RESEARCH REPORT

RECRUITMENT, RETENTION, AND UTILIZATION OF PERSONNEL
IN WASTEWATER COLLECTION SYSTEMS IN CITIES AND TOWNS
WITH POPULATIONS UP TO 150,000



Municipal Permits and Operations Division
Office of Water Program Operations
U. S. Environmental Protection Agency
Washington, D. C. 20460



Department of Business Administration North Carolina A&T State University Greensboro, North Carolina 27411

Grant Award No. T-900462-01

July 1974

RESEARCH REPORT

RECRUITMENT, RETENTION, AND UTILIZATION OF PERSONNEL
IN WASTEWATER COLLECTION SYSTEMS IN CITIES AND TOWNS
WITH POPULATIONS UP TO 150,000

Ъy

Katie Avery White
Department of Business Administration
North Carolina A&T State University
Greensboro, North Carolina 27411

for

Municipal Permits and Operations Division Office of Water Program Operations U. S. Environmental Protection Agency Washington, D. C. 20460

Grant Award No. T-900462-01

July 1974

TABLE OF CONTENTS

SECTIO	<u>N</u>	PAGE
List	of Tables and Figures	iii
Ackn	owledgments	iv
ī.	Introduction	1
	Purpose of the Study	3
	Objectives of the Study	3
II.	Summary, Findings, and Recommendations	7
	Summary	7
	Findings	9
	Recommendations	11
III.	Methodology	14
IV.	Recruitment	19
	Overview	19
	The Study Findings	20
	Recommendations	23
٧.	Retention	24
	Overview	24
	The Study Findings	25
	Career Ladders	26
	Promotion	28
	Education and Training	29
	Compensation and Fringe Benefits	30
	Morale	31
	Communication	32
	Absenteeism	34
	Turnover	35
	Recommendations	36
VI.	Utilization	38
	Overview	38
	The Study Findings	38
	Recommendations	40
Apper		
	A. Table 4	41
	B. Table 5	50
	C. Bibliography	60

LIST OF TABLES AND FIGURES

TABLE		Ē	AGE
1	Ten Cities Included in Study	•	5
2	Number of Supervisory and Nonsupervisory Personnel Interviewed	•	6
3	Mission-Oriented Questionnaire Responses	•	17
4	Supervisory Personnel Questionnaire Responses	•	42
5	Nonsupervisory Personnel Questionnaire Responses	•	51
FIGURE			
1	Career Lattice for a Wastewater Collection System	•	27

ACKNOWLEDGMENTS

The writer expresses her sincere appreciation to Robert C. Rose, Chief, State and Local Training Activities Section, Municipal Permits and Operations Division, Office of Water Program Operations, United States Environmental Protection Agency, Washington, D. C., and to Elie Namour, Technical Director of this study and Assistant Professor of Economics, Bentley College, Waltham, Massachusetts, for their extremely helpful suggestions and cooperation.

She also acknowledges the contributions of Sharon A. Spencer and Murli K. Kalro, Research Assistants throughout most of the project period; and colleagues and students who showed interest in the study.

Special appreciation is extended to municipal supervisory and nonsupervisory employees for their patience while being interviewed.

Gratitude is expressed to city managers, water and sewer superintendents,
personnel directors, and other cooperating wastewater officials of the
following cities for granting permission for their municipalities to
be included in the survey: Berkeley, California; Lynn, Massachusetts;
Peabody, Massachusetts; Burlington, North Carolina; Greensboro, North
Carolina; High Point, North Carolina; Reidsville, North Carolina;
Winston-Salem, North Carolina; Martinsville, Virginia; and Roanoke,
Virginia.

I. INTRODUCTION

In recent years, the United States has come to regard water pollution as an urgent national problem. Continued industrialization, increased population, and urbanization have led to the conclusion that the water pollution crisis will become worse unless adequate remedies are taken to alleviate the problem. Meaningful efforts to control water pollution have begun. Wastewater collection systems and treatment facilities are being gradually upgraded to meet the need.

One of the major problems centers around the collection and disposal of waste in such a manner that neither the land nor the water resources will be adversely affected. Internal to this problem in the collection and disposal of waste is the lack of sufficient numbers of well trained manpower. With the recent emphasis on improvements in wastewater collection and the proposed future requirements for more complex and advanced procedures, the short supply of qualified personnel will become even more acute, particularly for the smaller city or town. For example, as a result of water quality requirements imposed by the Federal Water Pollution Control Act Amendments of 1972, higher skilled personnel will be needed for operating and maintaining sanitary sewers, storm sewers and sewage pumping stations, and for conducting inspections. Employees will be required to have a wider variety of skills and will, therefore, be more flexible and selective relative to job opportunities and advancement. Thus, the recruitment,

retention, and utilization of manpower will play an ever increasing role in the control of water pollution.

Human resources are of great value to any organization. Most enterprises have a large proportion of their funds invested in their employees. Successful attempts must be made to develop and utilize these human resources to their fullest extent. Knowledge and skillful application of the fundamental managerial functions of planning, organizing, actuating, and controlling are essential to the achievement of ultimate objectives.

Wastewater collection system managers must have the services of a labor force that has been carefully recruited and developed and one that is being maintained and properly utilized. These operative phases of personnel work involve many detailed tasks. Recruitment, for example, necessitates locating prospective workers, interviewing them, administering any required tests, and hiring selected applicants. Development calls for training and education, morale building, effective communication, promotion and transfer plans, and suggestion systems. Maintenance of the labor force covers those activities which serve to support workers' skills and attitudes, such as adequate wages and working conditions, supervision, grievance procedures, job enrichment, recreational and social programs. Utilization of labor concerns the working effectiveness of the employee in the position he holds through coordination of job descriptions and employee skills.

Purpose of the Study

This particular study is concerned with current personnel management practices in recruitment, retention, and utilization of personnel in wastewater collection systems in cities and towns with populations up to 150,000. The report describes conditions that currently exist in the cities surveyed and offers recommendations for improvement which can be utilized by all cities in this population range.

Initially, the research project was designed to include five (5) cities as a study base; but, because of the importance of the topic, five (5) more cities were added for investigative purposes. Table 1 (Page 5) lists the ten (10) cities. Table 2 (Page 6) shows the number of supervisory and nonsupervisory workers interviewed.

Objectives of the Study

The results of this study are intended to accomplish the following objectives:

- 1. To furnish background information on personnel management for those supervisors who need to know more about the management of human resources.
- To focus attention on the problems of recruitment, retention, and utilization of the labor force in wastewater collection systems.
- 3. To offer recommendations which, if implemented, will enable management:
 - a. To recruit larger numbers of qualified applicants.
 - b. To retain more of those applicants in wastewater collection employment for a longer period than is currently the case.

- c. To use properly the talents of all employees.
- d. To provide opportunities for training and education programs designed to prepare workers for better jobs on the career ladder.
- e. To open lines of communication between supervisory and nonsupervisory personnel.
- f. To boost the morale of the work force.
- g. To create a more favorable work climate that will reduce the causes of high absenteeism and turnover.

TABLE 1
TEN CITIES INCLUDED IN STUDY

CITY	STATE	POPULATION
Berkeley	California	117,000
Lynn	Massachusetts	90,000
Peabody	Massachusetts	48,000
Burlington	North Carolina	36,000
Greensboro	North Carolina	150,000
High Point	North Carolina	63,000
Reidsville	North Carolina	15,000
Winston-Salem	North Carolina	140,000
Martinsville	Virginia	22,000
Roanoke	Virginia	93,000

TABLE 2

NUMBER OF SUPERVISORY AND NONSUPERVISORY PERSONNEL
INTERVIEWED IN TEN CITIES*

CITY	SUPERVISORY PERSONNEL	NONSUPERVISORY PERSONNEL
A	3	14
В	7	28
С	3	15
D	1	10
E	4	46
F	1	10
G	7	5
н	2	2
I	1	3
J		3
	TOTAL 31 ·	136

^{*}Cities have been rearranged and coded alphabetically for reporting purposes.

