC FACTORS

Median	Intrinsic Factors			
	Time I		Time II	
	Present	Absent	Present	Absent
Job Satisfaction	66 N = 9	63 N = 25	65 N = 11	62.5 N = 25

The median job satisfaction scores differ at both times when the respondents are separated by presence or absence of intrinsic factors. The median job satisfaction scores are higher for those subjects who mentioned intrinsic factors in association with job satisfaction.

Evaluation of Herzberg's Theory  
in Explaining Job Satisfaction  
Among Unskilled Manual Laborers

The hypotheses which were tested to represent a basis upon which to judge the explanatory power of Herzberg's dual-factor theory of job satisfaction indicate that the extrinsic and intrinsic factors are not separate and distinct for the unskilled manual laborers. An extrinsic factor, physical exertion, was found to be negatively related to job satisfaction. When physical exertion was decreased for the collectors in the Denton Solid Waste Department, there was an increase in job satisfaction. Although the Sign Test indicated that the increase was not significant at the .05 level, Yule's Q indicated that there was an inverse relationship between physical exertion and job satisfaction ( $-.43$ ), which is a moderate negative association. Only the presence of intrinsic factors, which occurred very infrequently, followed Herzberg's contention of the separate and distinct nature of the two types of factors.

It must be concluded that Herzberg's factors do not form a dichotomy; they are not separate and distinct among the Denton Solid Waste employees. Working conditions do influence job satisfaction among the employees who were investigated.

If Herzberg's later work is considered in the evaluation of his theory, it may be concluded that extrinsic

factors are serving as satisfiers for the solid waste collectors and to retain their present levels of satisfaction, there must be a constant flow of extrinsic factors to promote and retain satisfaction with the job.<sup>1</sup> It may be that the job contains few intrinsic factors or it may be that the majority of the men within the department have been socialized to rely on extrinsic factors for satisfaction in work.<sup>2</sup> Nevertheless, within the context of the present investigation Herzberg's dual-factor theory appears to offer little or no help in predicting job satisfaction or explaining job satisfaction among the unskilled laborers employed within the Denton Solid Waste Department and it is unlikely that those men who served as subjects differ from men who are employed in similar jobs.

As recognized earlier there is conflicting evidence related to Herzberg's dual-factor theory. Points for and against Herzberg may be summarized as follows.

Points in Support of Herzberg

1. Intrinsic factors were mentioned only in the context of satisfaction.

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<sup>1</sup>Frederick Herzberg, The Motivation to Work (New York: John Wiley and Sons, 1959), 80, 81.

<sup>2</sup>Ibid., 102, 115, 132.

2. Those subjects who mentioned intrinsic factors had higher median job satisfaction scores than those who mentioned no intrinsic factors.

#### Points Against Herzberg

1. A negative association was found between the amount of physical exertion required by the job and job satisfaction. Herzberg's dual-factor theory indicates that an extrinsic factor cannot serve as a satisfier. He specified working conditions as the least likely to influence job satisfaction.
2. Extrinsic factors were found to be mentioned as often in the context of job satisfaction as in the context of job dissatisfaction.

#### Hypothesis Based on Homans' Theory of Distributive Justice

Homans' theory of distributive justice is based on the assumption that in American society there are certain values which guide the employee's feelings about the justice or injustice of the balance or imbalance between his social investments in the job and the rewards which he receives. Homans observed that trouble is expected if the rewards of the job are felt to be below the investments the worker brings to the job. He further observed that the feeling of justice

or injustice is judged in relation to the balance between rewards and investments of other workers with whom the person or persons are in contact. The factors which are considered to constitute the investments are those which Homans feels are generally accepted in the society. Those investments which he chose to include in his formula for measuring the relationship between investments and rewards are: age, sex, ethnicity, seniority, and educational attainment. Although Homans recognized rewards of the job other than pay, pay is the only reward which he entered into his formula. With increasing age a person should expect to receive more pay than a younger co-worker; a male employee should expect to receive higher pay than a female employee; an employee who has been in a job longer than another should expect more pay. One who has higher educational attainment should expect more pay than an employee who has less formal education.

Although Homans and his associates found no association between job satisfaction and the reward-investment index, an examination of the reasons given in an attempt to explain the lack of association indicates that the present investigation differed in some important respects to the

research reported by Homans and associates.<sup>1</sup> Those differences are given in an attempt to justify the testing of the theory of distributive justice in the investigation of job satisfaction among the solid waste employees.

The following reasons were given as possible explanations of the failure of the reward-investment theory to explain job satisfaction in the above-mentioned study.

1. The subjects of the investigation were from a working population who had worked together long enough to accommodate themselves to any injustice which newcomers would resent.

2. Other variables may have masked the relationship between job satisfaction and distributive justice.

3. The measure of job satisfaction which was used may have been too crude to indicate differences.

4. The factors considered to be the social investments may not have been viewed by the subjects as the important investments.

The population of the solid waste department has a large proportion of stable workers, but not to the extent that

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<sup>1</sup>George C. Homans is not listed as an author but recognized as a collaborator in The Motivation, Productivity and Satisfaction of Workers: A Prediction Study. Within the section of the present research which refers to the theory of distributive justice and the related research project in which Homans is considered a collaborator, Homans is given credit as the author. The theory is clearly that developed by Homans.

is implied in the statement that the subjects of the earlier research "had a long history." The measure of job satisfaction used in the present research is very different from that of Homans' measure. It is not geared to a specific job and the scoring procedures are very definite, rather than open-ended questions about specific areas of the job itself, which Homans and his associates used. The measure of job satisfaction used in the present research was different, if not superior. Explanations two and four to which Homans refers may affect the results in the present research but it is believed that at least two difficulties have been eliminated.

