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THE INTERACTION BETWEEN LEADERSHIP,
CLIMATE, AND SATISFACTION IN A PROFES-
SIONAL ORGANIZATION

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Naval Postgraduate School
Monterey, California

December 1974

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The Interaction Between Leadership, Climate,
and
Satisfaction in a Professional Organization

by

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Lieutenant Commander, Civil Engineer Corps, USN
B.S., Texas Technological College, 1961


Submitted in partial fulfillment of the
requirements for the degree of

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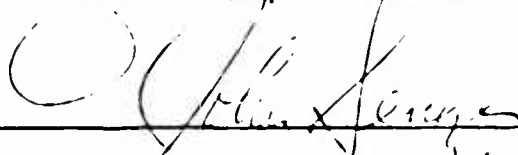
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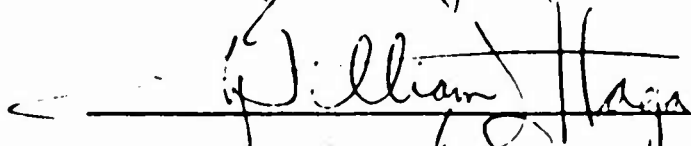
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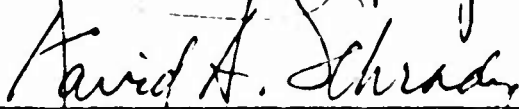
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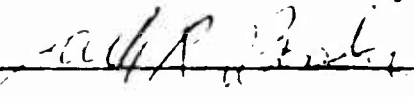


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ABSTRACT

A study was performed investigating the correlation between leadership style, organizational climate, and employee satisfaction. The sample was civil service employees of a Naval Facilities Engineering Command field division. Measurements of leadership style, organizational climate, and employee satisfaction were compiled from a modification of a questionnaire developed by Taylor and Bowers. Statistical findings supported the hypotheses that high supervisor concern for both "task" and "relationship" would correspond to high employee satisfaction and highly favorable employee perceptions of organizational climate; and low supervisor concern for both "task" and "relationship" would correspond with low employee satisfaction and unfavorable perceptions of organizational climate. The hypotheses that high concern for "task" and low concern for "relationship" would correspond with low satisfaction and that high concern for "relationship" and low concern for "task" would correspond with higher employee satisfaction, were not supported.

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I. INTRODUCTION AND BACKGROUND

A. INTRODUCTION

Even a cursory review of recent articles concerning management theory, reveals a tendency toward more participative, humanistic, employee-centered management systems. Whereas the "scientific management" approach of Frederick Taylor was concerned with maximizing the productive output of each employee, more modern approaches have considered the development of an employee as an individual capable of growth beyond his present job requirements. McGregor's "Theory-Y" emphasizes that the essential task of management is the arrangement of organizational conditions and methods of operations so that the people of the organization can realize their own goals while also achieving the goals of the organization (McGregor, 1960).

Organizations have shown increasing interest in the welfare of employees, including satisfaction with pay, job, and work environment. This concern is apparently not based solely on increased production from the employees. Studies have shown that job satisfaction does not correlate strongly with performance (Brayfield and Crockett, 1955, Gordon, 1955, Kirchner, 1967, Porter and Lawler, 1967). However, other studies have shown fairly high positive correlations between satisfaction and both absenteeism and turnover of employees (Ross and Zander, 1957, Spieroff, 1959, Patchen, 1960, Gibson, 1966). In an era of rapidly developing technology, increasing

complexity of man-machine interface, demand for more educated and highly skilled employees, and social emphasis on mobility and personal independence, it is understandable that organizations are very concerned with attracting and retaining quality employees. Thus, the increased interest in employee satisfaction seems justified.

The relationship of leader behavior to employee satisfaction has been the subject of several studies, such as: Comrey, High, and Wilson (1955), Pfiffner (1955), Patchen (1962), Fleishman and Harris (1962), and Bowers and Seashore (1966). Though using different definitions of supervisory behaviors of leadership styles in the comparisons with satisfaction, these studies have generally concluded that supervisory behavior is a major factor in the determination of an employee's satisfaction.

B. LEADERSHIP

A leader's style is the manner or method of dealing with subordinates which he consistently displays. Style is usually a manner of acting which can be identified with some norm. Several norms, or recognized leadership styles, have been described in management theory literature. It would not be beneficial to discuss or even enumerate all of the styles, but some of these will be described to illustrate the major classes of style descriptions.

Several authors have described dichotomous leadership styles such as "consideration" versus "initiating structure" (Halpin and Winer, 1957), "task orientation" versus

"relationship orientation" (Fiedler, 1967), "task" versus "social-emotional" (Senger, 1971) and "employee centered" versus "job centered" (Likert, 1961). A leader's style is determined by his propensity to use one of the opposed methods predominately. A leader who displays a strong concern for both elements, such as the task and the relationship, has been called the "Great Man" by Borgotta, Couch, and Bales (1954).

Blake and Mouton (1964) developed a system of characterizing leadership styles by comparing supervisory behavior with categories described on their managerial grid. The grid was composed of two scaled axes, horizontal and vertical, with values ranging from one to nine on each axis. The horizontal axis measured a leader's concern for production and the vertical, his concern for people. A leader with a very low concern for people and a very low concern for production would be characterized by the 1,1 (coordinate) leadership style called "impoverished management." A very high concern for people and a very low concern for production corresponds to their 1,9 leadership style called "country club management." Under such leadership, production is incidental to avoidance of conflict and maintenance of good fellowship. A very low concern for people, but a very high concern for production corresponds to their 9,1 leadership style called "task management." The employees are just another resource, to be used like machines. A moderate concern for both people and task corresponds to

the 5,5 style called the "dampened pendulum." This style pushes enough for moderate production, but yields as necessary to maintain morale. A very high concern for both people and production would be characterized by their 9,9 leadership style called "team management." This style would be called the "Great Man" by Borgotta, Couch, and Bales (1954).

Some authors preferred a division of leadership styles into three categories such as: "consideration," "initiation of structure," and "decision centralization" (Yukl, 1971), "autocratic," "paternalistic," and "democratic" (Bogardus, 1934), and "authoritarian," "democratic," and "laissez-faire" (Lippert and White, 1960).

Some authors have proposed four classifications of leader behaviors, such as: "support," "goal emphasis," "work facilitation," and "interaction facilitation" (Bowers and Seashore, 1966), and "exploitative-authoritarian," "benevolent-authoritarian," "consultative," and "participative" (Likert 1967).

Other authors presented five categories for leadership style: "group achievement and order," "personal enhancement," "personal interaction," "dynamic achievement," and "security and achievement" (Wofford, 1971), "own decision without explanation," "own decision with explanation," "consultation," "joint decision making" and "delegation" (Heller and Yukl, 1959), "autocratic," "custodial (maintenance)," "supportive (motivational)," "collegial (familial

colleagues)," and "Theory Z (organization transcending)," (Maslow, 1971).

There are several factors which determine the style or styles of leadership behavior a supervisor will display. Among these factors are his personality traits, the task to be accomplished, the structure of the organization and the situational influences. If a supervisor's style was determined by only his personality traits, his behavior should be relatively stable when considered under different situations, structures, and tasks. Fiedler (1967) and Bass and Barrett (1972) found fairly stable behaviors under different situations. However, Fiedler later proposes that the personality interacts with the situation to determine the leadership behavior and that behavior changes as the favorableness of the situation increases or decreases (1971, p. 15). Other authors proposed that successful managers select the appropriate style of leadership based on the situation. Blake and Mouton (1964) discussed a supervisor's backup style as the one he uses when his dominant style fails to get the desired results. Michaelson (1971) said that in very unfavorable situations, supervisors will concentrate on their primary goal (either the task or the relationship) and in a very favorable situation they will concentrate less on their primary goals and more on their secondary goals.

C. SATISFACTION

Satisfaction was defined by Kanous and Lawler (1972), as the sum of goal attainment or need achievement when summed

across all of the job facets. Nezzar et.al. (1971, p. 1) stated "satisfaction with a ~~work~~ situation is the result of various attitudes. Whether favorable attitudes exist toward the work situation depends upon the particular aspects of the job and also upon the way the aspects are perceived by the individual. An organization may have only indirect control over perceptions, but it usually has direct control over many aspects of work. It, therefore, can change these aspects of work through its policies and practices. This in turn can influence individual perceptions of satisfaction."

Ronan (1970, p.2) listed the dimensions of satisfaction most frequently found in job satisfaction studies. These dimensions were:

1. the content of the work, actual tasks performed, and control of work
2. supervision of the direct sort
3. the organization and its management
4. opportunities for advancement
5. pay and other financial benefits
6. co-workers
7. working conditions.

The Job Descriptive Index (Smith, Kendall, and Hulin, 1969), a popular measure of the separate aspects of job satisfaction, contains five dimensions:

1. work
2. pay
3. promotion opportunities

4. co-workers
5. supervision.