II. SUMMARY, FINDINGS, AND RECOMMENDATIONS

SUMMARY

A person goes to work. In the United States, this is the normal state of affairs. A man, for example, goes to work because he perceives more advantages for himself if he does so than he would get if he did not work. The rewards for such an endeavor as employment should include (1) money in an amount commensurate with the work that the man does; (2) prestige and respect, consisting of forms of praise and reinforcement for the job that the man does, both from his organization and from his family, serving the purpose of letting the man know that his work is important to the organization and beneficial to society; (3) personal growth, fostered by the exposure to new people and new situations, and to training and educational opportunities in the organization; (4) freedom from the threat of boredom, providing a useful way to fill the hours of the day and making use of the man's full capabilities; (5) identification of his role in society as worker, constructive member of society, taxpayer, and so on. At least this is the way that we commonly expect it to be; and this is the way that it should be for all workers.

The foregoing scenario does not seem to reflect the state of affairs that was found in this study of wastewater collection systems and the personnel employed there. The reasons for this deviation from the norm are important to investigate and remedy, for this concerns not just the wastewater collection of today, but one of the most important weapons in the country's arsenal against pollution both for

today and for tomorrow. Several problems came to light in the course of this survey of ten (10) wastewater collection systems.

One of the major problems is presented by the unfilled job openings, which require that the management devise a successful means of recruiting qualified personnel needed in the organization. Another major problem is caused by the difficulty in holding employees already on the payroll. The retention of workers in the industry is hurt by the same forces that make recruitment such a demanding job. These forces include: (1) the lack of career ladder information for every employee when he begins work; (2) the distasteful nature of the material dealt with in the wastewater collection system; (3) the lack of public esteem for wastewater workers; (4) the low rate of unemployment in the sample cities; (5) the lack of adequate or competitive monetary compensation; and (6) the lack of appeal of wastewater collection work for the well-educated recruit that management needs.

These deficiencies are not overcome by the advantages and benefits of wastewater collection work for the nonsupervisory personnel until they have been on the job for three or more years. By then, the men are older and thus considered less mobile and less likely to be able to start again in another industry. They are also entitled to more of the benefits, including promotions, pay raises, paid vacation, longevity pay, and paid sick leave. Such employees have these and other benefits that provide rewards for a job well done and help to boost their morale.

The nonsupervisory personnel with fewer than three years of experience are less fortunate. The amount of reinforcement that they receive must be supplemented by management. If the morale of the men were kept high, the rates of absenteeism and turnover could be reduced. Preventive maintenance, such as praise for the newer worker, can pay off in less need for emergency measures in the form of massive recruitment drives. An important source of praise and information is the pollution fight. Workers should be made aware of the crucial job that they do for themselves, the organization, and the community as members of a wastewater collection team. They should be placed on jobs for which they are best suited and assigned tasks which clearly indicate that they are being utilized in a meaningful way.

The treatment of the wastes that he creates has been a constant concern of man since the time that he could no longer depend on the earth to provide a convenient dumping ground, and the oceans to provide an unlimited cesspool, for the enormous amount of refuse that threatens to engulf him. It is hoped that this study will serve as an aid in improving present and future operations and the working environment as they relate to the important human resources in wastewater collection systems.

FINDINGS

The most significant findings from this research are as follows:

1. Although supervisory personnel in the cities surveyed say that written career ladders are available, such career information is not available in usable form.

- 2. Unfilled budget positions are due for the most part to
 (1) lack of qualified applicants; (2) apathy or unwillingness of present employees to try to qualify for these
 jobs which would represent upward mobility for them; (3)
 failure on the part of some managements to advertise
 vacancies to current employees and to the general public;
 (4) lack of equipment for some of the positions; and (5)
 the prevailing attitude of some supervisors that the
 unfilled budget positions are "too good" for present employees.
- 3. Instead of matching employees to the positions for which they are hired, based on sound job descriptions and specifications, many supervisors place subordinates on jobs that need to be done without regard to the subordinates' qualifications in some instances; and without regard to the fact that the subordinates may have, during their time of service with the system, acquired skills that would qualify them for much better positions.
- 4. Retention of personnel through promotions is practiced, but not as widely as it should be. Vertical advancement for educationally disadvantaged workers is limited because (1) the nature of a higher job may require a greater degree of formal education or skill than they possess; (2) workers are afraid that higher positions on the career ladder will carry more responsibility than they are willing or able to cope with; or (3) managers are not as alert as they should be in evaluating worker potential and providing that extra "push" that some employees need.
- 5. On-the-job training, when properly planned and executed, is an excellent method of training workers. In most of the wastewater collection systems surveyed, however, on-the-job training is a misnomer. Most of the programs offer instructions for emergency, not preventive, maintenance.
- 6. The greatest problem of turnover in wastewater collection systems lies with new recruits and employees who have been on the job for less than three years.
- 7. Despite their favorable responses to questions concerning morale and job satisfaction, it is obvious that workers are not content with their jobs since they are continuously seeking better ones.
- 8. Not only must the <u>public's</u> view of wastewater collection be changed, but the <u>workers'</u> attitude must be changed also. It order for wastewater collection personnel to develop more appreciation for their jobs, they need to perceive the big picture that surrounds those jobs. The study shows that

workers have insufficient knowledge of their mission as active participants in the war against water pollution—what it is and what is being done to combat it.

RECOMMENDATIONS

The recommendations listed below are not all inclusive. They are suggestive for those systems where problems associated with recruitment, retention, and utilization of wastewater collection personnel are apparent. It is believed that decision makers in each municipality should determine for themselves the procedures that will provide the most satisfactory results for the system and for the personnel.

Recruitment

- 1. The prestige of the job should be raised in order to make potential candidates easier to recruit. This can be accomplished through a massive public relations program which uses the media; simultaneously educating the public while attracting prospective job applicants.
- 2. Wastewater collection recruiters should make public appearances, informing potential candidates of the different benefits and opportunities offered by the system. Public appearances could be made during high school career days and supplemented through recruiting stations, filmstrips, and job information handouts. Satisfied employees can also participate in the recruiting process.
- 3. Job descriptions and specifications should be detailed enough for workers to know what will be expected of them. The description should portray the exact responsibilities, skills, physical requirements and knowledge needed for the successful execution of identified tasks. A complete picture should be presented. For example, the description should tell what the worker does, how he does it, the type of effort required, and the machines, tools and equipment used in performing the duties.

Retention

- 1. Written career ladder information should be available to the work force so they can know the different promotional levels in the wastewater collection system, and what they themselves must do to get promoted. If used objectively, career ladders will help to assure more upward mobility.
- 2. Morale of the work force must be improved. Before each man can become dedicated to his job and to his coworkers, he must have a sense of purpose and confidence in himself. Apparently this has not been attained. Greater efforts must be made to convince employees that their jobs are important to the total organization. This responsibility must be shared by management and the workers. Each man should have the feeling that he is part of a system. Suggestion boxes permit the flow of ideas that some workers may be reluctant to express orally. Lectures, informal discussions, or pep talks by supervisors and top management will be helpful at both the city and state level.
- 3. Employees must be periodically reassured that they are in the right line of work. They applied for the job because they were in need of work. Now that they are with the system, they must be given valid reasons to stay. Their treatment should be better than that of an underdog. More advanced equipment, better working conditions, adequate salary increases and fringe benefits should be supplied.
- 4. Respect from the public is also needed. A public relations campaign would make the public more aware of the pollution crisis and the contribution that wastewater collection workers make in the fight against pollution. Television commercials would help to gain public understanding; showing the workers as ecologists instead of men with dirty jobs.
- 5. A careful study should be conducted at the city, state, and regional levels for the purpose of comparing fringe benefits and salaries in wastewater collection systems. Such a study would show to what extent significant differences exist in pay scales and fringe benefits among cities in the same state, among states in each region, and among regions in the nation. It is expected that significant differences exist.

Utilization

1. Job evaluation is an important factor in any organization. If the employee is not handling his job well, a constructive interview will help to solve the basic problems. During the interview, the worker should be told of his job performance. If he is not doing satisfactory work, he should be told what he needs to do to correct his deficiencies. On the other hand, if he is performing satisfactorily, he needs to be informed that his efforts have not gone unnoticed and that he is an asset to the team.