#### Hypothesis VI

Hypothesis VI states that the higher the rewards in proportion to the investments of unskilled manual laborers, the higher the job satisfaction.

Procedures for Testing the Hypothesis.--During the first interview with the solid waste employees, the information which furnished the social investments was gathered. Later the reward factor, pay, was gathered from departmental records. The actual amounts of pay checks received two weeks prior to the interviews and two weeks after the interviews were combined for each respondent and ranked. Adjustments were made in the values for each of the components in the formula to follow Homans as nearly as possible. Each subject

received the highest ranking of twenty for being male; two ethnic groups were identified and the Anglo-Americans were assigned twenty points while the Mexican-Americans were assigned ten points. The procedures for scoring investment components have been outlined elsewhere but the point to be made here is that his formula was followed as closely as possible. A Reward-Investment Index was computed for each subject for which information was available. The Job Satisfaction Index provided the job satisfaction level.

Statistical Test.--Yule's Q was chosen as the proper measure of association between the Reward-Investment Index and job satisfaction. The high job satisfaction category consists of those subjects whose scores are at the median or above; low job satisfaction is that which falls below the median. Job satisfaction scores from Time I were used. The Reward-Investment Index was divided in the same manner. Table 33 illustrates the results.

TABLE 33

ASSOCIATION BETWEEN REWARD-INVESTMENT  
AND JOB SATISFACTION

		Reward-Investment	
		High	Low
Job Satis- faction	High	12	8
	Low	5	6

Yules Q = .29    Chi-square = .90     $p < .90$   
 $> .80$

Results of the Test of Hypothesis VI.--A Yule's Q of .29 indicates a low positive association between the Reward-Investment Index and job satisfaction among the solid waste employees. The test of significance, chi-square, indicates that the low association found cannot be accepted with any degree of confidence. Therefore, Hypothesis VI is rejected.

Even though a low positive association was found to exist between job satisfaction and the reward-investment index and chi-square indicated that the association is not significant at the .05 level, the association found to exist among the 31 subjects may be compared with Homans' findings. He did not report a measure of association or test of significance but presented the data in a 2 X 2 table and concluded that there was no association. Yule's Q and chi-square for that table were computed and are presented below:

TABLE 34  
SATISFACTION AND R-I INDEX<sup>a</sup>

		Satisfaction	
		High	Low
R-I Index	Favorable	12	11
	Unfavorable	13	11

$$Q = -.04 \quad \text{Chi-square} = 2.04 \quad \text{df} = 3$$

$$p < \frac{50}{30}$$

<sup>a</sup>Taken from Zalesnik, et al., Table 7.5, p. 270.

The association between job satisfaction and the R-I Index in the present investigation is higher than in Homans' research and his association was in a negative direction, while the present result indicates a positive direction. It may be that the solid waste employees have not reached a relationship of accommodation to the sense of injustice in the sense of distributive justice or it may be that the reward in the nature of pay is more important to the solid waste employees than to Homans' sample of employees "who have a history."

Hypothesis Based on Merton's  
Reference Group Theory

Hypothesis VII

Hypothesis VII states that there is an inverse relationship between the occupational level of reference group members and job satisfaction among unskilled manual laborers.

If unskilled manual laborers measure their own success by the relative success of those in their reference group, and if that relative evaluation influences their job satisfaction, then there should be an inverse relationship between the Reference Group Index and job satisfaction among unskilled laborers. Their job as solid waste employees is ranked one, which is the lowest. According to reference group

theory, the higher the ranking of the combined ranks of the members of the reference group, the lower the job satisfaction of the unskilled manual laborer.

Procedures for Testing the Hypothesis.--The data for testing the hypothesis were gathered during the first interview session. Each respondent was asked the usual occupation of his father and the occupations of his three closest friends. Each occupation was ranked from one through four, depending upon the level of the occupation named. The sum of the ranks was divided by the number in the reference group to obtain the RGI (Reference Group Index).

Statistical Test.--Yule's Q was chosen as the proper measure of association to determine the amount and direction of the association between the RGI and job satisfaction.

Results of the Test of Hypothesis VII.--The result of the test of the hypothesis is presented in Table 35.

TABLE 35

ASSOCIATION BETWEEN REFERENCE GROUP  
INDEX AND JOB SATISFACTION

		Reference Group Index	
		High	Low
Job Satis- faction	High	7	11
	Low	5	10

Yule's Q = .12    Chi-square = .1528    df = 3  
 $P < .99$   
 $> .98$

Yule's Q of .12 indicates that there is a very slight positive association between Reference-Group Index and job satisfaction. The majority of the solid waste laborers for whom job satisfaction scores were available at Time I come from families of unskilled labor and have friends at the same level. The proportions of those who have median job satisfaction or above and those who have both father and friends at their own level are about equal. The test of significance indicates that even the slight association found to exist cannot be accepted with any confidence for the entire group.

Therefore, Hypothesis VII is rejected. There is essentially no association between reference group occupational level and job satisfaction among the solid waste employees.

#### Hypothesis Related to Acceptance of the Protestant Ethic Work Values

##### Hypothesis VIII

Hypothesis VIII states that there is a positive association between the acceptance of the Protestant Ethic work values and job satisfaction among the unskilled manual laborers.

