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The School Principal: Sources of Organizational Stress and the Motivation-Hygiene Theory

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THE SCHOOL PRINCIPAL: SOURCES OF
ORGANIZATIONAL STRESS AND THE
MOTIVATION-HYGIENE THEORY

by

George F. Steffen

A Dissertation Submitted to the Faculty of the Graduate School
of Loyola University of Chicago in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Education

January
1985

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VITA

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CHAPTER I

INTRODUCTION

The principal of a suburban elementary, junior high or high school must be an individual possessing many talents. Walter H. Gmelch lists some of the roles of a contemporary principal as follows: "controller, disciplinarian, motivator, persuader, fire-fighter, preserver of the culture, curriculum specialist, and parent-surrogate."¹ No wonder that Gmelch as well as a number of other researchers have discovered that the principal is suffering from role ambiguity. What are the pressures of the principal's job which lead to the development of stress in its most unhealthy forms? Do higher levels of job stress have any bearing on job satisfaction or job dissatisfaction experienced by these principals?

The Purpose

The purpose of this study was to determine if relationships exist between sources of organizational stress of elementary and secondary suburban principals and their motivation to work. The Motivation and Hygiene needs of these principals were identified using the conceptual framework explained by Frederick Herzberg in The Motivation To Work.

The sources of stress with which the study was concerned were the sources of organizational stress, rather than idiosyncratic, individualistic sources of stress which would vary from principal to principal. The first part of the study measured organizational sources of stress which are built into the principalship and categorized those stresses into the theoretical framework devised by Herzberg and his associates.

The second part of the study measured the sources of job satisfaction -- achievement, recognition, responsibility and growth -- and the sources of job dissatisfaction -- a lack of physical, social status, orientation, security and economic factors in the job environment. This part of the study calculated a total job attitude score as well as Motivation and Hygiene subscores for each respondent, all of whom were selected from the population of elementary and secondary principals in suburban Cook County.

The correlational, ANOVA, and Multiple Regression analyses revealed answers to the following Focussing Questions:

Stress

1. Is there a significant difference between the mean job stress score of elementary principals when compared to the mean job stress score of secondary principals?
2. Is there a significant difference between the mean job stress score of principals in districts having a low operating expense per pupil when compared to the mean job stress score of principals in districts having a high operating expense per pupil?

3. Are there significant interactions between school level, operating expense per pupil, and mean job stress score?

4. Which subscores are most significantly correlated with total job stress score?

5. Using multiple regression analysis, is it possible to predict membership in the elementary or secondary group based on each tension subscore total?

6. Using multiple regression analysis, is it possible to predict membership in the low expenditure or high expenditure group based on each tension subscore total?

7. Are there significant differences between the mean stress scores of elementary and secondary principals on each of the following: growth, responsibility, physical, social, orientation, and security?

8. Are there significant differences between the mean stress scores of low expenditure and high expenditure principals on each of the following: growth, responsibility, physical, social, orientation, and security?

Job Attitude

Satisfaction/Dissatisfaction

9. Is there a significant difference between the mean attitude score of elementary principals when compared to the mean attitude score of secondary principals?

10. Is there a significant difference between the mean attitude score of principals in districts having a low operating expense per pupil when compared to the mean attitude score of principals in districts having a high operating expense per pupil?

11. Are there significant interactions between school level, operating expense per pupil, and mean attitude score?

12. Which subscores are most significantly correlated with the total attitude score?

13. Using multiple regression analysis, is it possible to predict membership in the elementary or secondary group based on each attitude subscore total?

14. Using multiple regression analysis, is it possible to predict membership in the low expenditure or high expenditure group based on each attitude subscore total?

15. Are there significant differences between the mean attitude scores of elementary and secondary principals on each of the following: growth, achievement, responsibility, recognition, physical, social, status, orientation, economic, and security?

16. Are there significant differences between the mean attitude scores of low expenditure and high expenditure on each of the following: growth, achievement, responsibility, recognition, physical, social, status, orientation, economic, and security?

Attitude Compared With Stress

17. What is the relationship, if any, between the job attitude scores for all principals studied and the job stress scores for all principals studied?

18. What is the relationship, if any, between the job attitude Motivation scores and the job stress Motivation scores for all principals studied?

19. What is the relationship, if any, between the job attitude Maintenance scores and the job stress Maintenance scores for all principals studied?