2. Training should be available to the employees. After they have obtained the job, there should be opportunities for training that will enable them to qualify for further advancement up the career ladder and to gain higher salaries. Training opportunities could be provided on the job, or time could be allotted to the employees to participate in the programs at nearby institutions, both at the high school and at the college level. If the wastewater collection system does not have sufficient funds, men should be encouraged to take courses at their own expense. This will keep the work from growing less interesting to the employees and reduce the turnover rate at the same time.

General

- 1. Orientation or induction sessions should be offered daily during the new recruits' first week at work, in order to introduce the men to their fellow workers and to the job itself. Thereafter, since the turnover rate is high among beginning laborers in wastewater collection systems, a meeting should be held one or two times per month either to voice some of the existing complaints or to serve as a preventive tool. For example, a question-and-answer period affords an opportunity for supervisory and nonsupervisory workers to exchange views, and it permits management and labor to set common goals.
- 2. A large number of the wastewater collection workers are members of minority and other educationally disadvantaged groups. They hold many of the lowest level jobs. To deal effectively with this imbalance, more minority and educationally disadvantaged personnel should be given additional opportunities to qualify for, and to occupy, some of the upper level positions in wastewater collection. These workers must be willing to express their interest in, and their desire to qualify for, advancement.
- 3. Management should do more than it has done in the past to remind all workers that better jobs are available, that the municipality needs them, and that it wants them to advance and remain with the wastewater collection system.

III. METHODOLOGY

Methodology for the project followed accepted personnel guidelines set forth in current literature in the field. The staff formulated two questionnaires—one for supervisory or managerial personnel and one for nonsupervisory personnel. Both questionnaires were designed to elicit a wide range of information on recruitment, retention, and utilization practices in the wastewater collection system. Contacts were made to selected city officials by telephone and by letter for permission to include their municipalities in this project.

Another questionnaire for all personnel consisted of missionoriented questions, and it was used in six (6) of the cities in the
study. If wastewater collection personnel are going to develop more
appreciation for their jobs, they need to know the big picture that
surrounds those jobs. This phase of the study evolved as the staff
researched the water and management literature. To provide further
background, the staff viewed three free-loan films from the National
Audio-Visual Center, Washington, D. C.; namely, (1) The Gifts, (2) A
Question of Values, and (3) The First Pollution.

The question of morale and worker attitude toward the job is interwoven with the ultimate needs to be served and goals to be obtained. Workers say that they consider their jobs important to the total organization, that they understand what they are doing, and that their jobs are meaningful to them. If this be true, then knowledge of their mission as soldiers in the war against water pollution—what it is and what is being done to combat it—should form a basis for workers

to have a better understanding not only of their jobs, but also of their roles in those jobs. The benefits to be derived can affect supervisory and nonsupervisory personnel, plant efficiency, and society in general. Table 3 (Pagel7) reveals responses to some of the mission-oriented questions. These responses indicate that the majority of the workers are not aware of the relationship between their jobs and water pollution control.

The investigators conducted personal interviews with wastewater collection employees in eight (8) cities and used mail questionnaires in two (2) cities. They interviewed personnel at all levels in the organizational structure to determine the types of managerial concepts in operation and the extent to which these concepts are effective in recruiting, retaining, and utilizing the talents of employees. Actual measurement of worker productivity was outside the scope of this project. Table 4 (Appendix A) shows responses from supervisory personnel. Table 5 (Appendix B) lists responses from nonsupervisory personnel. Recommendations have been made for changes, where needed, including career ladder information and personnel evaluation practices.

Although the in-depth interview was not used in all cases, it would have been preferred for all of the cities for the following reasons:

- 1. Mailing questionnaires to respondents does not insure 100 percent response.
- 2. More information can be obtained from the respondents in person than by mail.
- 3. The personal approach also enables investigators to complete the project more nearly on schedule. Responses by mail have a higher probability of being returned late, or not at all.

In order to accomplish the goals set forth in the original project proposal, the following personnel were required:

- 1. Principal Investigator and Project Director
- 2. Technical Director
- 3. Research Assistant (four months full time)
- 4. Research Assistant (four months part time; one month full time)
- 5. Research Assistant (two months full time)
- 6. Secretary (part time)
- 7. Twelve (12) students to assist with interviews on a one-time-only basis

The study started in January, 1974, and was completed in seven months. The data collection period took three months. This included the literature search and the physical acquisition of data. The analysis and compilation phase took two months. Final revisions and presentation covered two months.

TABLE 3

MISSION-ORIENTED QUESTIONNAIRE RESPONSES*

QUESTION	SUPER- VISORY	NON- SUPERVISORY	CONCLUSION
What specific actions are being taken by your agency to overcome water pollution?		,	Most workers do not know what specific water pollution control actions are being taken by their
Checking pipes and lines	7		agency.
Analyses of lake and water streams Additional treatment facilities exist	•	19	agency.
or are planned	10	15	
Don't Know	5	63	
No Response	3	3	
Is the problem of water pollution being dealt with as a problem of the <u>present</u> or of the <u>future</u> ?			Although a large number feel water pollution is being dealt with as a problem of the <u>future</u> , the majority see it being handled as a problem
Present	13	52	of the present.
Future	10	45	of the present.
Both	2	3	
Is it possible for us to have either employment or clean environment, but not both?			Most workers think it is possible to have jobs and clean environment at the same time.
Both	15	59	
One or the other	6	38	
Don't Know	2		
No Response	2	3	

TABLE 3--Continued

QUESTION	SUPER- VISORY	NON- SUPERVISORY	CONCLUSION
Are you aware of any state or federal programs to help solve environmental problems?			Most workers are not aware of state or federal programs to help solve environmental problems.
Yes	13	15	•
No	12	83	
No Response		2	
Have any training programs been established to help employees combat pollution at work and in their communities?			If any training programs have been established, the majority of the workers do not know about them.
Yes	10	15	
No	15	85	

^{*}Responses from 25 Supervisory and 100 Nonsupervisory Interviewees in Cities A, B, C, D, E, F.

IV. RECRUITMENT

OVERVIEW

After a manager has determined the need to fill a vacancy—either because someone has quit or a new position has been created—he must recruit applicants and select a person who possesses the skills and abilities needed for the job. Even though the manager is interested in a person to fill a specific vacancy or a newly created position, it is wise for him to think of hiring the applicant for a career rather than simply filling the specific position.

There are many methods of recruiting applicants and several sources from which applicants may be attracted. Before an organization begins recruiting applicants actively, it must consider the most likely source of the type of worker it needs. Some organizations try to develop new sources, while others simply attempt to be more successful with the sources they have always used.

The most obvious source for non-entry-level jobs is personnel already employed by the organization. This source is used by many; but a large number tend to overlook their nonsupervisory employees, especially for managerial jobs. It stems from the fact that some managers regard their nonsupervisory workers as having no self-motivation and ambition, or as being basically lazy and holding their present jobs only because they must earn a living. Other sources of applicants are considered external to the agency. These may be new entrants to the labor force; unemployed persons; dissatisfied or

underutilized employees; retirees; and others not currently in the work force, such as servicemen or former inmates of correctional institutions.

Methods of recruiting may be either indirect or direct. The most frequently used indirect method of recruiting is advertising in newspapers, journals, magazines, and on radio and television. One of the widely applied direct approaches is the use of recruiters.

Organizations should evaluate their methods of recruiting and their sources of applicants periodically. Persons responsible for recruiting should strive diligently to improve their methods of attracting applicants. They can accomplish this by participating in high school career day programs and by cooperating with various employment agencies in nearby cities and towns. The recruiters should explain job opportunities in wastewater collection systems, and use films, brochures, newspaper, radio, and television commercials to "sell" the wastewater collection system to prospective employees.

THE STUDY FINDINGS

Recruitment is one of the problems confronting wastewater collection systems. Because of the nature of the job and the fact that all budgeted positions have not been filled in some cities in the study, serious burdens have been imposed on management in its attempts to meet employment needs. Unfilled budget positions are due for the most part to (1) lack of qualified applicants; (2) apathy or unwillingness of present employees to try to qualify for these jobs which would represent upward mobility for them; (3) failure on the part of some

managements to advertise vacancies to current employees and to the general public; (4) lack of equipment for some of the positions; and (5) the prevailing attitude of some supervisors that the unfilled budget positions are "too good" for present employees.