These same dimensions were utilized by Taylor and Bowers (1972) in the development of their Survey of Organizations Questionnaire.

D. RELATIONSHIP OF SATISFACTION TO LEADERSHIP STYLE

It was previously mentioned that several studies have shown strong correlations of supervisory behaviors to employee satisfaction. Patchen (1962) found three supervisory behaviors to be of importance in satisfaction:

1. encouragement of efficiency
2. going to bat for subordinates
3. power to reward.

The relationship found was, however, very complex. Peltz (1952, p. 212) even found that in small work groups, employees thought more highly of supervisors who went to bat for them in conflicts with management, but in large white-collar groups, employees preferred supervisors who sided with management. Fleishman and Harris (1962) used the leadership styles "consideration" and "initiating structure." They found lower satisfaction under the "initiating structure" style. Bass and Valenzi (1973) found that under a high degree of organization, but loose constraints and routine tasks, a participative style was positively correlated with satisfaction. However, directive supervision was found to be more satisfying when the organization was disorganized and the tasks required a high degree of planning. The Bass

and Valenzi findings seem to indicate that a people oriented style of leadership will provide more satisfaction in one situation but, a directive style might provide more satisfaction in another situation. Bowers and Seashore (1966) found; from 40 satisfaction-leadership correlation coefficients, 30 which were statistically significant beyond the 5 percent level of confidence. They also found significant relationships between peer leadership and satisfaction. However, Fiedler (1971) stated "no consistent relations emerged between the structuring behaviors of the leader and either effectiveness or member satisfaction. And while a moderate and consistent relationship appears to exist between considerate behavior and member satisfaction, it must be kept in mind that satisfied employees are more likely than unsatisfied employees to describe their superior as considerate."

From these various studies, it was noted that the relationship of leadership style to satisfaction is a very complex and not entirely predictable process. There may even be an intervening variable between leadership behavior and the end product satisfaction. A possible intervening variable considered in the conducting of this study was "organizational climate."

E. ORGANIZATIONAL CLIMATE

Organizational climate is defined by Pritchard and Karasick (1971, p.126) as "a relatively enduring quality of an organization's internal environment distinguishing it from other organizations:

1. which results from the behavior and policies of members of the organization. especially top management
2. which is perceived by members of the organization
3. which serves as a basis for interpreting the situation
4. acts as a source of pressure for directing activity."

Schneider (1973, p.2) said that climate constitutes the beliefs people hold about an organization as distinguished from job satisfaction, which is an individual's evaluation of the organization or the conditions existing in the organization. These definitions provided a theoretical basis for considering organizational climate as an intervening variable between leadership and satisfaction. Specifically, organizational climate results from behavior and policies of members of the organization and serves as a basis for interpreting the situation, thus affecting an individual's evaluation of the organization (his satisfaction).

Several authors have defined the variables or factors which should be considered in organizational climate, but the most comprehensive listing is provided by James and Jones (1973): see Appendix A. The listing is subdivided into four major groups of elements:

1. those concerning job (task) and immediate work environment
2. those concerning leadership
3. those concerning the work group
4. those applicable to the total organization.

Schneider (1973) studied the relationship between organizational climate and satisfaction and found a very

high correlation. Taylor and Bowers (1972, p. 89) in a cross-lag correlation technique found no causal relationships between managerial leadership and the six measures of organizational climate they measured. They did find evidence to support the argument that organizational climate is the cause of satisfaction. However, they did not find evidence that leadership causes satisfaction.

F THE STUDY

It is the nature of the relationships between leadership style, organizational climate and employee satisfaction, that this study proposes to investigate. A survey was conducted, by means of a questionnaire, of the Western Division, Naval Facilities Engineering Command, San Bruno, California. A description of the organization's characteristics and functions is provided in chapter II. The stated hypotheses of the study are contained in chapter III. A discussion of methodology of conducting the survey and processing the data is provided in chapter IV. The findings and conclusions are contained in chapters V and VI.

II. DESCRIPTION OF THE ORGANIZATION SURVEYED

This study examines the effects of leadership on satisfaction and the nature of their relationships with organizational climate in a Navy organization. Several factors were considered in the selection of an organization to be studied:

1. a stable work force that would be well acquainted with the organization.
2. a work force consisting of civil service employees to include career oriented employees, as opposed to active duty military personnel, many of whom might intend to leave the service after only one enlistment term.
3. a large organization was needed so that an adequate sample could be obtained. Responses from more than one organization would not have measured the same organizational climate.
4. a broad range of educational and occupational backgrounds.

The Western Division of the Naval Facilities Engineering Command, located at San Bruno, California, was selected as the object of this survey. It met the above requirements.

The Western Division has been in existence since 1924, when it was established as the District Public Works Office, Twelfth Naval District. It became the Western Division of

the Bureau of Yards and Docks in 1965. The Bureau of Yards and Docks changed its name to Naval Facilities Engineering Command in 1966. Its present size was not reached, however, until 1970 when the Southwestern Division in San Diego and the Northwestern Division in Seattle were merged into the Western Division. Many of the employees from the San Diego and Seattle offices moved to the Western Division and were integrated into the organization or competed for newly established supervisory positions of higher grades. Small branch offices were retained in San Diego and Seattle to provide liaison with the Commandants of the Eleventh and Thirteenth Naval Districts.

At the time of this study, the Western Division had 52 Naval Officers, 808 graded civil service employees and 19 ungraded civil service employees. Not all of these employees were located in San Pedro. More than 300 of these employees were located at field construction offices or branch support offices throughout the Eleventh, Twelfth, and Thirteenth Naval Districts. They were not included in the distribution of the survey questionnaires.

The Western Division is responsible for engineering support to Navy and Marine Corps activities and operating units in the three Naval Districts. That responsibility includes planning, design, and construction of new shore facilities, such as buildings, roads, utilities, water front facilities, and air field facilities. They also provide advice and assistance in the maintenance and management

of such facilities including transportation and family housing by Public Works Offices in their geographical area. They also acquire and dispose of real estate for Navy and Marine Corps Activities.

The organizational chart included in Appendix B shows the structure of this organization. The Acquisition, Maintenance and Planning Departments and the Office of the Comptroller were surveyed in this study. The Resident Officer in charge of Construction, Pacific (ROICCPAC) Department was not included. The ROICCPAC provides procurement support to Pacific Area Construction Offices and does not share a common mission with the Western Division. The smaller staff offices, such as the Director of Programs, Public Affairs, Legal Counsel, etc., were not included in the survey due to the small number of employees reporting to any given supervisor.

These are the three operating departments of the Office of the Comptroller, which were surveyed:

1. Acquisition Department (09A). The majority of its 310 employees were architects and engineers. It is responsible for design, contract awards, and contract administration for new construction and major repairs or maintenance.
2. Facilities Management Department (09B). Its 55 employees were responsible for advice and assistance to Public Works Offices at Navy and Marine Corps activities in managing and maintaining

structures, roads, utilities, housing and transportation equipment. They included engineers, technicians, biologists, chemists, equipment specialists, and administrative specialists.

3. Facilities Planning Department (09P). This department had 75 employees. Its responsibilities included preparation of master plans for development of activities, programming new facilities in the Military Construction Program, coordination of research and development work, real estate acquisition and disposal, military readiness planning and civil defense planning. It was staffed with engineers, architects, urban planners, real estate specialists, soil conservationists and foresters.
4. Office of the Comptroller (01). This department had 105 employees. It was responsible for: maintaining financial records, providing office services, security police, maintenance of the buildings, grounds, and equipment, and the civilian personnel office. The composition of the work group in this department was the most diverse: administrative specialists, accountants, management analysts, computer specialists, mail clerks, telephone operators, travel clerks, supply clerks, personnel specialists, policemen, mechanics, carpenters, electricians, painters, and janitors.

Each of the departments, except the Office of the Comptroller, was headed by a ~~Naval~~ Officer (Commander). The head of the Office of the Comptroller was a civilian employee (GS-15). Under each department were several divisions (see Appendix B). These divisions were headed by civilians, ranging in grade from GS-10 to GS-15. Most were GS-13 to GS-15. Under the divisions were branches, managed by civilians generally one grade below their division director.

III. HYPOTHESES

This study tested the following hypotheses:

1. Subordinates of supervisors who display behavior indicating a high concern for both the task to be done and the people supervised will report a high degree of satisfaction.
2. Subordinates of supervisors who display behavior indicating a low concern for both task and people will report a low degree of satisfaction.
3. Subordinates of supervisors who display high concern for both the task and the people will perceive a highly favorable organizational climate.
4. Subordinates of supervisors who display low concern for both the task and the people will perceive an unfavorable organizational climate.
5. Subordinates of supervisors who display a high concern for the task and a low concern for people will report low satisfaction.
6. Subordinates of supervisors who display a low concern for the task and a high concern for people will report higher satisfaction than those subordinates under a supervisor in paragraph 5 above.