Procedures for Testing the Hypothesis.--Blood's eight items of work values were given to the respondents during the second interview. The eight items were identified by Blood as Dimension I and Dimension II, consisting of four items in each dimension. Only those items in Dimension I were

identified as Protestant Ethic work values; only Dimension I was used in testing the hypothesis. Job satisfaction scores obtained during the first interview were used to measure job satisfaction. The use of the first job satisfaction scores is justified by the view that such procedure prevented the interference of changes in working conditions masking the possible association.

Statistical Test.--Yule's Q was again selected as the proper measure of association to test the hypothesis. The results are as follows in Table 36.

TABLE 36

ASSOCIATION BETWEEN ACCEPTANCE OF PROTESTANT  
ETHIC WORK VALUES AND JOB SATISFACTION

		Protestant Ethic Work Values	
		High	Low
Job Satis- faction	High	12	1
	Low	9	3

Yule's Q = .60    Chi-square = 12.30    p < .01  
df = 3

Results of the Test of Hypothesis VIII.--Among those subjects who gave responses to the Protestant Ethic work values and for whom job satisfaction scores were available during the first interview, there is a moderately high association between the acceptance of the Protestant Ethic work

values and job satisfaction. The test of significance indicates that the association is significant at less than .01. Therefore, Hypothesis VIII is supported.

When the proportions of those unskilled laborers on which the association is based are examined, 21, 84 per cent, of the total of 25 subjects reflected high acceptance of those work values. Of the 84 per cent, 57 per cent ranked at the median or above and were classified as high in job satisfaction. Forty-three per cent of the 84 per cent ranked low on job satisfaction. Only four respondents indicated low acceptance of Protestant Ethic work values. Seventy-five per cent of those having low acceptance of the work values had low job satisfaction scores.

### Summary

As indicated earlier the first five hypotheses which were stated in opposition to Herzberg's two-factor theory reflected doubt that the two-factor theory would explain job satisfaction among the subjects of the population investigated. The support of Hypothesis I may be interpreted to question Herzberg's view that extrinsic factors cannot provide job satisfaction or influence job satisfaction. A negative association was found to exist between the amount of physical exertion and job satisfaction. Evidence has been presented that re-evaluation of the two-factor theory should be

considered. No significant difference was found in the mentioning of extrinsic factors in the context of job satisfying situations and in the context of job dissatisfying situations (Hypothesis II, Hypothesis IV). Very few intrinsic factors were mentioned by the respondents but in every instance, those factors occurred in the context of job satisfying situations. Among the possibilities of explaining the findings of the occurrence of extrinsic and intrinsic factors, the following two explanations are offered as the most plausible:

1. There are few if any intrinsic factors present in the job of solid waste manual laborer or in other jobs previously held by the subjects (which were usually manual labor).
2. The subjects are oriented toward extrinsic factors as sources of both satisfaction and dissatisfaction in work.

Those few subjects who indicated intrinsic factors as sources of satisfaction were found to have higher median job satisfaction than those who mentioned no intrinsic factors. No test of significance of differences in the median scores was attempted as the number of subjects who mentioned intrinsic factors and for whom job satisfaction scores were obtained was too small to place confidence in the results. Rather, the conclusion is accepted that there is a trend among those subjects who recognized intrinsic factors as contributing to satisfaction to have higher median job satisfaction

than those who indicated no intrinsic factors. Thus, tentative support for the function of one of Herzberg's two factors is in the direction which he claimed.

Homans' theory of distributive justice was found to contribute little to the explanation of job satisfaction ( $Q = .29$ ) and the test of significance indicated that the hypothesis must be rejected. Pay was the only reward considered and it is possible that there are other rewards, neither identified nor considered, which may have changed the results. In Herzberg's terminology pay is an extrinsic factor and cannot serve as a satisfier.

Merton's reference group theory contributed even less ( $Q = .12$ ) in accounting for job satisfaction. Two possible explanations are offered:

1. Only father and closest friends of each respondent composed the reference group in the testing of the hypothesis. Merton's reference group theory is much broader to include those to whom one aspires to be like as well as those to whom one desires to be unlike. The reference group selected in the present investigation was very narrow and may account for the low association found.
2. The subjects represent the lower social class among which the father may not have the same status with the family, or with the son, as that of the father in the middle or upper-class family.<sup>1</sup>

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<sup>1</sup>Robert O. Blood, Jr., The Family (New York: The Free Press, 1972), 70-71. Blood gives reference to studies by Schneider and Homans, 1955 and Adams, 1967, as evidence of the statement.

The reference group is construed to be those to whom the solid waste workers compare their relative success in the work world and consequently, their satisfaction with the job. If the wrong persons were selected to form the reference group, then the reference group may contribute more to the explanation of job satisfaction than was found in the present study.

The Protestant Ethic work values offered a higher association with job satisfaction ( $Q = .60$ ) than either of the three theories previously tested in association with job satisfaction.

Of the four theoretical frameworks considered, the Protestant Ethic work values offered the most promise in explaining job satisfaction among the solid waste employees.

## CHAPTER VII

### CONCLUSIONS AND IMPLICATIONS FOR FUTURE RESEARCH

#### Introduction

The central problem of the research was to evaluate the explanatory power of four different theoretical frameworks when they are applied to the findings related to job satisfaction among unskilled manual laborers employed in the Denton Solid Waste Department.

A review of the literature on job satisfaction revealed the lack of attention to that lower strata of the working population. Most studies were found to concentrate on semi-skilled, skilled, or professional personnel. When manual laborers were included, their representation was very small both in percentage and number.