While employees should be matched to the job they are hired to do, they should also be informed and encouraged to develop those skills which will enable them to qualify for better jobs. Although both supervisory and nonsupervisory personnel state that this procedure is followed in wastewater collection, prevailing conditions suggest that the opposite is true. In other words, supervisors are concerned with having jobs completed on time, so they assign subordinates to those jobs that need to be done without regard to qualifications in every instance; and without regard to the fact that the subordinate may have, during his time of service with the system, acquired skills that would qualify him for a much better position.

Job descriptions and specifications, though inadequate and too general in most cases, have been prepared. The purpose of job descriptions is to describe the responsibilities, skills, and knowledge a worker needs for the successful execution of all tasks assigned to him. These descriptions also include information on aptitudes, interests, temperament, physical demands, and working conditions. Such tools can aid management in recruiting the best available candidate for the vacancy that exists, and they can be used in promoting current employees. Job descriptions and specifications must not be used by management to the disadvantage of present workers.

Wastewater collection systems use a number of recruitment techniques which are in keeping with modern personnel approaches. Interviewing, testing, letters of recommendation, brochures, and policy manuals are used in varying degrees. The personnel departments do some recruiting by displaying posters that announce job openings or promotion opportunities. However, their efforts through these means do not meet with much success. Because of this lack of success with recruitment, management is receptive to any potential candidate. Lower level jobs are often filled by individuals who walk in and request employment, or by friends or relatives brought in by current employees. Yet, this approach, easy though it is, does not remove the problems of recruitment in wastewater collection.

Another factor contributing to the recruitment problem is the generally low unemployment prevailing in the regions surveyed. In City B, for example, the unemployment rate is only 1.5 to 2 percent. These figures indicate that potential candidates for employment at a wastewater collection system can also find work elsewhere. Until the prestige of the job is raised and the public view—that employees at such a system are as undesirable as the substance with which they deal—is changed, potential long—term employees will continue to be difficult to recruit. This is true because prospective and current employees are attracted to higher paying jobs in the construction industry or to positions in such utility organizations as gas, water, electric, and telephone, which have more prestige than low—level jobs in wastewater collection systems. The same program of recruitment, morale boosters, and public information programs will increase public esteem.

RECOMMENDATIONS

Recruitment

- 1. The prestige of the job should be raised in order to make potential candidates easier to recruit. This can be accomplished through a massive public relations program which uses the media; simultaneously educating the public while attracting prospective job applicants.
- 2. Wastewater collection recruiters should make public appearances, informing potential candidates of the different benefits and opportunities offered by the system. Public appearances could be made during high school career days and supplemented through recruiting stations, filmstrips, and job information handouts. Satisfied employees can also participate in the recruiting process.
- 3. Job descriptions and specifications should be detailed enough for workers to know what will be expected of them. The description should portray the exact responsibilities, skills, physical requirements and knowledge needed for the successful execution of identified tasks. A complete picture should be presented. For example, the description should tell what the worker does, how he does it, the type of effort required, and the machines, tools and equipment used in performing the duties.

V. RETENTION

OVERVIEW

Retaining workers on the job covers those activities which serve to support their skills and attitudes, such as adequate wages and working conditions, supervision, grievance procedures, job enrichment, job enlargement, recreational and social programs. Job performance is dependent not only upon the abilities and skills of employees but also upon their motivation.

An understanding of the motivational process, including a recognition of the needs that individuals have, is essential for effective personnel management. Through an understanding of needs, it is possible to determine the incentives that should be used and the proper motivational climate that should be attained. While each worker has his own need pattern, managers must have a general understanding of some of the possible causes of frustration. Some of the causes may include (1) inadequate pay, (2) changing technology, (3) changing working conditions, (4) insignificance of the job, (5) lack of status, prestige, or recognition, and (6) unfulfilled expectations on the part of the employees. In wastewater collection systems, changing technology is not yet a source of frustration because technology, a relatively recent addition, makes the job more interesting and gives some workers a feeling of being skilled.

One classification of needs that is widely accepted comes from the late A. H. Maslow, 1 a psychologist who developed a hierarchy of human

¹A. H. Maslow, <u>Motivation and Personality</u>, 2nd ed. (New York: Harper and Brothers, 1970), pp. 35-58.

motivation. He classifies human needs into five categories; namely,

- (1) the physiological needs--food, water, air, rest, and the like;
- (2) the safety needs--physical and psychological safety and security;
- (3) the belongingness and love needs—attention, social activity and affectionate relationships; (4) the esteem needs—the desire for self-respect, achievement, reputation, prestige, or respect from other people; and (5) the need for self-actualization or self-realization—desire for self-fulfillment or to become everything that one is capable of becoming.

An employee's retention is dependent upon his satisfaction with work on the present job, pay for the job, fringe benefits, fairness in opportunities for promotion, training and educational provisions, supervisors on the job, and interpersonal and group relations with other members of the labor force. Effective channels of communication and grievance procedures are essential for a smooth running organizational structure.

THE STUDY FINDINGS

Retention of employees is another major problem in wastewater collection systems. The current low unemployment rate, that creates such a problem in recruitment, plays a disastrous role in retention also. Anyone interested in a job is hired to occupy employment vacancies that exist. Since unemployment is low, the number of persons available for employment is correspondingly low. The lack or reduction of preventive maintenance and the overwork of the men, coupled with whatever success can be achieved in the recruitment of

replacement workers, absolve management of some of the worry of worker turnover. This does not, however, free management of its responsibility to find solutions to the problem.

Career Ladders

Although written career ladder information is claimed to be available by supervisory personnel, it is not available in usable form in most of the cities surveyed. This is a management shortcoming. Every individual on any job should have written information presented to him, outlining all of the promotions for which he may qualify. If a worker cannot read well, but can do an effective job otherwise, someone in authority should read and explain the information to the worker, making certain that he understands it. Such information serves as a stimulus towards retention of the work force.

The Career Lattice for a Wastewater Collection System by Namour, 2 shown in Figure 1, is an example of the type of job mobility about which potential and current employees should be informed. While all of these positions are not found in every wastewater collection system, because of the size of the various systems, cities, and towns, they can serve as guidelines for the development of adequate career ladder diagrams.

Elie Namour, Manpower Requirements for Wastewater Collection

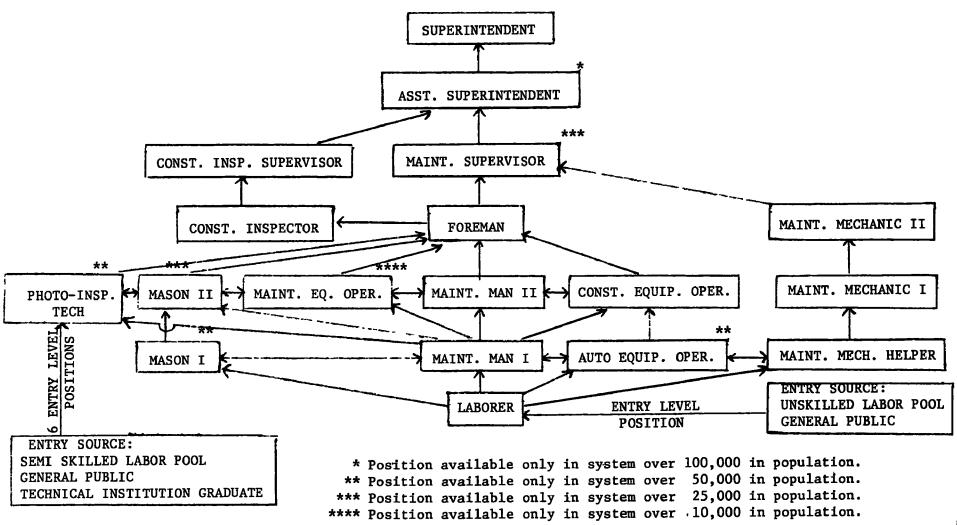
Systems in Cities and Towns up to 150,000 in Population (Washington,

D. C.: Manpower Development Staff, Office of Water Program Operations,

U. S. Environmental Protection Agency, June, 1973), p. 27.

FIGURE 1

CAREER LATTICE FOR A WASTEWATER COLLECTION SYSTEM



Source: Elie Namour, Manpower Requirements for Wastewater Collection Systems, p. 27.