Several basic assumptions were made:

1. that a supervisor displays a consistent behavior
2. that a survey instrument could measure leadership style, satisfaction, and organizational climate

3. that subordinates would honestly state their opinions or perceptions of their supervisor and the organization.

Hypotheses 5 and 6 were expected to be the most difficult to test. If Bass and Valenzi (1973) were correct in their opinion, that different leadership styles will provide more satisfaction under certain situations, a survey of leadership styles and satisfaction, which does not consider the situation, should produce inconclusive results.

IV. METHODOLOGY

A survey questionnaire was the most expedient method of gathering the data due to limited time and the size of the sample.

Several questionnaires, which had been developed and tested previously, were considered for this study. Also considered was the possibility of developing a questionnaire by generating questions specifically tailored to this organization and this study. Existing leadership behavior measures that were considered included the Leadership Behavior Description Questionnaire, The Leadership Opinion Questionnaire, and The Supervisory Behavior Description Questionnaire developed at Ohio State University (Stogdill and Coons, 1957). Several questionnaires were available that determined a leader's own opinion of his style or beliefs, but the object of this study was to measure supervisory behavior, not their beliefs or values or self opinions. It was more appropriate to measure the opinions of the subordinates about their superior's behavior. Several questionnaires were available to measure job satisfaction or facets of employee satisfaction. Among these were: The Opinion Survey (Dawis and Weitzel, 1971), The Job questionnaire (Brayfield and Rothe, 1951), The Job Satisfaction Index (Sheppard and Herrick, 1972), and The Job Descriptive Index (Smith, 1955). Fewer measures of

organizational climate were available, however, one such measure is the Agency Climate Questionnaire (Schneider and Bartlett, 1970).

One questionnaire which measures all three of the variables of interest was found. The Survey of Organizations, developed by Taylor and Bowers (1972), measures employee satisfaction, employee perceptions of organizational climate, and employee opinions of supervisory and peer leadership behavior. Peer leadership was defined by Bowers and Seashore (1966) as support, goal emphasis, work facilitation or interaction facilitation provided by members of the work group other than the formally designated leader: mutual leadership which subordinates supply each other. Taylor and Bowers described the questionnaire:

. . . not as a morale survey in the conventional sense of the word, but as a descriptive survey of organizational conditions and practices. As such, approximately two-thirds of its items ask the respondent for perceptions of organizational reality which he has experienced in the recent past; the remaining third ask for his reactions, feelings, desires, and satisfaction (1972, p.1).

The Survey of Organizations questionnaire contains 105 questions. They measure eight indices of leadership:

1. managerial support
2. managerial goal emphasis
3. managerial work facilitation
4. managerial interaction facilitation
5. peer support
6. peer goal emphasis

7. peer work facilitation
8. peer interaction facilitation

They measure six indices of organizational climate:

1. technological readiness
2. human resources primacy
3. communication flow
4. motivational conditions
5. decision making practices
6. lower level influence

And they measure five facets of employee satisfaction:

1. satisfaction with the organization
2. satisfaction with the supervisor
3. satisfaction with the job
4. satisfaction with pay
5. satisfaction with the work group.

Each question offers five possible responses, on a five point "Likert type" scale. The scale is unipolar as Taylor and Bowers (1972) had, in previous tests, reversed the polarity of some questions to examine the effect on results. They found no significant differences in results and the questionnaire was more difficult to understand.

The Survey of Organizations was developed and modified over a six year period to establish its validity and reliability. The questionnaire had been administered to many different organizations and more than 20,000 individuals. The Navy Human Goals Program had also adopted this questionnaire and used it in organizational surveys by adding

several questions concerning race relations, overseas diplomacy, and drug and alcohol abuse. The questionnaire was "intended for use as a diagnostic instrument, a basis for both motivation and guiding a development program" (Taylor and Bowers, 1972, p.82).

The constructs tapped in construction of the questionnaire were principally those espoused by Rensis Likert in his meta-theory of organizational functioning (1961, 1967) and the modifications to his meta-theory by Likert and Bowers (1969) and Bowers (1972). This theory places the domain of the variables in a juxtaposition with one another. Organizational climate and supervisory leadership are proposed as causal variables; peer leadership and group processes are intervening variables; and satisfaction and performance are end result variables. Taylor and Bowers claim content validity of the instrument based on its consistency with the meta-theory. Their claim of construct validity was based on cross-lag analysis of correlations of the variables in the separate domains in which they found six of seven relationships, between causal variables and intervening or end result variables, verifying the predicted direction of causality (1972, p.89).

The four indices of managerial leadership may be considered comparable to the dichotomy of "group maintenance functions" and "goal achievement functions" (Cartwright and Zander, 1960) if the categories of "support" and "interaction facilitation" are combined and those of "goal

emphasis" and "work facilitation" combined. According to Bowers and Seashore (1966, p. 248), such a combination is still not quite equivalent to the dichotomy of "employee oriented" versus "production oriented."

The 1970 edition of the Survey of Organizations (Taylor and Bowers, 1972) was selected as the instrument for the proposed survey. However, a few changes to the format were desired. Approval was granted by Professor David Bowers, of the University of Michigan Institute for Social Research, to use the questionnaire in a modified form. Twenty of the questions in the 1970 Survey of Organizations contained two parts: one asking the respondent to express "how it is now" and the other asking "how I'd like it to be." The part of the questions concerning respondent's views of how they would like it to be was not of direct interest in this study and was deleted. Bowers explained that the information gathered by those questions is normally used in organization change efforts. Seven other questions in the 1970 Survey of Organizations asked the respondents to provide opinions of what their supervisor needed to be a better manager. Those questions were not directly related to this study and were deleted. Four other questions were deleted as not being relevant to the proposed study, leaving a total of 74 questions. The abbreviated form of the Survey of Organizations utilized for this study is attached at Appendix C.

In order to be able to identify all of the responses concerning a supervisor, the respondents were requested to identify their supervisor by locating his number on the

cover sheet of the questionnaire and placing the number in the blocks following question number 31. Those supervisors listed on the cover sheet included one department head (the Administrative Officer), each of the division directors in the four departments (01, 09A, 09B, and 09P), and branch managers under those division directors. The military department heads were not included, nor were supervisors below the branch manager level.

The questionnaires were distributed in the four departments, by the Office of the Comptroller, attached to a WESTDIV NOTICE explaining that the questionnaire was part of a study being conducted at the Naval Postgraduate School and soliciting voluntary cooperation in completion of the questionnaires. Both the WESTDIV NOTICE and the cover sheet of the questionnaire stressed the point that responses would be kept confidential. Self-addressed envelopes were included with the questionnaires for return of the completed forms through the mail center of the Western Division. Respondents were instructed not to write their names on the questionnaires. Approximately 540 questionnaires were distributed to the four departments of WESTDIV.

Approximately 10 percent of the respondents did not fill in the blocks indicating their supervisor's survey control number. Several of the forms had comments written on the form stating that they would not put their supervisor's number on the form because they felt that by doing so, their questionnaire could be specifically identified

with a single respondent. Several respondents failed to answer one or more of the other questions either by oversight or for a specific reason. These omissions were recorded as zeros on the cards and each of the computer routines took these zeros into consideration. Most of the routines provided for listwise deletion, which caused a case to be omitted from the calculation of all coefficients specified in a routine when that case contained a zero on any variable entered onto the control list.

The data was compiled using the Statistical Package for the Social Sciences (SPSS) (Nie, Bent, and Hull, 1970). A "codebook" run by the SPSS program provided a demographic summary of the responses. This information contained the number of respondents in each age group, sex, education level, and time with the organization.