One theory has dominated the literature within the past two decades, Herzberg's two-factor theory which presented a unique approach to the concept of job satisfaction. Rather than viewing job satisfaction as operating on a continuum, Herzberg's view is that job satisfaction is composed of, and has its source in, one of the basic needs of man while dissatisfaction is composed of, and has its source in, a different basic need of man. Factors which influence satisfaction

do not influence dissatisfaction; the reduction in dissatisfaction does not bring about satisfaction. Other theories which have received little attention by those who have studied job satisfaction were found to be reference group theory and the theory of distributive justice. The fourth theoretical frame of reference was provided by Milton Blood's reference to Protestant Ethic work values, developed for the purpose of evaluating re-training programs among the hard-core unemployed.

Eight hypotheses were constructed and tested in an attempt to determine which theoretical orientation, or theory of job satisfaction, appeared to best explain the findings among the Denton Solid Waste manual laborers. The strategy of theoretical triangulation provided the guide for explaining the findings, i. e., using four theoretical frameworks for interpreting the same data in order to determine which explains the findings best.

#### Data Collection

The major source of data for testing the hypotheses was the semi-structured interview technique. Forty-five men comprised the total number of subjects; thirty-five were interviewed in March and thirty-seven in June. More than twenty-five were interviewed at both times but there were only twenty-five who served as their own controls to assess

job satisfaction change after the process of collection of solid waste was altered from site pick-up to the on the curb system with the use of plastic bags.

Before the interviews were conducted, visits were made to the department and the men were observed as they reported to work or left work. Supervisors and the superintendent provided information about operations within the department and departmental records which furnished rates of pay, work schedules, accident reports, and records of hiring, firing, or the length of time certain men remained with the department.

In Chapter V much descriptive information appears which adds to knowledge about unskilled laborers working in the area of solid waste collection. In some ways they are a highly diverse population, ranging in education from some college work to first grade or second grade formal education. The age range is very broad and there are two major ethnic groups within the department. The job satisfaction levels indicate that although the employees are satisfied with their jobs, they are not a highly satisfied group. Their median job satisfaction score, as measured by the Brayfield and Rothe index, was 63 at Time I and at Time II. The index has a possible range of 18 to 90, having a neutral score of 54; the median score of 63 is only nine points above the neutral

score which is the point of division between satisfaction and dissatisfaction.

Work records indicate that they are more stable than has been assumed in sociological literature which describes the lower class male. It may be hypothesized that the short periods of employment for the unskilled labor category may be due to the nature of the organizations for which they usually work. Solid Waste Departments may be seen as providing a vital service and if unskilled men desire to work steadily, that is a job which is ever present. Technology may influence the number of men needed to carry out the work but the fact that the city of Denton, Texas, needs a work-force of about 45 men constantly and has needed about that number for some years, may account for the opportunity of steady employment. No conclusions may be drawn about the stability of unskilled labor in general. However, there may be some indication that the instability of the unskilled laborer has its source in the place of employment rather than the absence of the value of steady employment.

Following the strategy of theoretical triangulation, each of the theoretical frames of reference is evaluated to determine its contributions to the explanation of job satisfaction among the unskilled laborers within the Denton Solid Waste Department.

Evaluation of Theoretical Frames  
of Reference

Herzberg's Theory

Five hypotheses were tested relative to Herzberg's dual-factor theory of job satisfaction. Essentially it has been found that the dual-factor theory was not supported within the present research.

The Sign Test, which was used to determine if there was a significant difference in the change in job satisfaction from Time I to Time II, indicated that there was no significant change. However, Hypothesis I was stated to reflect the expectation that there is a negative association between physical exertion and job satisfaction. Physical exertion was reduced for collectors from Time I to Time II; inspection of the frequencies of increase in job satisfaction for collectors from the time of high physical exertion to low physical exertion for the collectors from Time I to Time II indicated that further exploration of the data was in order. Yule's Q was the measure of association chosen to find the association between the amount of physical exertion and job satisfaction. As indicated in the previous chapter, the association between physical exertion for the collectors and job satisfaction was found to be inversely related. The negative Q of  $-.43$  may be considered a moderately negative association between physical exertion and job satisfaction. Herzberg had contended that

an extrinsic factor (physical exertion) cannot influence job satisfaction.

The tests of the other hypotheses related to the occurrence of extrinsic or intrinsic factors within the contexts of job satisfaction or job dissatisfaction resulted in the conclusion that extrinsic factors serve as both satisfiers and as dissatisfiers. The occurrence of twelve intrinsic factors, all within the context of job satisfaction, was in the direction of Herzberg's statement that only intrinsic factors can produce job satisfaction. However, when the manner in which the intrinsic factors were expressed is considered, there is doubt that those factors are serving as satisfiers in Herzberg's terms. They were expressed in a negative fashion, indicating avoidance of pain, which is the basic need underlying extrinsic factors. For instance, the responses were "no boss," "nobody on your back all the time," etc. Considering the conflict in the manner of expression of intrinsic factors and their contexts, it may be concluded that even those intrinsic factors mentioned within the context of satisfaction represented the avoidance of pain.

Reconsidering the results of the testing of hypotheses constructed to challenge Herzberg's theory, the following conclusions are offered:

1. A negative association was found to exist between physical exertion and job satisfaction,

which indicates that the extrinsic factor, physical exertion, does influence job satisfaction. Herzberg's earlier theory that extrinsic factors cannot serve as satisfiers was not supported.