Promotion

Retention of personnel through promotions is practiced, but not as widely as it should be. Whenever possible, individuals are advanced along the career ladder vertically and laterally. For many of the educationally disadvantaged workers, however, vertical advancement is limited because (1) the nature of a higher job may require a greater degree of formal education or skill than these employees possess; (2) workers are afraid that the higher position will have more responsibility than they are willing or able to cope with; or (3) managers are not as alert as they should be in evaluating worker potential and providing that extra "push" that some workers This presents a challenge to wastewater collection system management and to disadvantaged workers, which both groups should accept. The challenge to management is that it must provide educational and skill development opportunities as well as encouragement to employees. The challenge to workers is that they must overcome fear and take advantage of all opportunities--those financed by the wastewater collection system and those which they may have to pay for themselves.

Workers feel that a promotional policy exists and that there are opportunities for advancement. Except for City E, a majority of the workers have had at least one promotion; some of them have had up to three promotions. Promotions are primarily based upon merit. Other things being equal, seniority is taken into consideration. This is another mechanism of retention which applies to most members of the

wastewater collection team except the new workers who have been on the job for less than three years.

Posters announcing job openings which explain in detail the education and training needed by an applicant to qualify for the job and give the salary for the position, serve as aids in the retention of workers. The practice of keeping employees informed also indicates that workers have the chance to seek promotion to the managerial level in the organization, when qualified in terms of education and training. In City B, the Superintendent of Pipes has gradually risen from the lowest rung on the career ladder to his present position. It must be stated, however, that there are not enough examples of this success story.

Education and Training

Employees are trained on the job. When properly planned and executed, this is an excellent method of training a worker. In the case of wastewater collection systems, however, the purpose is sabotaged by the negative attitude exhibited toward it by the laborer. One explanation for this attitude is that on-the-job training is a misnomer in wastewater collection systems. Few serious training programs are offered. Most programs involve instructions for emergency, not preventive, maintenance.

In the survey, however, the workers say they are interested in enrolling in educational or training programs in order to qualify for advanced positions. A move in this direction by a worker could help to alleviate the problem of retention faced by management. By

improving his own mental prowess and by investing time (and perhaps money) in upgrading his ability to do his job, an employee would be more likely to stay on the job to see his labor bear fruit in the form of promotions and pay raises.

Compensation and Fringe Benefits

Another incentive aiding in the retention of workers is an increase in wages. Although this is a short-term gain, it is more tangible than many of the fringe benefits; and as such, it is very meaningful to the personnel involved in wastewater collection. Like promotions, this mechanism of retention does not operate well for the new recruit. Perhaps if the new worker were given smaller raises at more frequent intervals, he would receive reinforcement for proper employee behavior, and he would be more inclined to stay on the job until eligible for some of the fringe benefits.

Inadequate compensation is certainly a big factor in the problem of retention in wastewater collection. Sixteen supervisors in the study say compensation is adequate; fifteen say it is inadequate. Supervisory personnel admit, however, that if it were not for the poor rate of compensation, the incidence of excessive turnover would be greatly reduced. They also indicate that the wage structures in wastewater collection systems are competitive with those of similar agencies within their respective states and regions. The same individuals feel that wages are low, when compared with other industries; thus contributing to the high turnover rate. This contention of supervisory personnel is supported by the nonsupervisory workers, who

say that many of their coworkers quit their jobs because of inadequate monetary rewards and dirty or undesirable working conditions.

Factors that play an important role in retention, and which are weighed very heavily by an employee when accepting a job, are the number, kind, and timing of fringe benefits he can receive. These benefits serve as a redeeming feature of the personnel program in wastewater collection systems. A list of the fringe benefits includes: health and life insurance, retirement, paid vacations, paid holidays, longevity pay, uniforms, fees for education, paid sick leave, jury leave, credit unions, laundry services, and rain apparel.

Unfortunately, the fringe benefits do not help as they would be expected to do in the retention of employees in wastewater collection systems. There are employees who are of the opinion that health (hospital and casualty) insurance, one of the benefits, is inadequate. Except for this complaint, the overall benefits seem to satisfy the workers; but only after they have been on the job from three to five years do the benefits appear to have a major influence on retention.

Morale

Morale has many different connotations. As seen by McFarland, 3 morale is a state of balance and health within an organization in which those who take part in it view the total situation with favorable attitudes. McFarland further suggests that the executive needs to recognize his own influence on the patterns of morale prevailing in the group, or a significant part of the group, with which he is working.

³Dalton E. McFarland, <u>Management Principles and Practices</u>, 3rd ed. (New York: The Macmillan Company, 1970), p. 514.

Haimann and Scott⁴ view morale as a group feeling which results in intense goal-directed effort. This feeling is caused by the perception of group members that share to a high degree similar values about the accomplishment of a worthwhile objective.

The majority of supervisory and nonsupervisory personnel in the study say morale of the work force is very good. The incidences of absenteeism, turnover of laborers, and poor working conditions, among others, do not coincide with their glowing responses. Individual goals should not be submerged in favor of organizational goals. Rather, organizational goals and individual goals should harmonize. This approach would result in the worker's receiving satisfaction as a member of the wastewater collection team.

Morale, absenteeism, and turnover are interdependent. As long as employees know that they are needed, respected, and feel that their grievances receive a fair hearing, they have more job satisfaction. It is important, therefore, for supervisors to provide recognition and praise to wastewater collection system personnel for their worthwhile accomplishments—not only because the job has to be done, but also because the workers have chosen to remain on the job.

Communication

If one accepts the opinions of the interviewees, one gets the impression that many of the workers are operating in a team-like fashion, offering suggestions and ideas to supervisors and to fellow

⁴Theo Haimann and William G. Scott, <u>Management in the Modern</u> <u>Organization</u> (Boston: Houghton Mifflin Company, 1970), pp. 417-418.

workers. If true, this would indicate a wholesome work environment.

Most men say that communication between supervisory and nonsupervisory workers is flexible. This, too, is open to question because some of the nonsupervisory interviewees (1) were reluctant to answer questions;

(2) spoke in low tones that were almost inaudible to the interviewers because they did not want even their coworkers to hear them; or (3) wanted to know if their responses would be reported to their supervisors.

To the question, "Do you completely enjoy your work?", the workers respond in the affirmative. For the questions, "Are the rules too strict for you to do your job as you think you should?" and "If the choice were yours to make, would you want to change supervisors?", the majority reply in the negative. The workers also indicate that they consider their jobs to be important to the total organization. It is apparent that these are not completely candid responses and that the men feel that their truthful replies may get them into trouble with the supervisors. Despite the favorable responses, it is obvious that workers are not content with their jobs since they are continuously seeking better jobs.

In order to improve the retention of wastewater collection workers, it is essential to determine the basic causes of the problem. The overriding concerns seem to center around the need for better working conditions, more advanced equipment, an increase in pay commensurate with services rendered, more respect from the public, and expanded hospitalization benefits. These are the most prevalent reasons cited for men leaving their jobs. Open channels of communication between supervisory and nonsupervisory personnel enable management to

find out other reasons as well as what is needed to accomplish the goals of the organization without neglecting the goals of those individuals who labor in that organization.

Absenteeism

Investigation of the subject of absenteeism reveals that management, except in Cities E and G, feels that absenteeism is low. Low absenteeism has been defined, for the purpose of this study, as the absence of an employee from his job an average of once a week or less. Various factors are listed by the supervisory personnel for the low incidence of absenteeism such as interest in the job, the need of the worker to earn a living, good supervision, and working environment. In the cases in which high absenteeism is mentioned by supervisory personnel, the most common cause is hangover. Other reasons listed are: the dirtiness of the work, the laziness of workers, the attempt by the workers to use their sick leave up as soon as possible, and calling in ill while actually looking for another job.