For subsequent data processing, questions or groups of questions on the questionnaire had to be identified with the variables of interest. The following listing indicates the questions included in the computation of the mean responses for each variable:

Variables	Questions
Supervisory Leadership	
1. support	36, 37, & 38
2. goal emphasis	39, 40, & 41
3. work facilitation	42, 43, & 44
4. interaction facilitation	45, 46, & 49

Peer Leadership

- | | |
|-----------------------------|--------------|
| 1. support | 50, 51, & 52 |
| 2. goal emphasis | 53 & 54 |
| 3. work facilitation | 55, 56, & 57 |
| 4. interaction facilitation | 58, 59, & 60 |

Climate

- | | |
|------------------------------|------------------|
| 1. technological readiness | 1 & 68 |
| 2. human resources primacy | 2, 3, & 5 |
| 3. communications flow | 6, 7, & 8 |
| 4. motivational conditions | 10, 18, & 21 |
| 5. decision making practices | 26, 27, 28, & 29 |
| 6. lower level influence | 24 & 25 |

Satisfaction

- | | |
|-----------------------------------|---------|
| 1. satisfaction with organization | 14 |
| 2. satisfaction with supervisor | 12 |
| 3. satisfaction with job | 13 |
| 4. satisfaction with pay | 15 |
| 5. satisfaction with advancement | 16 & 17 |
| 6. satisfaction with work group | 11 |

A statistical compilation routine (Breakdown) calculated the mean response for each of the variables for all respondents and provided a listing broken down by supervisor number. This listing was used for identification of leadership styles and comparison with satisfaction responses among the different supervisors. Pearson zero-order product-moment coefficients were calculated for all of the above listed variables to determine linear relationships between

pairs of variables. In order to more thoroughly examine the nature of the relationships ~~between~~ the leadership variables, the climate variables, and the satisfaction variables, partial-correlations were calculated while controlling these variables not being directly compared. Partial-correlation coefficients were determined for the four variables of supervisory leadership with the six variables of satisfaction while controlling for the effect of the climate variables. Partial-correlation coefficients were then determined for the supervisory leadership variables with the climate variables while controlling for the effect of the satisfaction variables. Finally, partial-correlation coefficients were determined for the climate variables with the satisfaction variables while controlling for the effects of the supervisory leadership variables. This procedure is generally employed when searching for a spurious relationship or an intervening variable.

The last statistical procedure employed was a factor-analysis of all of the questions contained in the questionnaire. Principal factoring with iterations was employed to arrive at the unrotated factor matrix, communality estimates, eigenvalues associated with the unrotated factors, and the proportion of variance attributed to the initial factors. An orthogonal rotation method (Varimax) was used to reduce the complexity of the factors such that one variable loads heavily on only one factor. The rotated factor matrix was used in analyzing the Taylor and Bowers

definition of variables (which questions should be considered together to constitute one variable) to see if the instrument actually measures what it purports to measure.

V. FINDINGS

A. DESCRIPTIVE STATISTICS

From the 550 questionnaires distributed, 215 were returned completed: a 39 percent response. However, as stated previously, responses were voluntary and no attempt was made to coerce individuals to complete the forms. Even though the instruction sheet of the questionnaire emphasized that responses would be confidential, several respondents felt that they might be identified if they indicated their supervisors' names. Of the 215 completed forms, 23 failed to identify their supervisor. One or more questionnaires were completed identifying 44 of the 52 supervisors listed on the instruction sheet. Only 17 of the 44 supervisors identified had less than three responses each.

A complete table of descriptive statistics is provided in Appendix D. Of interest is that 72 percent of the responses were from individuals over 35 years of age, but 64 percent indicated that they had been with the organization 5 years or less. This would seem to indicate that a large portion of the responses may have come from individuals who were relocated to the Western Division in the consolidation effort of 1970. The data collected might be biased if a large portion of the respondents were those previously located in the field divisions which were closed. However,

no significant correlations were found between "time with the organization" and any other variable.

B. IDENTIFICATION OF LEADERSHIP STYLES

The mean response to the variables "supervisory support," "supervisory goal emphasis," etc., were computed by adding the scores for each of the responses comprising the variable and dividing by the number of questions. The mean responses for each of the supervisory leadership variables were as follows:

support	3.79
goal emphasis	3.59
work facilitation	2.80
interaction facilitation	2.85

This indicates that, as a whole, supervisors are highest in support (friendly and easy to approach) and lowest in work facilitation (providing advice and assistance). The mean responses for each of the peer leadership variables were as follows:

support	3.81
goal emphasis	3.18
work facilitation	2.84
interaction facilitation	2.76

The indication is that work groups tend to be highest in support (friendly and attentive), but lowest in interaction facilitation (emphasizing team work).

An attempt was made to identify leadership styles of the various supervisors by adding "support" and "interaction

facilitation" to give "relationship orientation" and adding "goal emphasis" and "work facilitation" to give "task orientation." It was found that such a computation did not identify any supervisors as high in "task" and low in "relationship" or vice versa. All of the supervisors' scores were either high in both "task" and "relationship," low in both, or about average in both. It was felt that this might not be a true representation of the "task" versus "relationship" orientation of the supervisors, since Michaelson (1971, p.24) pointed out that the "goal emphasis" and "work facilitation" measures, in the Survey of Organizations, both contained elements of interpersonally oriented behavior. An examination of the three questions comprising "goal emphasis" indicated that only question number 40 was completely goal oriented. The measure, "work facilitation," does not contain any questions which contribute to the measure of task orientation of a leader. Likewise, the measure, "interaction facilitation," does not add significantly to "support" as an indicator of a leader's relationship orientation.

A "task orientation" and "relationship orientation" score for each supervisor was then calculated by using the variable "support" (questions 36, 37, and 38) as "relationship orientation" and question 40 as "task orientation." However, even this did not identify many supervisors as strongly "task" or "relationship" oriented. The mean score for all supervisors (N=215) was 3.64 for "task" and 3.79

for "relationship." The widest range of scores for an apparently task oriented supervisor was 5.00 for "task" and 3.17 for "relationship" (N=2). The widest range for an apparently relationship oriented supervisor was 1.00 for "task" and 3.33 for "relationship" (N=1).

Table 2 contains the "task" and "relationship" scores, along with the mean responses to the climate and satisfaction variables, for eight of the supervisors with the largest number of responses. Table 1 contains an explanation of the abbreviations used for the variables in all of the subsequent tables. In general, an above average concern for both task and relationship was accompanied by above average satisfaction scores and below average concern for both task and relationship is accompanied by below average satisfaction scores. Only supervisors G and H show one concern above average and the other below average. Supervisor G would be said to be more task oriented and supervisor H more relationship oriented. Satisfaction with the organization, supervisor and work group are higher for the relationship oriented supervisor's employees, but satisfaction with the job, pay, and advancement are as high, or higher, with the task oriented supervisor.

The relationship of climate to leadership style is not evident from Table 2. Climate perceptions are higher than average for supervisor E, but lower than average for supervisor A, though both are above average in concern for both

TABLE 1

ABBREVIATIONS USED IN TABLES

SUPVSUP = Supervisory Support
SUPVGE = Supervisory Goal Emphasis
SUPVWF = Supervisory Work Facilitation
SUPVIF = Supervisory Interaction Facilitation
PEERSUP = Peer Support
PEERGE = Peer Goal Emphasis
PEERWF = Peer Work Facilitation
PEERIF = Peer Interaction Facilitation
TECHRDNS = Technological Readiness
HURESPRI = Human Resources Primacy
COMFLOW = Communication Flow
MOTVCOND = Motivational Conditions
DECMKPR = Decision Making Practices
LWRLVLIN = Lower Level Influence
SATSORG = Satisfaction with Organization
SATSSUPV = Satisfaction with Supervisor
SATSJOB = Satisfaction with Job
SATSPAY = Satisfaction with Pay
SATSADV = Satisfaction with Advancement Opportunity
SATSWKGR = Satisfaction with Work Group

TABLE 2

MEAN RESPONSES FOR SELECTED SUPERVISORS

SUPERVISOR	A	B	C	D	E	F	G	H	MEAN ALL RESPONSE
N=	(10)	(14)	(17)	(12)	(9)	(8)	(9)	(7)	
TASK	4.0	2.8	3.0	3.4	4.3	2.8	4.1	3.3	(3.6)
RELATIONSHIP	4.8	3.6	3.0	3.6	4.4	3.5	3.3	3.9	(3.8)
TECHRDNS	2.9	2.5	2.6	3.3	3.7	2.2	2.9	3.0	(3.0)
HURESPRI	2.6	2.4	2.0	3.2	3.1	2.3	3.1	2.5	(2.7)
COMFLOW	2.5	2.5	2.2	2.9	3.5	2.3	2.7	2.4	(2.7)
MOTVCOND	3.0	3.0	2.8	3.5	3.5	2.8	3.3	3.2	(3.2)
DECMK PR	2.0	2.4	2.0	2.8	3.1	2.4	2.7	2.5	(2.6)
LWRLVLIN	1.8	1.8	2.1	2.3	2.4	1.9	2.0	1.9	(2.2)
SATSORG	3.8	3.5	3.1	4.1	4.0	3.1	3.4	3.9	(3.6)
SATSSUPV	4.0	3.1	2.8	3.4	4.3	2.9	3.2	3.6	(3.6)
SATSJOB	3.9	3.6	3.4	4.0	4.3	2.8	3.7	3.7	(3.8)
SATSPAY	3.7	3.6	3.5	3.7	4.0	3.1	3.8	3.1	(3.5)
SATSADV	3.4	2.9	2.5	3.6	3.8	2.2	3.0	2.3	(3.1)
SATSWKGR	4.2	3.7	3.6	4.1	4.2	3.2	3.8	3.9	(3.8)

task and relationship. Likewise, perceptions of climate are above average for supervisor D, who is slightly below average in concern for task and relationship. For supervisor G, the task oriented supervisor, climate perceptions are generally higher than for supervisor H, the relationship oriented supervisor.