2. Extrinsic factors appeared about as often within the context of satisfaction as they did within the context of dissatisfaction.
3. Only twelve intrinsic responses were given and they were within the context of satisfaction, as predicted by Herzberg. But, when the manner of expressing the intrinsic factors is considered, one notices that the form of the answers represents the avoidance of pain, which underlies extrinsic factors in Herzberg's theory.

There is very strong evidence that the dual-factor theory of job satisfaction does not explain job satisfaction among the unskilled laborers within the Denton Solid Waste Department.

### The Theory of Distributive Justice

The association between Homans' theory of distributive justice and job satisfaction was found to be moderate and in a positive direction. The failure to attain a higher association may be explained in one or more ways. It is possible that the investments of age, education, ethnic status, and seniority are not the investments which the solid waste collectors consider important. In Homans' formula an increase in age is interpreted as an increase in investment. Among unskilled manual laborers, the stronger, more able

workers are not the older workers but are usually the younger ones. Education is neither a requirement for the job nor for promotion within the department from collector to driver. Those two factors may provide clues to the failure to find a high association between the R-I Index and job satisfaction. A third factor, pay, which was the only reward considered by Homans and in the present research, may not be sufficient to measure reward. Other rewards may be more important to workers at any level, but especially to the unskilled. However, it is probable that the investments provide the most potent explanation for the failure of the reward investment index to be highly associated with job satisfaction. Pay would appear to be a very important reward factor within the population investigated.

### Reference Group Index

The association between reference group index and job satisfaction was even lower than that of the reward-investment index and job satisfaction. The low association found between reference group index and job satisfaction may result from the composition of the reference group index. Merton's reference group theory includes two other sources of reference groups: (1) those people with whom the subjects are not close friends but who serve as models to be emulated; (2) those people with whom the subjects compare themselves and reject as

models--they are those whom the subjects consciously desire to be unlike. In the present research only the close friends with whom the workers enjoy spending time and the fathers of the workers were included to represent the reference group.

An interesting observation, which may offer an alternative explanation to the low association between reference group index and job satisfaction, occurred within the context of responses to some of the questions in the "Satisfaction With Work Characteristics." Very often when the respondents were asked to compare their own views to those of others, they replied that they could not speak for anyone other than themselves. It may be that the solid waste collectors do not compare themselves to others insofar as their success in work is concerned.

The reference group index employed in the present investigation was found to be associated with job satisfaction at a low level ( $Q = .12$ ). Knowledge of the reference group level reduces errors in classifying job satisfaction level very little over guessing.

#### Protestant Ethic Work Values

The highest association ( $Q = .60$ ) is between the acceptance of the Protestant Ethic work values, as measured by Milton Blood's Dimension I of his General Work Values, and job satisfaction of the subjects of the present investigation.

When the proportions of those unskilled laborers on which the association is based are examined, 21 (84 per cent) of the total of 25 subjects reflected high acceptance of those work values. Of the 84 per cent, 57 per cent ranked at the median or above and were classified as high in job satisfaction. Forty-three per cent of the 84 per cent ranked low on job satisfaction. Only four subjects were found to have low acceptance of Protestant Ethic work values. Percentagewise, 75 per cent of those having low acceptance of the Protestant Ethic work values also had low job satisfaction. In predicting job satisfaction knowledge of the level of acceptance of the Protestant Ethic work values contributes more than do the other three theoretical orientations.

### Conclusions

Herzberg's two-factor theory of job satisfaction was not supported in the present research and appears to offer little or no explanation for job satisfaction among the unskilled laborers employed in the solid waste department. Although the sign test indicated that there was no significant change in job satisfaction from Time I to Time II, Yule's Q yielded a negative association between physical exertion and job satisfaction (-.43). The respondents who named intrinsic factors mentioned them in the context of job satisfaction but the expression of those factors represented the avoidance of

pain rather than a pleasurable feeling. The weight of the evidence against Herzberg's dual-factor theory contributes to the conclusion that it does not help to explain job satisfaction among the unskilled laborers who were the subjects of the study.

The theory of distributive justice offered little power in predicting job satisfaction and an attempt has been made to account for the failure of the theory to predict job satisfaction within the present context.

Reference group theory offered even less explanatory power and possible reasons for its failure have been offered.

The highest association between job satisfaction and any of the four theoretical orientations considered occurred between the acceptance of the Protestant Ethic work values and job satisfaction.

Within the present study the different theories considered offer the following associations between the social indicators selected to represent the theoretical frames of reference and job satisfaction as measured by Brayfield and Rothe's Job Satisfaction Index.

TABLE 37

ASSOCIATION BETWEEN CERTAIN SOCIAL INDICATORS  
AND JOB SATISFACTION

Theorist	Independent Variable	Q Value
Herzberg	Physical Exertion	-.43
Homans	Reward-Investment Index	+.29
Merton	Reference-Group Index	+.12
Blood	Protestant Ethic work values	+.60

Recommendations for Future Research

The present study represents a pioneering effort to explain job satisfaction of one group of unskilled manual laborers through the strategy of theoretical triangulation.

Future research should include unskilled manual laborers from several different work settings and if the present theoretical frames of reference are used, suggestions have been made with reference to revisions of the social indicators which should be considered before the research is conducted. The most promising theoretical explanation has been shown to be that of the acceptance of the Protestant Ethic work values. Anti-Protestant Ethic work values should be developed and incorporated in future research. A much larger sample would permit partial correlations which may reveal masking effects which may have been operating to decrease the association between the independent variables and the

dependent variable, job satisfaction. That possibility should be investigated in future research among unskilled manual laborers.