20. What is the relationship, if any, between the measure for each of the following on the Attitude Questionnaire when compared to the measure of the same factor on the Job-Related Tension Index: growth, responsibility, physical, social, orientation, and security?

Rationale for the Study

The first question which one may legitimately ask is, "Why study stress in school principals?" Carlton and Brown suggested two reasons. "Awareness of personal stress limits is important. Such self-knowledge allows for better adjustment of the individual's style and for development of diversionary habits designed to reduce instances in which excessive stress is generated."² Besides promoting the development of diversionary habits, these authors point out that "the school administrator must learn to cope efficiently

with day to day stress by understanding it and using it to his or her advantage."³

Karl Albrecht reported that although fifty-year-old executives have concerns about health, middle managers, who as a group tend to be younger (often in their mid-thirties), labor under a delusion of immortality and often do not take account of the stress which accumulates over a period of time. Organizations, like schools, should "invest in managerial stress reduction as a way of keeping their managerial people -- one of their principal resources -- healthy and functioning effectively."⁴

Greenwood and Greenwood likewise pointed out the value of self-knowledge when stress levels are involved. "We believe it is both feasible and advisable for executives to manage their own stress levels and responses of their organizational subordinates, peers and others with whom they deal on a business or social basis."⁵ "The first and probably most important step executives may take in this direction is to improve their knowledge and understanding of the stress process, its effects and the available coping mechanisms."⁶

Another question which might be asked is, "Why use Frederick Herzberg's Motivation-Hygiene Theory in a study of school administrators?" Herzberg identified two sets of factors, the motivator events which determined job satisfaction and the hygiene or maintenance events which had the potential to cause unpleasantness for employees and led to

job dissatisfaction. Herzberg's theory was based on interviews with engineers and accountants, but many replications of Herzberg's original study have been conducted using a variety of subjects. In his 1966 book, Work and the nature of Man, Frederick Herzberg reports on nine replication studies including the one by M. Scott Myers at Texas Instruments, Incorporated.⁷ The subjects in these studies varied from registered nurses in a Veterans Administration hospital to foremen in a wide cross section of industry in Finland.

The use of Herzberg's hygiene and motivation factors in research involving educational administration is not unique to the present study. Iannone (1973) determined the relevancy of Herzberg's findings for a population of elementary and secondary school principals in central New York State. Cohen (1982) applied Herzberg's theory to a sample group consisting of elementary school principals in Philadelphia. The present study adds to the body of knowledge which has already been accumulated and provides further verification for Herzberg's theory, as it applies to school administration.

The choice of school level, elementary and secondary, as an independent variable is not an uncommon one. Keith Goldhammer in his book, Elementary Principals and Their Schools, suggested that the elementary principal was suffering from role ambiguity. "Perhaps the most critical problem faced by the elementary school principal today is the general ambiguity of his position in the educational community."⁸

"Even prior to the advent of the problems caused by teacher militancy and professional negotiations, the elementary school principal felt isolated and confused about his role."⁹ According to Kahn and others, role ambiguity is a primary source of job-related tension.¹⁰

Kenneth Edward Schuetz, in his 1980 study entitled "Sources of Perceived Stress Experienced by Illinois Principals", found that the stress scores for elementary school principals were significantly higher than the scores for junior or senior high school principals.¹¹

The choice of per pupil expenditure as an independent variable in the study is based on the following hypotheses:

1. School districts with fewer collars to spend place additional responsibilities and burdens on school principals. Such principals will experience a greater degree of work overload and suffer from higher levels of job-related stress.
2. School districts with less money to spend place building principals in stressful situations with greater frequency than more financially able school districts. The stress scores from principals working in districts spending fewer dollars per pupil will be significantly higher than the stress scores of principals in districts spending more money per pupil.

Significance of the Study

How will the results of this study be helpful to anyone? First, it adds to the body of knowledge not only with regard to stress and the school principal, but as it applies to school administration. The levels of job satisfaction for suburban elementary and secondary school principals were determined and the stresses on these administrators were

measured.

There are at least four types of individuals who will benefit from learning about the results of this study. The most obvious type is the suburban principal. Carlton and Brown, Karl Albrecht, Greenwood and Greenwood have all pointed out the value of self-knowledge when stress levels are involved. It is important that principals be aware of the sources of stress and understand them as a preliminary step to control -- control of the stress which accumulates within the individual and can have negative consequences. Such self-knowledge is also important for the development of appropriate diversionary habits.