C. FACTOR ANALYSIS

To further examine the relationship between the variables measured in the survey, a factor analysis of the data was made to see how the factor classification compared to Taylor and Bowers a priori classification of questions into variables. The factor analysis, disclosed thirteen factors which explain the variance of the 215 completed questionnaires. The first eight factors from the VARIMAX rotated factor matrix, which explain 90.7 percent of the variance, are shown in Appendix E.

Factor 1, alone, explained 56.4 percent of the variance, and was labeled "perceptions of supervisor." Questions 34 through 48, about the supervisor, loaded very heavily on this factor as did question 12, concerning satisfaction with the supervisor. Questions 7 and 8 loaded fairly heavily on this factor, though they purport to measure communication flow, a component of organizational climate. Factor 2 explained another 10.2 percent of the variance and was titled "perceptions of peers." Questions 50 through 61 concerning peer leadership, loaded very heavily on this factor as did question 11, "satisfaction with work group."

Factor 3 appears to contain, primarily, the first 5 questions of the questionnaire. Each of these questions asks for perceptions of behavior of the organization. Factor 3 should be titled "perceptions of organization." Only three questions loaded heavily on factor 4 (questions 23, 24, and 25). The factor contained the two questions of the variable "lower level influence" plus another question. Taylor and Bowers (1972, p.73) called the variable "lower level influence" a tentative index, to be used with caution until further evidence is obtained. Questions 63, 65, 66, 67, and 70 loaded heavily on factor 5. From the content of these questions, the factor was titled "work group effectiveness." Factor 6 seems to be a measure of job satisfaction. Questions 13, 19, and 20 concerning job satisfaction and enjoyment loaded heavily on this factor. Factor 7 seems to be a measure of "decisions and conflicts." The four questions comprising the variable "decision making practices" and two questions concerning resolution of conflicts were most heavily loaded on this factor. Factor 8 should be titled "satisfaction with pay and advancement." Questions 15, 16, and 17 were heavily loaded with this factor.

The remaining five factors are fairly weak and the questions which are loaded most heavily on these factors have coefficients less than 0.5. No attempt was made to name these five minor factors. The two strongest factors are "perceptions of supervisor" and "perceptions of peers," accounting for 67 percent of the total variance. These

factors also contained some of the climate and satisfaction variables within them. Factors 3 and 4 contain mostly organizational climate. It is not clear whether factor 5 associates more nearly with climate or satisfaction. Factors 6 and 8 are clearly satisfaction measures and factor 7 is mostly an element of climate.

D. CORRELATION ANALYSIS

The zero-order product-moment correlation coefficients for leadership indices with satisfaction indices are contained in Table 3. All of the coefficients are statistically significant beyond the .05 level of confidence (using a one-tail test), except the correlation of "satisfaction with pay" to "peer goal emphasis." It should be noted that all of the "satisfaction with pay" coefficients are very low. This lends credence to the validity of the instrument, in that Civil Service pay scales are very rigid and supervisory or peer leadership has only a very small influence on pay.

The high correlations between supervisory leadership indices and satisfaction with supervisor were indicated by their heavy loading on the same factor, discussed under the factor analysis section preceeding. The same applies to peer leadership and satisfaction with work group. Taylor and Bowers (1972, p.59) recognized the probability of a general "halo" effect--a tendency to describe a supervisor's behavior as favorable or unfavorable on every factor because of a positive or negative attitude toward him.

TABLE 3

PEARSON CORRELATION COEFFICIENTS
(LEADERSHIP WITH SATISFACTION)

	SATSORG	SATSSUPV	SATSJOB	SATSPAY	SATSADV	SATSWKGR
SUPVSUP	.36	.62	.30	.19	.42	.37
SUPVGE	.31	.58	.27	.13	.30	.32
SUPVWF	.40	.61	.33	.14	.42	.35
SUPVIF	.42	.59	.34	.17	.41	.40
PEERSUP	.23	.29	.35	.17	.31	.53
PEERGE	.33	.34	.40	.11*	.37	.49
PEERWF	.38	.36	.40	.21	.42	.51
PEERIF	.36	.37	.36	.13	.37	.47

*all others significant beyond .05 level
of confidence

The zero-order correlation coefficients between leadership indices and climate indices are contained in Table 4. All of the coefficients are positive and fairly large. They are all significant beyond the .05 level of confidence. The smallest coefficients were found for the correlation of supervisory leadership measures with "lower level influence." The largest coefficients were found for the correlation of supervisory leadership traits with "communications flow," which appears logical, in that the supervisor is normally a primary source of communication concerning the organization's plans, policies, procedures, etc.

The zero-order correlation coefficients between climate and satisfaction indices are contained in Table 5. All of the coefficients are positive and statistically significant ($P < .05$). The correlations between "lower level influence" and the satisfaction measures are generally lower than those for other climate measures. Also, the correlations between "satisfaction with pay" and the climate measures are lower than those of the other satisfaction measures.

The correlation coefficients for the supervisory leadership measures with peer leadership were all statistically significant ($P < .05$) though generally smaller than those found in a previous survey by Bowers and Seashore (1966). The inter-correlations among the climate variables were positive and significant ($P < .05$), as were the inter-correlations among the satisfaction variables.

TABLE 4

PEARSON CORRELATION COEFFICIENTS
(LEADERSHIP WITH CLIMATE)

	TECHRDNS	HURES PRI	COMMFLOW	MOTVCOND	DECMKPR	LWRLVLIN
SUPVSUP	.39	.39	.55	.38	.45	.14
SUPVGE	.46	.44	.57	.39	.49	.20
SUPVWF	.52	.48	.67	.46	.59	.21
SUPVIF	.51	.49	.63	.45	.60	.29
PEERSUP	.27	.33	.35	.37	.40	.19
PEERGE	.39	.41	.36	.45	.47	.31
PEERWF	.40	.39	.45	.47	.49	.30
PEERIF	.37	.43	.48	.44	.49	.39

all coefficients significant beyond .05
level of confidence

TABLE 5

PEARSON CORRELATION COEFFICIENTS
(CLIMATE WITH SATISFACTION)

	SATSORG	SATSSUPV	SATSJOB	SATSPAY	SATSADV	SATSMKGR
TECHRDNS	.53	.48	.33	.23	.42	.39
HURESPRI	.54	.44	.48	.22	.50	.43
COMFLOW	.54	.65	.51	.30	.56	.48
MOTVCOND	.59	.47	.55	.27	.56	.52
DECMKPR	.47	.44	.34	.27	.46	.38
LWRLVLIN	.29	.25	.30	.16	.32	.21

all coefficients significant beyond .05
level of confidence

The zero-order correlation coefficients between "task orientation" and "relationship orientation" classifications, earlier described, and the indices of peer leadership, climate, and satisfaction are contained in Table 6. All of the coefficients, except "task orientation" with "satisfaction with pay," are positive and significant ($P < .05$). "Relationship orientation" correlates more highly than "task orientation" with three of the peer leadership indices and all of the satisfaction indices. "Task orientation" correlates more highly than "relationship orientation" with "peer goal emphasis" and all of the climate indices except "lower level influence."

E. PARTIAL CORRELATION COEFFICIENTS

The tenth order partial correlation coefficients between supervisory leadership measures and satisfaction measures are contained in Table 7. The effects of peer leadership and climate were controlled for in order to view only the relationship of supervisory leadership with satisfaction. Only six of the thirty correlation coefficients were significant beyond the .05 level. Four of these were the correlation of "satisfaction with supervisor" to the supervisory leadership measures.