The strategy of theoretical triangulation has resulted in the decision that knowledge of the acceptance of the Protestant Ethic work values is the theoretical frame of reference which exhibited the most power in explaining job satisfaction among the unskilled manual laborers employed in the Denton Solid Waste Department. Therefore, the observation is offered that further investigation of the association of work values and job satisfaction among the unskilled labor force within different work settings may provide the most promising step in explaining job satisfaction within that strata of the occupational hierarchy.

INTERVIEW SCHEDULE

INTERVIEW SCHEDULE

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Position: \_\_\_\_\_ How long have you worked in this department?

- 1. Questions related to your aspect of general job work.
- 2. How do you like your work?
- 3. What do you like about your job?

APPENDIX

- 4. How do you like the work you have been doing?
- 5. How do you like the job in the area?

Previous job history

During the last 10 years, how many times have you been laid off? What was the reason for each layoff? How long did you stay at each job? How long have you been here for the past five years?

What is your present salary? How do you like your present salary? How do you like your present work?

Satisfaction with work environment

How do you like your work environment? How do you like your supervisor? How do you like your co-workers? How do you like your present work?

How do you like your present work?

How do you like your present work? How do you like your present work?

How do you like your present work? How do you like your present work?

## INTERVIEW SCHEDULE

### First Interview

Subject No. \_\_\_\_\_ Date \_\_\_\_\_

Position: Driver\_\_\_\_; Collector\_\_\_\_. How long have you worked in this department?\_\_\_\_\_

- I. Questions related to best aspect of present job; worst aspect; and best job ever held; worst job ever held; why.
  - A. What do you like best about your job?
  - B. What do you not like about your job?
  - C. What is the best job that you have ever held?  
Why do you say that job is the best?
  - D. What is the worst job that you have ever held?  
Why do you say that job is the worst?
- II. Previous job history

Thinking about the jobs you have held during the past five years, can you tell me what they were? How many jobs have you held during the past five years? (Do not ask, if subject has worked here for the past five years.)
- III. Thinking of your three closest friends--don't give me their names--what type of work do they do?
- IV. (Satisfaction with work characteristics)
- V.
  - A. What type of work does your father do or has he done for most of his life? (If subject has difficulty in answering, ask what his father was doing when he (subject) was about 12 or 14 years old.)
  - B. How far did your father go in school?
  - C. How far did you go in school? What was the highest grade you completed?
  - D. When were you born?

VI. A. Are you married? (If yes, continue this section; if no, skip to Section VII)

B. Does your wife work outside the home?

C. How many children do you have? About how old are they? (If difficult, ask if pre-school, in school, working, married.)

VII. Do you own your home or do you rent?

VIII. Job Satisfaction Scale

IX. Anomia Scale

Second Interview

(If the respondent had not been interviewed in March, he was given entire first interview plus the Protestant Ethic Work Values Scale.)

Subject No. \_\_\_\_\_

Date \_\_\_\_\_

## I. Satisfaction with work Characteristics

Same as first interview except:

7. Do you like your job better now that the garbage is set on the curb in bags? If so, how much better?

9. Omit

## II. Job Satisfaction Index

## III. Blood's Work Value Scale

## SATISFACTION WITH WORK CHARACTERISTICS

1. How satisfied are you with your hours--that is, the time that you come to work in the morning and the time that you get off in the afternoon? How satisfactory is that schedule to you?  
very satisfied - satisfied - not very satisfied - not satisfied
2. How satisfied are you with the people with whom you work?  
very satisfied - satisfied - not very satisfied - not satisfied
3. How much does it bother you working outside in all kinds of weather?  
very much - pretty much - some - not very much - not at all
4. How satisfied are you with the pay that you get?  
very satisfied - satisfied - not so satisfied - not satisfied
5. How much do you think the people on your route appreciate what you are doing for them when you remove their garbage and trash?  
very much - pretty much - not very much - not at all
6. How much does it bother you when people call in and say that you have not picked up their garbage or trash?  
very much - pretty much - not very much - not at all
7. Do you think you will like your job better when all garbage is set on the curb in bags?  
very much better - some better - not very much better - it won't make any difference
8. Do you feel that your supervisor would like for you to make suggestions of ways to improve your job?  
yes - don't know - no

9. Did you miss any days from work during the last two pay periods?  
several different times - two times - one time - not at all
10. Do you feel pushed to work faster than you would like to?  
all the time - quite often - sometimes - almost never - not at all
11. Does anyone in the Sanitation Department ever tell you that you are doing a good job?  
often - sometimes - not very often - almost never - never
12. Do any of the people on your route ever thank you for what you are doing?  
often - sometimes - almost never - never
13. How much does getting dirty while you are working bother you?  
very much - pretty much - not very much - not at all
14. How often do you get so tired that you would like to quit your job?  
real often - often - sometimes - not very often - never
15. How often do you get so tired that you stay tired for the rest of the day?  
real often - sometimes - not very often - almost never - never
16. How often do you get so tired at work that you don't feel like doing things that you want to do when you're not at work?  
real often - sometimes - not very often - almost never - never
17. Considering the things about your job that are important to you, just how satisfied do you think you are with your job?  
very satisfied - satisfied - not so satisfied - not satisfied
18. How sure are you that you can keep your job for as long as you want to?  
very sure - sure - not so sure - not sure at all