Nonsupervisory personnel advance different reasons for their absenteeism which according to most of them also is low. The reasons are sickness, personal business, hunting for better jobs, and hangovers. Nonsupervisory workers who say absenteeism is high attribute such absences to Monday morning headaches, the need for a longer weekend, the need for a more exciting job, personal business, or just being tired of doing the same type of work day after day.

Turnover

When a position is filled, it does not remain so for long. The recruited individual is constantly hunting for a more lucrative job.

Once he can locate one that will increase his prestige, personal utility, and monetary benefits, he leaves wastewater collection. The long-term benefits to be derived from remaining in wastewater collection are satisfactory, but very few of the new recruits are able to grasp the promise of the benefits of the future as an incentive to continue the work of today.

In regard to the retention of a work force of an organization, a natural question arises, "Is the turnover rate a normal one for the industry?" This question receives both affirmative and negative answers in wastewater systems surveyed. Such a dichotomy exists because of the apparent split in the work force along the seniority boundary. Individuals who have been on the job for three to five years or more are considered relatively permanent members of the work force. Because of this, the high turnover rate seen in many of the cities is not typical of their situation. In Cities B and G, the turnover rate is 100 percent or above. It is typical, however, of the situation of the new recruit. Those who have been members of the work force for fewer than three years are relatively unstable; this group is the primary cause of the high turnover rate in the industry. The old workers stay because they are receiving the pay raises and the fringe benefits; the young ones leave because they do not as yet have the seniority to receive adequate compensation. If workers do not

feel trapped and unsatisfied, the turnover rate for the wastewater collection system should be lower than it is today.

Emphasis has been placed on the status of new employees because the people who have been on the force for three to five years and above are those who may have made their decision to remain in wastewater collection work as a lifetime career. New recruits, therefore, pose a larger problem in terms of retention. This is not to say that nothing should be done for the retention of the older worker; it is to say that any mechanisms instituted for the purpose of retaining new workers would also aid in the retention of all workers, including the older ones.

RECOMMENDATIONS

Retention

- Written career ladder information should be available to the work force so they can know the different promotional levels in the wastewater collection system, and what they themselves must do to get promoted. If used objectively, career ladders will help to assure more upward mobility.
- 2. Morale of the work force must be improved. Before each man can become dedicated to his job and to his coworkers, he must have a sense of purpose and confidence in himself. Apparently this has not been attained. Greater efforts must be made to convince employees that their jobs are important to the total organization. This responsibility must be shared by management and the workers. Each man should have the feeling that

- he is part of a system. Suggestion boxes permit the flow of ideas that some workers may be reluctant to express orally. Lectures, informal discussions, or pep talks by supervisors and top management will be helpful at both the city and state level.
- 3. Employees must be periodically reassured that they are in the right line of work. They applied for the job because they were in need of work. Now that they are with the system, they must be given valid reasons to stay. Their treatment should be better than that of an underdog. More advanced equipment, better working conditions, adequate salary increases and fringe benefits should be supplied.
- 4. Respect from the public is also needed. A public relations campaign would make the public more aware of the pollution crisis and the contribution that wastewater collection workers make in the fight against pollution. Television commercials would help to gain public understanding; showing the workers as ecologists instead of men with dirty jobs.
- 5. A careful study should be conducted at the city, state, and regional levels for the purpose of comparing fringe benefits and salaries in wastewater collection systems. Such a study would show to what extent significant differences exist in pay scales and fringe benefits among cities in the same state, among states in each region, and among regions in the nation. It is expected that significant differences exist.

VI. UTILIZATION

OVERVIEW

Utilization is concerned with the working effectiveness of the employees. It may involve such areas as job descriptions, job specifications, job placement, job evaluation, morale, communication, motivation, discipline, grievances, salary, health service, and programs of safety, recreation, social, and athletic activities.

Transfers and promotions assist an organization in increasing its effectiveness and in attaining its service and profit objectives. When an employee is placed in a position in which he can be more productive, chances for successful results by the organization for which he works are increased also. It should be the goal of every agency, therefore, to transfer or promote employees as soon as their capabilities increase and job opportunities become available.

Further, it is important that workers be given the opportunity to undertake challenging assignments or tasks with added responsibility. "How are the workers being used?" and "Are they assigned to jobs that they can do best?" are among the questions that should receive careful answers.

THE STUDY FINDINGS

There is a shortage of qualified personnel in wastewater collection systems. Additional men must be introduced into the system, or trained from within the ranks, so that municipalities can be prepared for more advanced procedures of wastewater collection that

will deal not only with <u>reacting</u> to emergencies, but the means for <u>acting</u> in a positive way on decisions relative to preventive maintenance. This has not yet been accomplished in all of the cities surveyed.

Some of the budgeted positions have not been filled. Thus, the possibility exists that the work force is overworked; that management does not do all it can to encourage the promotability of the men already in the wastewater collection system into higher positions on the career ladder; and that the training of current employees suffers in some systems.

Most of the personnel interviewed, both supervisory and nonsupervisory, feel that they are assigned to jobs that they can do best.
They also say that they are being utilized effectively and are able
to complete their tasks quickly and efficiently. In reality, however,
this is not true of all systems. Workers are assigned where they are
needed and not always on the basis of the job for which they are best
qualified. The size of a work crew is determined only partially by
the nature of the job to be done. Because of the complexity or
frequency of the assignments, a number of workers express the opinion
that the size of the total labor force needs to be increased.

Supervisory personnel hold the view that the utilization of the work force could be improved if better training were used and better educated people were hired. These moves would have the result of enabling employees to achieve higher motivation and morale, increased productivity, better wages, and higher positions. It is reassuring, however, to hear some supervisors express interest in finding ways to

utilize the workers more effectively. Considering the problems of recruitment and retention, the area of utilization of personnel in wastewater collection systems needs additional study.

RECOMMENDATIONS

Utilization

- 1. Job evaluation is an important factor in any organization.

 If the employee is not handling his job well, a constructive interview will help to solve the basic problems. During the interview, the worker should be told of his job performance.

 If he is not doing satisfactory work, he should be told what he needs to do to correct his deficiencies. On the other hand, if he is performing satisfactorily, he needs to be informed that his efforts have not gone unnoticed and that he is an asset to the team.
- 2. Training should be available to the employees. After they have obtained the job, there should be opportunities for training that will enable them to qualify for further advancement up the career ladder and to gain higher salaries. Training opportunities could be provided on the job, or time could be allotted to the employees to participate in the programs at nearby institutions, both at the high school and at the college level. If the wastewater collection system does not have sufficient funds, men should be encouraged to take courses at their own expense. This will keep the work from growing less interesting to the employees and reduce the turnover rate at the same time.

APPENDIXA

SUPERVISORY PERSONNEL QUESTIONNAIRE RESPONSES RECRUITMENT, RETENTION AND UTILIZATION

TABLE 4
SUPERVISORY PERSONNEL QUESTIONNAIRE RESPONSES RECRUITMENT, RETENTION AND UTILIZATION

CITIES	A	В	С	D	E	F	G	H	I	J	TOTAL
RECRUITMENT PRACTICES										-	
What are your recruitment sources?										_	
Within department		5	3	1	3	1	 				14
Personnel department of city	2	7	3	1	4		7			1	25
Agencies		2	1								3
Other: Word of mouth	1	3	3								7
Civil Service								2	<u> </u>		3
Newspaper			2								2
Have job descriptions been											
prepared for the employees											
of your department?											
	3	7	3	7	4	1	5	2	1	2	29
Yes No		· '					2				2
NO											
What criteria do you use to											
determine the size, number											
and type of crews you need?											
Nature of job	3	7	3	1	4	1	2	2	1	1	25
Equipment to be used	3	4	2		4			2	1		16
No response							5			1	6
no response											
What recruiting methods are used?									_	_	
Interviews	3	7	3	1	4	1	7	2	1	2	31
Testing		1	3							2	6
Letters of Recommendation	1	1	2	1		1					6
Brochures		1	2								3
Policy Manuals		2	1	1							