The partial correlation coefficients between supervisory leadership indices and climate indices are shown in Table 8. The effects of peer leadership and satisfaction were held constant in order to examine the direct relationship of supervisory leadership with climate. It can be seen that

TABLE 6

PEARSON CORRELATION COEFFICIENTS

	Task Orientation	Relationship Orientation
PEERSUP	.14	.31
PEERGE	.34	.31
PEERWF	.26	.34
PEERIF	.27	.37
TECHRDNS	.44	.38
HURESPRI	.46	.38
COMMFLOW	.55	.53
MOTVCOND	.40	.37
DECMKPR	.46	.43
LWRLVLIN	.15	.15
SATSORG	.34	.35
SATSSUPV	.55	.62
SATSJOB	.28	.29
SATSPAY	.05*	.18
SATSADV	.32	.40
SATSWKGR	.31	.35

* all other coefficients significant beyond .05 level of confidence

TABLE 7

PARTIAL CORRELATION COEFFICIENTS
(SUPERVISORY LEADERSHIP WITH SATISFACTION)

Controlling for: PEERSUP, PEERGE, PEERWF, PEERIF,
TECHRDNS, HURESPRI, COMMFLOW,
MOTVCOND, DECMKPR, LWRLVLIN

	SATSORG	SATSSUPV	SATSJOB	SATSPAY	SATSADV	SATSWKGR
SUPVSUP	.04	.40*	.01	.03	.14*	.07
SUPVGE	-.09	.32*	-.04	-.06	-.07	.04
SUPVWF	-.06	.30*	-.01	-.12*	.03	.00
SUPVIF	.01	.28*	.00	-.04	.02	.04

* significant beyond .05 level of confidence

TABLE 8

PARTIAL CORRELATION COEFFICIENTS
(SUPERVISORY LEADERSHIP WITH CLIMATE)

Controlling for: PEERSUP, PEERGE, PEERWF, PEERIF,
SATSORG, SATSSUPV, SATSJOB, SATSPAY,
SATSADV, SATSWKGR

	TECHRDNS	HUREPRI	COMMFLOW	MOTVCOND	DECMKPR	LWRLVLIN
SUPVSUP	.04*	.07*	.15	.01*	.15	-.11*
SUPVGE	.21	.25	.31	.15	.31	.01*
SUPVWF	.24	.20	.37	.13	.39	-.06*
SUPVIF	.19	.16	.27	.07*	.33	.04*

* all others significant beyond .05 level of confidence

sixteen of the twenty-four coefficients are significant beyond the .05 level. None of the coefficients for "lower level influence" are significant and only two of six of the coefficients for "supervisory support" are significant. Taylor and Bowers (1972) hesitancy to use the "lower level influence" variable as more than a tentative climate index may be justified. It does not share the same relationship with supervisory leadership as the other climate indices.

The partial correlation coefficients between climate indices and satisfaction indices are contained in Table 9. The effects of the variables other than climate and satisfaction were held constant. Only five of the thirty-six correlation coefficients were not significant ($P < .05$).

It should be noted that the partial correlations between climate and satisfaction measures were fairly high and positive, and those between supervisory leadership and climate were fairly high and positive, whereas those between supervisory leadership and satisfaction were generally low and several were negative. The high correlations between supervisory leadership and satisfaction, found by the zero-order correlation coefficients were apparently due to the influence of organizational climate variables. However, the zero-order correlations between climate and satisfaction were not substantially influenced by those leadership variables.

TABLE 9

PARTIAL CORRELATION COEFFICIENTS
(CLIMATE WITH SATISFACTION)

Controlling for: PEERSUP, PEERGE, PEERWF, PEERIF,
SUPVSUP, SUPVGE, SUPVWF, SUPVIF

	SATSORG	SATSSUPV	SATSJOB	SATSPAY	SATSADV	SATSWKGR
TECHRDNS	.37	.19	.11*	.16	.20	.15
HURESPRI	.39	.13	.31	.14	.33	.17
COMMFLOW	.35	.35	.35	.23	.36	.23
MOTVCOND	.46	.21	.38	.19	.38	.28
DECMKPR	.23	.03*	.05*	.20	.19	.01*
LWRLVLIN	.16	.12	.18	.12	.22	.02*

* all others significant beyond .05 level of confidence

VI. SUMMARY AND CONCLUSIONS

A survey was conducted to investigate the interactions between supervisory leadership style, employee perceptions of organizational climate, and employee satisfaction. The sample (N=215) was civilian employees of a Navy professional organization. Measurements of leadership style, perceived organizational climate, and employee satisfaction were made by a questionnaire developed by Taylor and Bowers (1972) and modified for this survey.

The hypotheses presented in Chapter III were stated in terms of dichotomous leadership styles; concern for the task or concern for the people. The survey instrument, however, measured leadership behavior in four categories; support, goal emphasis, work facilitation, and interaction facilitation. The four leadership categories measured could not be equated to a dichotomous leadership classification. The results of a factor analysis indicated that all of the questions relating to supervisory leadership comprise only one factor, a general leadership factor. It was necessary to create new variables, from the questions, to determine "task orientation" and "relationship orientation" for testing the hypotheses. Only one question was found to measure "task orientation" while three questions were selected to measure "relationship orientation."

The results using the variables "task orientation" and "relationship orientation," supported hypotheses 1, 2, 3, and 4. They did not support hypotheses 5 and 6.

Hypothesis 1 stated that subordinates of supervisors, who display behavior indicating a high concern for both the task and the people supervised, will report a high degree of satisfaction. The correlation coefficients between both "task orientation" and "relationship orientation" and the satisfaction variables were positive and significant ($p < .05$). Thus, a high measure of concern for both task and relationship must correspond to a high measure of satisfaction.

Hypothesis 2 stated that subordinates of supervisors, who display behavior indicating a low concern for both task and people, will report a low degree of satisfaction. Since the correlation coefficients between "task orientation" and "relationship orientation" and the satisfaction variables are positive, a low concern for both task and relationship must correspond to a low satisfaction measure.

Hypothesis 3 stated that subordinates of supervisors, who display high concern for both the task and the people, will perceive a highly favorable organizational climate. The correlation coefficients between both "task orientation" and "relationship orientation" and the organizational climate variables were positive and significant ($p < .05$). Thus a high concern for task and relationship must correspond to a high (favorable) measure of organizational climate.

Hypothesis 4 stated that subordinates of supervisors, who display low concern for both task and people, will perceive an unfavorable organizational climate. Since the correlation coefficients were positive, as stated above in the discussion of hypothesis 3, a low measure of concern for both task and relationship must correspond to a low measure of organizational climate.

Hypothesis 5 stated that subordinates of supervisors, who display a high concern for the task and a low concern for people, will report low satisfaction. The correlation coefficient between "task orientation" and the satisfaction measures were positive and significant ($p < .05$), except in the case of "satisfaction with pay." Thus a higher concern for task would correspond with a higher satisfaction, no matter what the level of concern for relationship.

Hypothesis 6 stated that subordinates of supervisors, who display a low concern for the task and a high concern for people, will report higher satisfaction than those subordinates of a supervisor displaying high concern for the task and low concern for people. It was found that the differences between the correlations of "task orientation" with the satisfaction measures and "relationship orientation" with the satisfaction measures were small. Though all of the correlations for "relationship orientation" were higher, only those with "satisfaction with supervisor," "satisfaction with pay," and "satisfaction with work group" were significantly higher ($p < .05$) than the comparable correlations

with "task orientation." Thus it cannot be concluded that a high concern for relationship and low concern for task will correspond to a higher measure of satisfaction than will a high concern for task and a low concern for relationship.

A very interesting result of this study was the partial correlation finding that perceived leadership behavior does not correlate very highly with satisfaction. The same partial correlation analysis revealed that the coefficients between perceived leadership behavior and perceived climate and between perceived climate and satisfaction are nearly as high as the zero-order correlations. If leadership was assumed to be the causal variable in this relationship, then the effect on satisfaction must be indirect, through the variable climate. The causality of this triangular relationship was not, however, investigated by this study. Future studies of organization climate, a very popular subject in management and organizational literature at present, will possibly discover the nature of causality in the relationship climate with both leadership and satisfaction, if in fact a causal relationship does exist.

APPENDIX A

ORGANIZATIONAL CLIMATE VARIABLES AND FACTORS

Arranged by Four Levels of Explanation

Job (Task) and Immediate Work Environment

Role Ambiguity	Job Challenge	Task Identification
Role Conflict	Job Pressure	Opportunities for
Job Autonomy	Job Structure	Dealing with Others
Job Variety	Emphasis on Efficiency	Habitability
Job Importance	Standards (Quality and	(Physical
Feedback	Accuracy of Work)	Environment)

Leadership

Support	Leadership Efficiency
Goal Emphasis	Upward Interaction
Work Facilitation	Confidence and Trust - UP
Interaction Facilitation	Confidence and Trust - DOWN

Group

Cooperation	Homogeneity	Group Pride
Friendliness	Workgroup Efficiency	

Total Organization and/or Subsystems

Concern for Individual	Concern for New Employees
Communication - UP	Development - New Employees
Communication - DOWN	Organizational Expectations
Interdepartmental Cooperation	of Employees
Achievement Orientation	Employee Benefits
Progressiveness	Organizational Effectiveness
Decision Centralization	Adaption to Change
Intraorganizational Conflict	Reward Process
Organizational Clarity	Fairness and Objectiveness
Organizational Consistency	of Rewards
Identification with	Opportunities for Growth
Organization	and Advancement
	Status of Organization

APPENDIX C

NOTE: Read these answer categories over carefully. Then answer each of the following questions by circling the number under the answer you want to give.