Superintendents and members of boards of education will gain insight into the principal's role. Sources of unnecessary stress and job dissatisfaction may be eliminated, or at least minimized. Sources of job satisfaction may be enhanced or increased.

Professors of education and others involved in the preparation and training of future administrators can benefit from the present study. They will be better able to prepare their students for the stressors, satisfiers and dissatisfiers inherent in the position of principal, as it is constituted in a suburban environment.

Finally, the present study points the way for further research in this area. Replications in urban (inner-city) and rural areas will yield more significant information. When compared with the present study, a fuller picture of

the school principal will emerge.

Independent variables other than school level (elementary vs. secondary) and level of per pupil expenditure may be analyzed with measures on the stress test. Techniques other than correlational analysis, one-way Analysis of Variance, two-way Analysis of Variance, and Multiple Regression Analysis may be employed to gain further insight into the meaning of the results.

Procedure

The method of data-collection was accomplished through the use of written survey instruments which were mailed to each respondent in February, 1984. Secondary principals who failed to respond received a phone call the following month. (More than the minimum required number of elementary surveys were returned, so no further contact with elementary principals was necessary.) Those high school principals who requested it, were mailed second copies of the survey instruments.

One hundred twenty was the minimum sample size because the research design called for subjects to be categorized in four cells and thirty subjects per cell is a minimum for statistical analysis. Usable surveys were returned by 136 principals from suburban Cook County. Of these, seventy-three were from elementary principals and sixty-three were from secondary school principals. The rate of response for elementary principals was 66.7 percent and for high school

principals, the response rate was 92.9 percent.

Suburban Cook County was selected as the target geographical area from which to draw the subjects for the sample group because it is a fairly homogeneous area in terms of being mainly suburban in nature. Counties such as Dupage, Lake or McHenry have more of a mixture of suburban and rural areas contained within them. Chicago was excluded because urban and inner-city principals who are employed by a huge school system are in a quite different environment and very probably encounter sources of organizational stress which vary considerably from suburban administrators.

Five hundred four elementary and junior high school principals from suburban Cook County were identified using the 1982-83 Directory of Suburban Public Schools published by the Educational Service Region of Cook County. Each principal was assigned an identification number for the random selection. In several instances, elementary principals were listed at more than one school. Such individuals were assigned only one number, despite their dual responsibilities, in order that each individual had an equal chance of being selected. (Assigning a separate number for each school would have resulted in such principals being more likely to be selected than the one school principals.)

Some principals had to be disqualified from the population to be sampled. The Employee Attitude Questionnaire asks several questions regarding the principal's relation-

ships with assistant superintendent(s) and the superintendent. Sometimes, however, these positions were merged and the questionnaire became invalid. Twelve elementary principals were eliminated from the population to be sampled as follows: six were also the district superintendent; three were assistant superintendents; one was an associate superintendent; one was a curriculum director; and one is now a classroom teacher. One hundred twenty principals were randomly selected from this revised population and constituted the elementary sample group.

Seventy-one secondary school principals from suburban Cook County were identified using the 1982-83 Directory of Suburban Public Schools published by the Educational Service Region of Cook County. Each of these principals was coded, but no random selection was necessary, however, since they were all included in the sample group.

For the purpose of this study, two separate written survey instruments were used.

To measure job stress, a modified version of the Job-Related Tension Index was used. (See Appendix A) This instrument was developed at the University of Michigan Survey Research Center by Robert L. Kahn, Donald M. Wolfe, Robert P. Quinn, J. Diedrick Snoek, and Robert A. Rosenthal.

The respondent was asked to answer fourteen items (the study questions from the Intensive survey were used) by choosing one of four fixed alternative responses. These responses were: "Never", "Sometimes", "Rather Often", and

"Nearly All the Time". Each alternative was assigned a coded value from one to four and the subject's over-all Tension score is simply the sum of all the items.

The Job-Related Tension Index was used to obtain measures of job stress. It is clear that tension, although related to stress is not synonymous with stress. The Index was printed in a book entitled, Organizational Stress: Studies in Role Conflict and Ambiguity by Robert L. Kahn and others. Although the book frequently refers to "tension", the studies reported draw conclusions about organizational stress. Thus, Kahn seems to use the terms interchangeably.