TABLE 4--Continued

CITIES	A	В	С	D	E	F	G	Н	I	J	TOTAL
√hich do you consider most								•			
effective?									_	-	
Interviews	2		3	<u> </u>	4	1	4	2			26
Testing									1	2	4
Policy Manuals							2				
RETENTION											
Compensation:											
Are the workers being											
adequately compensated?									_	_	
Yes	3	5		1	4				1	2	16
No		2	3			1	7	2			15
Are salary scales competitive with similar agencies in this state? Yes No	3	7	2	1	4	1	7	2	11	2	23 8
NO Are salary scales competitive with											
similar agencies in this region?											
Yes	3	7	1	1	4	1		2	1	2	22
No			2				7				9
Are the workers aware of salary											
minimums and maximums?						_	_		_	_	20
Yes	3_	7	3	1	4	1	6	2		2	30
No						- 	1				1
Do they know what they must do											
to get a raise?	_	_			,	•	-	2	1	2	30
Yes	3	7_,	3	L	4		$\frac{6}{1}$	2			30

TABLE 4--Continued

									_		
CITIES	A	В	С	D	Е	F	G	Н	I	J	TOTAL
What are some of the fringe											
benefits received?	_	-	•		,	•	2	2	•	2	27
Insurance (Health and/or Life)	3		3		4		3	2		2	27
Retirement	3_	66	3		4	1	2				19_
Vacations		7	3	1	4	1		1			17
Paid holidays	3	6	2	1	4	1					17
Longevity Pay	3		3		4						10
Uniforms	2	4	3		4						13
Education Reimbursement	1	3	3		4						11 23 5
Sick Leave	3	7	3	1	4	1	2	1	1		23_
Others		4	1								5
Do you have a promotion policy? Yes	2	7	3	1	4	1	4	2		2	26
No							3		1		4_
If so, is it a written one?											
Yes	2	4	3	1	3_		2	2		1	18
No		3			1	1	2			1	8
No response							3		1		4
Do you have written career-											
ladder information?											
Yes	2	6	3	1	3		2	2		1	20
No	<u>_</u>	1				1			1	_	11
NO										 _	

TABLE 4--Continued

CITIES	A	В	С	D	E	F	G	H	I	J	TOTAL
Are workers aware of job											
advancement chances?						_	_	_	-	•	27
Yes	3	7	3	1	4	1	3	2	1	2	27_
No							4				4
Do they know what training or											
educational requirements they											
must satisfy to qualify for a											
better job?			_	_		_	•	•	1	2	25
Yes	2	7	3	1	4	1	2	2			<u></u>
No							5				<u></u>
Don't know	1										
Do you have any training and/or educational programs to prepare workers for advancement on the job?		7	3	11			1	2		2	16 12
No					4	<u> </u>	6				12
No response	3										3_
Are workers promoted to the managerial level?							_	_	_	•	24
Yes	3	7_	3	1	3	1	1	2	1	2	24
No					1		6		 	<u> </u>	/
Are they aware that they can											
advance to the managerial level?				_		_		^	-	2	27
Yes	2	7	3	1	4	1	<u></u>	2		2	24
No							6				0

TABLE 4--Continued

CITIES	A	В	С	D	E	F	G	H	I	J	TOTAL
Do you consider seniority											
for promotions?					_	_		_	_		00
Yes	3	7	3	1	4	1		2	1		22
No										2	9
Do you consider merit for											
promotions?									_	_	•
Yes	3	7	3	1	4	1_	1	2	1	1	24
No							6		<u> </u>	1	
Morale, Absenteeism and Turnover:											
Do open lines of communication											
exist between management and											
the work force?											
Yes	3	7	3	1	4	1	_3_	2	1	2	27
No							4				4
Do workers feel that their jobs											
are important to the total											
organization?											
Yes	2	7	3	1	3	1	7	1		2	27
No					1			1_			2
Don't know	1								1		2
How do you rate the morale of the											
work force?											
Excellent	2	2	1	1	1						7
Good	$\frac{2}{1}$	5	$\frac{1}{1}$		2	1		1	1	1	13
Fair					1		5	1		<u></u>	9
Poor											2

TABLE 4--Continued

CITIES	A	В	C	D	E	F	G	н	I	J	TOTAL
Absenteeism of workers is	·····							•		1	16
High	·	2	2		4				 1	<u>+</u>	15
Low	3	5	1	1		1		<u></u>			
What are some reasons for high											
absenteeism?		_	•								4
Monday morning		2	2					1			4
Sickness					3						2
Use up sick leave as fast as pos	sible				2			1			ī
Workers lazy							2				2
After-effects of payday											3
Dirty work		1								1	
No response							4				
What are some reasons for low abse						1	1				6
Interest in job	1	<u>3</u>									2
Morale high	 										3
Workers have to earn living	1	1		1_							2 3 3
Fear of losing job	1	2									1
Good supervision	11									ī	1
Sick leave policy			1 -		,- -			1			
					4			<u>-</u> _			
No answer											
No answer											
No answer What is the turnover rate of the							2		1*		6
No answer What is the turnover rate of the volume 0 - 20%	work force	e? 2	<u> </u>		<u>1</u>		2		1*	_,	6 2
No answer What is the turnover rate of the $\frac{0-20\%}{21-40\%}$					1 3		2		1*	1	6 2 4
No answer What is the turnover rate of the volume $\frac{0-20\%}{21-40\%}$ $\frac{21-40\%}{41-60\%}$					1 3		2		1*	1 1	2
No answer What is the turnover rate of the volume $0 - 20\%$ $\frac{21 - 40\%}{41 - 60\%}$ $\frac{61 - 80\%}{61 - 80\%}$		2	3		1 3		1		1*	1 1	2
No answer What is the turnover rate of the volume $\frac{0-20\%}{21-40\%}$ $\frac{21-40\%}{41-60\%}$				1**		1	2 1 2 2	2	1*	1 1	2

^{*} Practically Nil
** Very Low

TABLE 4--Continued

CITIES	A	В	С	D	E	F	G	H	I	J	TOTAL
If turnover rate is high, what											
are some reasons?											_
Type of work		2	1		4		1				8
Hard work		1			2		1				4_
Pay is low		4	1				11			1	
Workers lazy and don't want to work								1_			1
Others		2		11		1	1				5
How does the turnover rate in your department compare with that of 1 or 2 years ago? Increased		1		1	2		3			1	8_
Decreased	3		1		1	1	4				15
Same			<u>-</u>		1		·····	2	1		5
Don't know		1	1								2
No response										11	1
UTILIZATION AND SIZE OF WORK FORCE											
Are the workers being utilized											
effectively?							_	_		•	00
Yes	3	7	3	1	4	1	6	1_		22	28
No							1	1	1		3

TABLE 4--Continued

CITIES	A	В	С	D	E	F	G	н	I	J	TOTAL
Recommend ways to improve									_		-
utilization of the work force.											
More training	2	7			3_		1				13
Better educated people are needed.		1			1		1				3
Better equipment	2	1			1		1				_5
More supervision needed									1		1
No response			3	1		1	5			2	12 2
Others								2			2
Are workers assigned to jobs that they can do best? Yes No	3	7	3	1	4	11	<u>6</u>	2	1	2	30
If yes, how? Trial and error	3	7	3	1	3	1	2	2	1	1	24_
No response			·				4				4
If you feel the work force should											
be increased, list reasons.		2	2		1						5
Budgeted positions unfilled			2				2	2			- 6
Heavy workload							2				2
Expansion of sewer systems											
Increase service to public											<u>_</u>
No response	3			1		1					

APPENDIX B

NONSUPERVISORY PERSONNEL QUESTIONNAIRE RESPONSES RECRUITMENT, RETENTION AND UTILIZATION

TABLE 5

NONSUPERVISORY PERSONNEL QUESTIONNAIRE RESPONSES RECRUITMENT, RETENTION AND UTILIZATION

CITIES	A	В	С	D	Е	F	G	Н	I	J	TOTAL
RECRUITMENT PRACTICES											
How were you hired for this job?											
Applied for it	12	26	15_	10	44_	10	5		1	3	126
Through a friend	2	2			2				1		7
Civil Service								2	1		3
What methods were used?											
Interviews	14	28	15	10	46	10	5	2	3	3	136
Testing			9		2					3	14
Letters of Recommendation		5	2		1	1				•	9
Policy Manuals							1				1
Did you have special training for first job here? Yes	2	9	3	2	7		5				28_
No	12	19	12	8	39	10		2	3	3	108
RETENTION											
Compensation: Do you feel that your salary is											
adequate for the duties you											
perform?								_		_	
Yes	5	8	3		7			1		1	25
No	9	20	12	10	39	10	5	1	3	2	111