	To a very little extent	To a little extent	To some extent	To a great extent	To a very great extent
1. To what extent is this organization generally quick to use improved work methods?	1	2	3	4	5
2. To what extent does this organization have a real interest in the welfare and happiness of those who work here?	1	2	3	4	5
3. How much does this organization try to improve working conditions?	1	2	3	4	5
4. To what extent does this organization have clear-cut, reasonable goals and objectives?	1	2	3	4	5
5. To what extent are work activities sensibly organized in this organization?	1	2	3	4	5
6. How adequate for your needs is the amount of information you get about what is going on in other departments or divisions?	1	2	3	4	5
7. How receptive are those above you to your ideas and suggestions?	1	2	3	4	5
8. To what extent are you told what you need to know to do your job in the best possible way?	1	2	3	4	5
9. To what extent do you have a feeling of loyalty toward this organization?	1	2	3	4	5

10. How are differences and disagreements between divisions or departments handled in this organization?

- 1 Disagreements are almost always avoided, denied, or suppressed
- 2 Disagreements are often avoided, denied, or suppressed
- 3 Sometimes disagreements are accepted and worked through; sometimes they are avoided or suppressed
- 4 Disagreements are usually accepted as necessary and desirable and worked through
- 5 Disagreements are almost always accepted as necessary and desirable and are worked through

NOTE: Read these answer categories over carefully. Then answer each of the following questions by circling the number under the answer you want to give.

	Very dissatisfied	Somewhat dissatisfied	Neither satisfied nor dissatisfied	Fairly satisfied	Very satisfied
11. All in all, how satisfied are you with the persons in your work group?	1	2	3	4	5
12. All in all, how satisfied are you with your supervisor?	1	2	3	4	5
13. All in all, how satisfied are you with your job?	1	2	3	4	5
14. All in all, how satisfied are you with this organization, compared to most others?	1	2	3	4	5
15. Considering your skills and the effort you put into the work, how satisfied are you with your pay?	1	2	3	4	5
16. How satisfied do you feel with the progress you have made in this organization <u>up to now</u> ?	1	2	3	4	5

18. Why do people work hard in this organization?

- 1 Just to keep their jobs and avoid being chewed out
- 2 To keep their jobs and to make money
- 3 To keep their jobs, make money, and to seek promotions
- 4 To keep their jobs, make money, seek promotions, and for the satisfaction of a job well done
- 5 To keep their jobs, make money, seek promotions, do a satisfying job, and because other people in their work group expect it

	To a very little extent	To a little extent	To some extent	To a great extent	To a very great extent
19. To what extent do you enjoy performing the actual day-to-day activities that make up your job?	1	2	3	4	5
20. How much do you look forward to coming to work each day?	1	2	3	4	5
21. To what extent are there things about working here (people, policies, or conditions) that encourage you to work hard?	1	2	3	4	5
22. To what extent do you feel your pay is related to how much you help your organization be successful?	1	2	3	4	5

NOTE: Read these answer categories over carefully. Then answer each of the following questions by circling the number under the answer you want to give.

- | | Little or no influence | Some | Quite a bit | A great deal | A very great deal of influence |
|---|------------------------|------|-------------|--------------|--------------------------------|
| | 1 | 2 | 3 | 4 | 5 |
| 23. In general, how much say or influence do you have on what goes on in <u>your work group</u> ? | | | | | |

IN GENERAL, HOW MUCH SAY OR INFLUENCE DOES EACH OF THE FOLLOWING GROUPS OF PEOPLE HAVE ON WHAT GOES ON IN YOUR DEPARTMENT?

- | | | | | | |
|---|---|---|---|---|---|
| 24. Lowest-level supervisors (supervisors of non-supervisory personnel) | 1 | 2 | 3 | 4 | 5 |
| 25. Employees (people who have no subordinates) | 1 | 2 | 3 | 4 | 5 |
| 26. How are objectives set in this organization? | | | | | |
| 1 Objectives are announced with no opportunity to raise questions or give comments | | | | | |
| 2 Objectives are announced and explained, and an opportunity is then given to ask questions | | | | | |
| 3 Objectives are drawn up, but are discussed with subordinates and sometimes modified before being issued | | | | | |
| 4 Specific alternative objectives are drawn up by supervisors, and subordinates are asked to discuss them and indicate the one they think is best | | | | | |
| 5 Problems are presented to those persons who are involved, and the objectives felt to be best are then set by the subordinates and the supervisor jointly, by group participation and discussion | | | | | |

	To a very little extent	To a little extent	To some extent	To a great extent	To a very great extent
27. In this organization to what extent are decisions made at those levels where the most adequate and accurate information is available?	1	2	3	4	5
28. When decisions are being made, to what extent are the persons affected asked for their ideas?	1	2	3	4	5
29. People at all levels of an organization usually have know-how that could be of use to decision-makers. To what extent is information widely shared in this organization so that those who make decisions have access to all available know-how?	1	2	3	4	5
30. To what extent do different divisions or departments plan together and coordinate their efforts?	1	2	3	4	5
31. Which of the following best describes the <u>manner</u> in which problems between divisions or departments are generally resolved?					
1 Little is done about these problems--they continue to exist					
2 Little is done about these problems--they work themselves out with time					
3 The problems are appealed to a higher level in the organization-- <u>but often are still not resolved</u>					
4 The problems are appealed to a higher level in organization-- <u>and are usually resolved there</u>					
5 The problems are worked out at the level where they appear through mutual effort and understanding					

IDENTIFICATION OF SUPERVISOR: Take the separate sheet with the names of all the supervisors in your organization or unit. Find your supervisor's name on the list (he's the person you report to directly). Now, copy the number you find to the left of his name in these boxes.

If your supervisor is not on the list, print his (or her) name in this space below:

NAME _____

PLEASE ANSWER QUESTIONS 34 THRU 49 ABOUT THE PERSON YOU IDENTIFIED. SUPERVISOR MEANS THE PERSON TO WHOM YOU REPORT DIRECTLY.

	To a very little extent	To a little extent	To some extent	To a great extent	To a very great extent
34. When your supervisor has problems related to the work, to what extent does he use group meetings to talk things over with his subordinates and get their ideas?	1	2	3	4	5
35. To what extent does your supervisor handle well the <u>technical</u> side of his job--for example general expertness, knowledge of job, technical skills needed in his profession or trade?	1	2	3	4	5
36. How friendly and easy to approach is your supervisor?	1	2	3	4	5
37. When you talk with your supervisor, to what extent does he pay attention to what you're saying?	1	2	3	4	5
38. To what extent is your supervisor willing to listen to your problems?	1	2	3	4	5
39. How much does your supervisor encourage people to give their best efforts?	1	2	3	4	5

	To a very little extent	To a little extent	To some extent	To a great extent	To a very great extent
40. To what extent does your supervisor maintain high standards of performance?	1	2	3	4	5
41. To what extent does your supervisor set an example by working hard himself?	1	2	3	4	5
42. To what extent does your supervisor show you how to improve your performance?	1	2	3	4	5
43. To what extent does your supervisor provide the help you need so that you can schedule work ahead of time?	1	2	3	4	5
44. To what extent does your supervisor offer new ideas for solving job-related problems?	1	2	3	4	5
45. To what extent does your supervisor encourage the persons who work for him to work as a team?	1	2	3	4	5
46. To what extent does your supervisor encourage people who work for him to exchange opinions and ideas?	1	2	3	4	5
47. To what extent do you feel your supervisor has confidence and trust in you?	1	2	3	4	5
48. To what extent do you have confidence and trust in your supervisor?	1	2	3	4	5

49. How often does your supervisor hold group meetings where he and the people who work for him can really discuss things together?

- 1 Never
- 2 Once or twice per year
- 3 Three to six times per year
- 4 About once per month
- 5 More often than once per month

IN THE QUESTIONS BELOW, WORK GROUP MEANS ALL THOSE PERSONS WHO REPORT TO THE SAME SUPERVISOR.