## JOB SATISFACTION INDEX

### Responses:

Strongly agree

Agree

Undecided

Disagree

Strongly disagree

- + 1. My job is like a hobby to me.
- + 2. My job is usually interesting enough to keep me from getting bored.
- 3. It seems that my friends are more interested in their jobs.
- 4. I consider my job rather unpleasant.
- + 5. I enjoy my work more than time when I am not at work.
- 6. I am often bored with my job.
- + 7. I feel fairly well satisfied with my job.
- 8. Most of the time I have to force myself to go to work.
- + 9. I am satisfied with my job for the time being.
- 10. I feel that my job is no more interesting than others I could get.
- 11. I definitely dislike my work.
- + 12. I feel that I am happier in my work than most other people.
- + 13. Most days I am enthusiastic about my work.
- 14. Each day of work seems like it will never end.
- + 15. I like my job better than the average worker does.
- 16. My job is pretty uninteresting.
- + 17. I find real enjoyment in my work.
- 18. I am disappointed that I ever took this job.

## ANOMIA ITEMS

1. Most people in public offices are not really interested in the problems of the average man.
2. Nowadays a person has to live pretty much for today and let tomorrow take care of itself.
3. In spite of what some people say, the lot of the average man is getting worse, not better.
4. It's hardly fair to bring children into the world with the way things look for the future.
5. These days a person doesn't really know whom he can count on.
6. Most people really don't care what happens to the next fellow.
7. Next to health, money is the most important thing in life.
8. You sometimes can't help wondering whether anything is worthwhile.
9. To make money there are no right and wrong ways anymore, only easy and hard ways.

(First five Srole's; last four added by Miller and Butler, 1966.)

SCORING FOR JOB SATISFACTION INDEX

1. 5 4 3 2 1
2. 5 4 3 2 1
3. 1 2 3 4 5
4. 1 2 3 4 5
5. 5 4 3 2 1
6. 1 2 3 4 5
7. 5 4 3 2 1
8. 1 2 3 4 5
9. 5 4 3 2 1
10. 1 2 3 4 5
11. 1 2 3 4 5
12. 5 4 3 2 1
13. 5 4 3 2 1
14. 1 2 3 4 5
15. 5 4 3 2 1
16. 1 2 3 4 5
17. 5 4 3 2 1
18. 1 2 3 4 5

SCORING FOR "SATISFACTION WITH WORK  
CHARACTERISTICS"

1. 4 3 2 1
2. 4 3 2 1
3. 1 2 3 4 5
4. 4 3 2 1
5. 4 3 2 1
6. 1 2 3 4
7. 4 3 2 1
8. 3 2 1
9. Not part of it
10. 1 2 3 4 5
11. 5 4 3 2 1
12. 4 3 2 1
13. 1 2 3 4
14. 1 2 3 4 5
15. 1 2 3 4 5
16. 1 2 3 4 5
17. 4 3 2 1
18. 4 3 2 1

## SROLE'S INTERPRETATION OF ANOMIA ITEMS

### What He Thinks They Measure

1. Individual's sense that community leaders are detached and indifferent to his needs. Reflects severance of the interdependence bond within the social system between leaders and those they should represent and serve.
2. Individuals perception of the social order as essentially fickle and unpredictable--without order.
3. He and people like him are retrogressing from the goals they have already reached.
4. This one most clearly approximates Durkheim's particular definition of anomie; deflation or loss of internalized social norms and values, reflected in extreme form in the individuals sense of meaninglessness of life itself.
5. Perception that his framework of immediate personal relationships the very rock of his social existence was no longer predictive or supportive.

## GENERAL WORK VALUES

1. When the work day is finished, a person should forget his job and enjoy himself.
2. Hard work makes a man a better person.
3. The principal purpose of a man's job is to provide him with the means for enjoying his free time.
4. Wasting time is as bad as wasting money.
5. Whenever possible a person should relax and accept life as it is, rather than striving for unreachable goals.
6. A good indication of a man's worth is how well he does his job.
7. If all other things are equal, it is better to have a job with a lot of responsibility than one with little responsibility.
8. People who "do things the easy way" are the smart ones.

RESPONSES AND CLASSIFICATIONS TO QUESTIONS ABOUT PRESENT JOB

E - Extrinsic  
 I - Intrinsic  
 U - Unclassifiable  
 NR - No Response

Subject Number	Like Most About the Job	Classification	Dislike Most About the Job	Classification
1	Hours	E	Nothing	U
2	Hours	E	Starting early	E
3	Nothing; driving	I	Carrying can	E
4	Hours	E	Everything; pay	E
5	Like bosses	E	Green can, getting up early	E
6	Easy parts	E	Hours	E
7	Outside work	E	Can't say, but would like it on curb	U
8	Outdoors	E	When people complain; green cans	E
9	Getting off early	E	Getting tired	E
10	Hours	E	Getting up early	E
11	Hours	E	Garbage stinks	E

RESPONSES AND CLASSIFICATIONS--Continued

Subject Number	Like Most About the Job	Classification	Dislike Most About the Job	Classification
12	Working out in open; not having someone on back all the time	E	Nothing really, but would like bags	U
13	Hours	E	Garbage dirty and smelly	E
14	Getting off early; pay	E	Weather; when it rains	E
15	Hours	E	Smelly garbage	E
16	Getting off early	E	Getting up early	E
17	Easy	E	Nothing	U
18	Like it all	U	Nothing	U
19	Getting off early	E	Carrying cans	E
20	Getting off early	E	Not enough money	E
21	Hours	E	Nothing	U
22	Getting off early	E	Odor; garbage spilling	E
23	Nobody to push you around; just like it	I	Nothing	U
24	Hours	E	Nothing	U