TABLE 5--Continued

CITIES	A	В	С	D	E	F	G	Н	I	J	TOTAL
Do you know what others here									•		
are making for the same job you											
are doing?											
Yes	0	7	5	3	13	3	3	2	3	3	42
No	14	21	10	7	33	7	2				94
Do you know what other workers	•	•									
in this state are making for the											
same job you are doing?											
Yes	1	2	1		4		2	1	2	3	16
No	13	26	14	10	42	10	3	1	1		120
Are your fringe benefits											
adequate?											
Yes	14	25	14	5	35	5	1		3	1	103
No		3	1	5	11	5	4	2		2	33
Promotion:											
Do you feel that a promotional											
policy exists here?											
Yes	12	22	13	8	39	3	5	2		3	107
No	$\frac{1}{1}$	5	2		- 35	6			3		25
No response or don't know	-	1				- <u>i</u> -					4
110 1 COPONDE OF CON C MICH											··

TABLE 5--Continued

CITIES	A	В	С	D	E	F	G	Н	I	J	TOTAL
Are there ample opportunities	- .										
to advance?											
Yes	13	25	13	5 _	37	1	2	2	_	3	101
No	1	3	2	4	8	9	3		3		33
No response				1	1						2
Have any of your coworkers been											
promoted to higher positions?											
Yes	12	22	12	5	29	4	3	2_		2	91
No	2	6	3	4	16	6	2		3	1	43
No response				1	1_				<u> </u>		2
Were outsiders brought in for											
the jobs that should have gone											
to you or your coworkers?											
Yes	4	6	2		6		2		1		21
No	10	22	13	9	30	10	3	2	2	3	104
No response				1		·					1
Since working on this job, have											
you been offered any training											
for skill improvement?											
Yes	6	11	7	3	15	1		2	1	3	49
No	8	17	8	7	31	9	5		2		87
Have you had the same job since											
you have been here?											
Yes	6	9	4	6	25	3					53
No	8	19	11	4	21	7	5	2	3	3	83

TABLE 5--Continued

CITIES	A	В	С	D	E	F	G	H	I	J_	TOTAL
How many times have you								•			
had a promotion here?											
One	4	14	5	3	14	4	4	1_	2		51
Two	2	3	2	1	5	1			1		15
Three	3	3	4		2	2	1	1		3	19 49
None	3	8	4	6	25	3					49
Do you know what you need											
to do for a promotion?											
Yes	9	24	13	4	33	2	1	2	3	3	94
No	5	4	2	6	13	8	4				42
Are you interested in moving											
to a higher position?											
Yes	10	22	11	6	42	4	5	1	3	3_	107
No	4	6	4	4	4	6		1			29
Would you be willing to enroll											
in training or educational											
programs to qualify for											
advancement?											
Yes	11	21	12	7	42	7	5	2	3	3	113
No	2	7	2	3	4	3					21
No response	1		1								2

TABLE 5--Continued

J TOTAL 2 128 1 8 3 130 6
1 8
1 8
1 8
3 130 6
3 130
6_
. 12/
3 134
3 131
5
17
3 119.
1 9
2 126
1

TABLE 5--Continued

CITIES	A	В	С	D	E	F	G	H	I	J	TOTAL
Can you perform to the best of						_				,	
your ability?											
Yes	14	27	15	_10	46	10	5	2	3	2	134
No		1									1
No response										1	1
If you had any ideas or suggestions											
to offer your present supervisor,											
would he permit you to express them?											
Yes	14	28	15	10	38	8	3	2	3	3	124
No					8	2	2				12
											
Do you consider yourself to be											
trapped in a routine, unsatisfying											
and dull job with no way up and no											
way out?											
Yes	3	1	1		6	2	2				15
No	11	27	14	10	40	8	3	2	3	3	121
											
How long have you been on this job?											
Less than 1 year		8	1	6	10	11					26
1 - 3 years	3	2	1		6		3			1	16
3 - 5 years	4	3	1		6	1	1			1	_ 17
5 - 10 years	2	12	6		18	3			1		42
More than 10 years	5	3	6	4	6	5		2	2	1	34
	_										
Are most of your coworkers content											
with the job?											
Yes	14	26	13	5	41	9	4	1	2	1	116
No		1	2	1	3	1	1		1	1	11
No response		1		4	2			1		1	9

TABLE 5--Continued

CITIES	A	В	С	D	E	F	G	н	I	J	TOTAL
Are most of your coworkers										-	
continuously looking for											
something better?											
Yes	6	24	11	2	19	6	4	1	3	_	76
No	7	4	4	5	26	3	1	1		3	54
No response	1			3	1	1					6
How often are workers absent											
from the job?											
1 or 2 times per week		8	2		17		1	1			29
More than 1 or 2 times per week											0
Seldom absent	14	20	13	10	27	9	3	1	3	3	103
							_				
What are some of their reasons?											
Sickness	10	18	8	5.	35	7	2	_	2	2	89
Hangover		9	2		5	1					17
Personal	1	4	2			2		1	2		12
Don't know	3	4	4	5	4	2	3	1	1	1	28
Do many of your coworkers quit											
their jobs?											
Yes	1	14	15	1	21	7	1				60
No	13	13		8	24	3	3	2	3	3	72
No response		1		1	1		1				4
If yes, what are some reasons?											
Want more pay		8	9		18	4	2				41
Want a better job	2	6	5		4	5					22
Present job too hard		3	2		7						12
Present job too dirty		4	1	1							12 6 8
Poor management	2	2		1	3						8

TABLE 5--Continued

											
CITIES	A	В	С	D	E	F	G	Н	I	J	TOTAL
Which positions seem to be											
vacated most often?										_	0.5
Laborer	10	23	13	4	31	10	3			1	<u> 95</u>
Equipment Operator	2	2	2		3						95 9 2
Truck Driver		1			1						
Don't know	2	3		6	7		2			1	21
UTILIZATION AND SIZE OF WORK FORCE											
In your opinion, are workers assigne	.d										
to jobs that they can do best?							_		_	_	101
Yes	14	27	15	10	38	9	4		3	1	121
No		11			7	1	1	2		2	14
Do you feel that there are enough full-time employees to do the job?											
Yes	13	14		1	31	3	2		1 _	1	66
No	1	14	15	9	15	7	3	2	2	2	70
Are you and your coworkers able to complete your assignments quickly and efficiently?											
Yes	14	28	15	9_	46_	10	5	2	3	2	134
No				1						1	2
Are your training, education or experience being properly used on this job?											
Yes	14	25	15	10	38	10	3_	2	22	3	122
No		3			8		1		1		13

TABLE 5--Continued

CITIES	A	В	С	D	E	F	G	H	I	J	TOTAL
Are the training, education or experience of your coworkers being put to the best use?								•		,	
Yes	14	24	14	7	38	. 9	4		3	3	116
No		2			4	1		2			9
No response or Don't know		2	1	3	4		1		- -		$\overline{11}$

APPENDIX C

BIBLIOGRAPHY

- 1. Haimann, Theo and Scott, William G., Management in the Modern Organization (Boston: Houghton Mifflin Company, 1970), pp. 417-418.
- McFarland, Dalton E., <u>Management Principles and Practices</u>,
 3rd ed. (New York: The Macmillan Company, 1970), p. 514.
- 3. Maslow, A. H., Motivation and Personality, 2nd ed. (New York: Harper and Brothers, 1970), pp. 35-58.
- 4. Namour, Elie, Manpower Requirements for Wastewater Collection

 Systems in Cities and Towns up to 150,000 in Population

 (Washington, D. C.: Manpower Development Staff, Office of Water Program Operations, U. S. Environmental Protection Agency, June 1973), p. 27.
- 5. O'Grady, Joseph F., "Water Utility Managers Need to Communicate with the Public," The American City, January, 1974, pp. 52-53.