	To a very little extent	To a little extent	To some extent	To a great extent	To a very great extent
50. How friendly and easy to approach are the persons in your work group?	1	2	3	4	5
51. When you talk with persons in your work group, to what extent do they pay attention to what you're saying?	1	2	3	4	5
52. To what extent are persons in your work group willing to listen to your problems?	1	2	3	4	5
53. How much do persons in your work group encourage each other to give their best effort?	1	2	3	4	5
54. To what extent do persons in your work group maintain high standards of performance?	1	2	3	4	5
55. To what extent do persons in your work group help you find ways to do a better job?	1	2	3	4	5
56. To what extent do persons in your work group provide the help you need so that you can plan, organize, and schedule work ahead of time?	1	2	3	4	5

	To a very little extent	To a little extent	To some extent	To a great extent	To a very great extent
57. To what extent do persons in your work group offer each other new ideas for solving job-related problems?	1	2	3	4	5
58. How much do persons in your work group encourage each other to work as a team?	1	2	3	4	5
59. How much do persons in your work group emphasize a <u>team</u> goal?	1	2	3	4	5
60. To what extent do persons in your work group exchange opinions and ideas?	1	2	3	4	5
61. To what extent does your work group plan together and co-ordinate its efforts?	1	2	3	4	5
62. To what extent does your work group make good decisions and solve problems well?	1	2	3	4	5
63. To what extent do persons in your work group know what their jobs are and know how to do them well?	1	2	3	4	5
64. To what extent is information about important events and situations shared within your work group?	1	2	3	4	5
65. To what extent does your work group really want to meet its objectives successfully?	1	2	3	4	5
66. To what extent is your work group able to respond to unusual work demands placed upon it?	1	2	3	4	5

- | | To a very little extent | To a little extent | To some extent | To a great extent | To a very great extent |
|---|---------------------------------------|--------------------|-----------------------------|-------------------|------------------------|
| 67. To what extent do you have confidence and trust in the persons in your work group? | 1 | 2 | 3 | 4 | 5 |
| 68. To what extent are the equipment and resources you have to do your work with adequate, efficient, and well-maintained? | 1 | 2 | 3 | 4 | 5 |
| 69. To what extent do you feel a real responsibility to help the organization be successful? | 1 | 2 | 3 | 4 | 5 |
| 70. On the basis of your experience and information, how would you rate your work group on effectiveness? How well does it do in fulfilling its mission or achieving its goals in comparison with other work groups in this organization? | | | | | |
| 1 | The work group does a rather poor job | | | | |
| 2 | Fair | | | | |
| 3 | Good | | | | |
| 4 | Very good | | | | |
| 5 | The work group does an excellent job | | | | |
| 71. Sex: | 1 Male | 2 Female | | | |
| 72. When did you first come to work here? | | | | | |
| 1 | Less than 1 year ago | 4 | Between 10 and 15 years ago | | |
| 2 | Between 1 and 5 years ago | 5 | More than 15 years ago | | |
| 3 | Between 5 and 10 years ago | | | | |

73. Into what age bracket do you fall?

- 1 25 years or under
- 2 26 years to 35 years
- 3 36 years to 45 years
- 4 46 years to 55 years
- 5 56 years or over

74. What is highest level of schooling you completed?

- 1 Grade school
- 2 High school
- 3 College
- 4 Graduate school

APPENDIX D

DESCRIPTIVE STATISTICS

AGE

Category	No.	Relative Frequency (percent)
25 yrs. or under	17	7.9
26 yrs. to 35 yrs.	41	19.1
36 yrs. to 45 yrs.	46	21.4
46 yrs. to 55 yrs.	60	31.6
56 yrs. or over	40	18.6
no response	<u>3</u>	<u>1.4</u>
	215	100.0

SEX

Male	160	74.4
Female	48	22.3
no response	<u>7</u>	<u>3.3</u>
	215	100.0

TIME WITH ORGANIZATION

Less than 1 yr.	30	14.0
Between 1 & 5 yrs.	107	49.8
Between 5 & 10 yrs.	41	19.1
Between 10 & 15 yrs.	13	6.0
More than 15 yrs.	23	10.7
no response	<u>1</u>	<u>0.5</u>
	215	100.0

EDUCATION COMPLETED

Grade School	1	0.5
High School	56	26.0
College	124	57.7
Graduate School	32	14.9
no response	<u>2</u>	<u>0.9</u>
	215	100.0

APPENDIX E

FACTOR ANALYSIS

QUESTIONS	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4	FACTOR 5	FACTOR 6	FACTOR 7	FACTOR 8
01	.25	.03	<u>.62</u>	.15	.03	.16	.14	.03
02	.29	.17	<u>.55</u>	.00	-.03	.17	.25	.23
03	.17	.14	<u>.66</u>	-.00	.09	.14	.21	.07
04	.20	.21	<u>.69</u>	.10	.05	.15	.00	-.02
05	.27	.15	<u>.53</u>	.17	.13	.10	.17	-.01
06	.34	.17	<u>.28</u>	.11	.11	.04	.30	.21
07	<u>.52</u>	.24	.25	.21	.00	.16	.17	.19
08	<u>.55</u>	.12	.30	.07	.08	.16	.24	.09
09	.21	.22	.36	-.15	.16	<u>.42</u>	.10	.16
10	.19	.24	.36	.16	.10	.17	.13	<u>.30</u>
11	.30	<u>.54</u>	.16	.04	.14	.29	.08	.12
12	<u>.78</u>	.17	.12	.10	.08	.15	.00	.14
13	.21	.25	.21	.13	.13	<u>.64</u>	-.03	<u>.30</u>
14	.29	.06	.36	.16	.00	<u>.48</u>	.21	.23
15	.06	.05	-.02	.08	.11	-.02	.06	<u>.65</u>
16	.24	.20	.11	.03	.00	.30	.12	<u>.66</u>
17	.29	.17	.19	.05	-.11	.24	.28	<u>.53</u>
18	.18	.21	.40	.20	.01	<u>.43</u>	.09	.11
19	.10	.22	.12	.05	.19	<u>.71</u>	.12	.03
20	.22	.18	.17	.12	.08	<u>.67</u>	.16	.01
21	.40	.23	.30	.09	.03	<u>.41</u>	.31	.18
22	.20	.05	.07	.17	.16	.16	.13	<u>.38</u>
23	.06	.23	.07	.57	-.02	.25	.13	<u>.31</u>
24	.11	.10	.07	<u>.60</u>	.11	.01	.11	.00
25	.04	.15	.16	<u>.70</u>	.14	.11	.14	.11
26	.25	.18	.15	.28	-.02	.06	<u>.42</u>	-.03
27	.33	.11	.22	.28	.07	.16	<u>.43</u>	.13
28	.30	.22	.15	.37	.07	.11	<u>.58</u>	.10
29	.30	.24	.11	.34	.09	.16	<u>.59</u>	.20
30	.06	.15	<u>.35</u>	-.03	.00	.14	<u>.60</u>	.07
31	.33	.10	.23	.14	.14	.12	<u>.50</u>	.22
33	<u>.65</u>	.18	.10	.20	.05	.07	.20	.10
34	<u>.68</u>	.00	.19	.04	.30	-.04	.06	.14
35	<u>.74</u>	.15	.01	-.03	.02	.19	-.04	.06
36	<u>.77</u>	.13	.10	.05	-.02	.14	.06	.08
37	<u>.81</u>	.25	.03	-.02	.00	.18	.06	.07
38	<u>.76</u>	.14	.12	.06	.18	.12	.09	.04

FACTOR ANALYSIS

QUESTIONS	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4	FACTOR 4	FACTOR 6	FACTOR 7	FACTOR 8
39	.74	.05	.31	.03	.26	.05	.09	-.01
40	<u>.60</u>	.05	.09	.17	.26	.00	.03	.06
41	<u>.64</u>	.12	.30	.04	.11	.16	.18	.09
42	<u>.70</u>	.14	.12	-.05	.09	.03	.23	.11
43	.77	.22	.18	.05	.07	.07	.20	.04
44	<u>.78</u>	.14	.12	.18	.10	.13	.20	-.06
45	<u>.71</u>	.25	.18	.14	.10	.06	.21	-.04
46	<u>.68</u>	.12	.07	.02	-.03	.24	.08	.10
47	<u>.84</u>	.08	.15	.00	.15	.08	.01	.14
48	.41	.25	.16	.19	.17	.06	.17	.22
49	.24	<u>.56</u>	.00	.11	.18	.05	.06	.11
50	.03	<u>.74</u>	.14	.08	.09	.13	.08	.06
51	.05	<u>.80</u>	.07	-.13	.07	.14	.15	.04
52	.21	<u>.58</u>	.17	.17	.10	.31	.12	-.01
53	.16	<u>.54</u>	.20	.18	.37	.15	.04	.04
54	.19	<u>.67</u>	.18	.07	.10	.15	.13	.17
55	.16	<u>.65</u>	.19	.08	.06	.14	.17	.15
56	.23	<u>.68</u>	.11	.17	.05	.11	.06	.11
57	.24	<u>.56</u>	.17	.27	.15	.22	.09	.00
58	.23	<u>.55</u>	.09	.33	.13	.20	.14	.03
59	.26	<u>.66</u>	.00	.14	.27	.00	.06	.00
60	.33	<u>.51</u>	.11	.32	.19	.14	.28	.03
61	.37	.45	.12	.27	.34	.04	.14	.07
62	.26	.37	.27	.15	<u>.49</u>	.10	.08	.05
63	.38	.42	.09	.07	.20	.09	.02	.10
64	.25	.35	.07	.12	<u>.53</u>	.10	-.08	.01
65	.24	.22	-.02	.05	<u>.75</u>	.18	.13	.05
66	.15	.49	.20	.13	<u>.55</u>	.16	.10	.17
67	.35	.05	.31	-.01	.24	.02	.26	.20
68	.13	.20	.14	-.04	.23	.39	.06	.03
69	.44	.37	.04	.12	<u>.51</u>	.23	-.04	.03

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