RESPONSES AND CLASSIFICATIONS--Continued

Subject Number	Like Most About the Job	Classification	Dislike Most About the Job	Classification
25	Getting off early	E	Hours on bad route	E
26	Easy days	E	Hard days	E
27	Like it all	E	Nothing	U
28	Good exercise	E	Hot sun	E
29	Like supervisors	E	Dirty	E
30	Like it all	U	When people complain and job done well	E
31	Hard job, steady	E	Carrying can	E
32	Pays pretty good	E	Straining to lift cans	E
33	Like hours	E	Nothing	U
34	No boss	I		NR
35	Getting off early	E	Nothing	U
36	Hours	E	Pay	E
37	Easy	E	Nothing	U
38	Like hours	E	Nothing	U

RESPONSES AND CLASSIFICATIONS--Continued

Subject Number	Like Most About the Job	Classification	Dislike Most About the Job	Classification
39	It's a different kind of job	I	Nothing	U
40	Easy work	E	Nothing	U
41	Nothing	U	Nothing	U
42	Nothing	U	Everything; it's the dirtiest job in the world	E
43	Like it all	U	Sometimes lift is too high	E
44	Hours	E	Bad weather	E
45	Hours	E	Bad weather	E

RESPONSES AND CLASSIFICATIONS TO QUESTIONS ABOUT BEST JOB EVER HELD;  
 WORST JOB EVER HELD AND REASON FOR CHOICE

E - Extrinsic  
 I - Intrinsic  
 U - Unclassifiable  
 NR - No Response

Subject Number	Best Job; Why?	Classification	Worst Job; Why?	Classification
1	Ranch; working with cattle	I	None	U
2	Farming; variety, do something different all the time	I	Never had a bad job	NR
3	Solid waste; steady	E	Driving concrete truck; uncomfortable, long hours	E
4	Grounds keeper	NR	Solid waste	NR
5	Helper on dragline; easiest; training skill	I	Hayfield; hot sun; heavy bales	E
6	No answer	NR	No answer	NR
7	This one; better than farming		Farming	NR
8	Gas station attendant; meet people	I	Picking cotton; long hours	E
9	Solid waste; lot of time off	E	Brick-layer's helper; too many hours	E

RESPONSES AND CLASSIFICATIONS--Continued

Subject Number	Best Job; Why?	Classification	Worst Job; Why?	Classification
10	Solid waste; chance to go to school	E	Dock work and ditch digging	NR
11	Machine shop; liked working with machines	I	Gathering eggs; dirty	E
12	Gas station attendant; just liked it	U	Truck stop; didn't like people	E
13	Carpenter's aid; pay	E	Janitor; real filthy restrooms	E
14	Cook's helper; inside; paid more	E	Machines; dangerous	E
15	Service station attendant; money	E	Cook; not enough money	E
16	Construction; more pay	E	Parks Dept.; low pay and cleaning stinking commodes	E
17	Killing beef; more money	E	None	NR
18	Solid waste;	NR	Cotton picking; pay not good	E
19	Solid waste; they don't eat you out or anything; you do your work and that's it	I	Digging ditches for pipe-lines; too dangerous	E

RESPONSES AND CLASSIFICATIONS--Continued

Subject Number	Best Job; Why?	Classification	Worst Job; Why?	Classification
20	Solid waste; just like it	U	Pressman in metal; not much to do	E
21	Solid waste; people & hours	E	Gas station attendant; didn't like people there	E
22	Solid waste; time goes fast	E	Construction; long, hard days	E
23	Solid waste	NR	Pouring concrete; hard job	E
24	Solid waste	NR	Oil field; heavy work	E
25	Mechanic for B. F. Goodrich; liked fellow I worked for	E	Solid waste; route too long	E
26	Laying carpet; paid well and wasn't too hard	E	Hauling sand; hardest	E
27	All jobs the same	NR	Never had a bad one	NR
28	Maintenance for rides at Six Flags	NR	None	NR
29	Stage and lighting TWU; wasn't hard; fair pay	E	Construction work; dirty; long hours	E
30	Assembly line best but didn't like it--watched so closely	E	"When you like job no matter how worse it is."	U

RESPONSES AND CLASSIFICATIONS--Continued

Subject Number	Best Job; Why?	Classification	Worst Job; Why?	Classification
31	All jobs same but never worked steady before this job	U		NR
32	Electrician but didn't like to work in cold refrigeration	I	None never that bad; job is a job	NR
33	Solid waste; better than field work	U	Farm work; too hard, in sun all day; long hours	E
34	Milling; ran mill, swept	U	Digging ditches	NR
35	Army; easy living; made money	E	Haven't had a bad job	NR
36	Solid waste	NR	Mill work	NR
37	Solid waste; easier-this route now	E	3 to 10:00 commercial route in solid waste	E
38	U. S. Army; better pay	E	Ranch; 6½ days, 10 hours a day	E
39	Solid waste	NR	All worse	E
40	Plumbing; know more about it	I	Hauling pulpwood; hard	E
41	General work in lumber yard; better hours & paid every Friday	E	Roofing; tear up clothes	E

RESPONSES AND CLASSIFICATIONS--Continued

Subject Number	Best Job; Why?	Classification	Worst Job; Why?	Classification
42	Solid waste; pay	E	Farming; little or no pay	E
43	NA		NA	
44	Ranch; no work in bad weather	E	Flour mill; too much dust	E
45	Farm; didn't work in bad weather	E	Picking cotton; not enough pay	E

SULLIVAN

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