To measure job satisfaction/dissatisfaction the study utilized a modified version of the 1963 edition of the Annual Employee Attitude Survey which was formerly administered to employees at Texas Instruments, Inc.. (See Appendix B) The format for reporting survey results is aligned to the Motivation/Maintenance framework. The ninety-five question survey instrument is divided into Maintenance and Motivation categories. The maintenance categories are "physical", "social", "status", "orientation", "security" and "economic". The motivation categories on the survey are "growth", "achievement", "responsibility" and "recognition".

Since both survey instruments were altered for the purposes of this study, it was necessary that they be field-tested to establish their validity. This was accomplished in January, 1984 when three elementary and three secondary

principals from Lake County suburban schools field-tested the instruments and made suggestions for their improvement. Lake County was selected as a field-testing area because of its proximity and similarity to suburban Cook County. Several of the survey items were altered based on the recommendations of the principals who field-tested the instruments.

The responses to items on the Job-Related Tension Index were compared to responses on the Employee Attitude Survey using the technique of correlational analysis. Each of the fourteen items on the Job-Related Tension Index was classified into one of the Motivation/Maintenance (Hygiene) categories.

Each of the ninety-five items on the Attitude Questionnaire measured one of the Motivation/Maintenance categories. A job satisfaction/dissatisfaction subscore was calculated for each category.

Three types of scores were then compared using Kendall's Tau Correlation Coefficient. First, the respondents' total scores on the Job-Related Tension Index were correlated with the total scores on the Attitude Questionnaire. Next, the categorical subscores from the Tension Index were correlated with the subscores from the same category on the Attitude Questionnaire. For example, question numbers two, six and eight on the Job-Related Tension Index related to the Maintenance category designated as "Orientation". A tension subscore for these items was calculated. Item numbers two,

six, forty-one, forty-two, forty-four, sixty-four, seventy and eighty-eight on the Attitude Questionnaire pertained to that same category--"Orientation". A job satisfaction/dis-satisfaction subscore was calculated and correlated with the tension subscore in that same category. This was computed for four Maintenance categories -- Physical, Social, Orientation, and Security -- and for two Motivation categories -- Growth and Responsibility.

Finally, the categorical subscores from each instrument were combined into the two broad areas of Motivation and Maintenance. The Motivation scores from the Job-Related Tension Index were correlated with the Motivation scores from the Attitude Questionnaire. A similar correlation was computed utilizing the Maintenance (Hygiene) scores from each instrument.

The total scores from the Job-Related Tension Index were the dependent variable in a four cell, 2 x 2 factorial research design using the independent variables of school level (elementary and secondary) and level of per pupil expenditure (high and low). The level of per pupil expenditure was determined by using the "Operating Expense Per Pupil" figures compiled by the Illinois State Board of Education, Department of Finance and Reimbursements. These figures were reported in Illinois Public Schools Financial Statistics 1981-1982 School Year. One-way and two-way analysis of variance were used to test for significant differences between the group means on the dependent variable (stress

scores).

The respondents were categorized in the following manner:

Per Pupil Expenditure	School Level	
	Elementary	Secondary
High	36	32
Low	37	31
	73	63
N= 136		

The independent variables of school level and per pupil expenditure were used in another four cell, 2 x 2 factorial research design, this time using the total scores from the Attitude Survey as the dependent variable. Once again, analysis of variance was used to test the group means.

Two respondents from each cell were randomly selected for follow-up interviews. These interviews utilized questions from two parts of Robert L. Kahn's 1964 study of role conflict and ambiguity.¹² Section A consists of questions about sources of satisfaction in the job. Section D consists of questions about job stress. These questions appear at the end of the paper in Appendix C.

Limitations of the Study

The study had several limitations which should be

noted. First, both the Attitude Questionnaire and the Job-Related Tension Index are closed form type questionnaires. This form requires each respondent to choose a particular answer (Attitude Questionnaire) or rank a series of statements in order of importance or frequency (Job-Related Tension Index). According to Deobold Van Dalen, such closed form questionnaires have the following limitations:

They often fail to reveal the respondent's motives (why he answers as he does), do not always yield information of sufficient scope or depth, and may not discriminate between fine shades of meaning. Fixed alternative responses may make respondents take a stand upon issues about which they have no crystallized opinion or may force them to give answers that do not accurately express their ideas.¹³

Van Dalen suggested that such questionnaires may be improved by adding a "don't know" or "undecided" category to resolve some of these difficulties. This category was provided in the Attitude Questionnaire.

Two respondents from each cell were randomly selected for follow-up interviews. Interviews, in general, have several weaknesses. "The race, age, sex, religion, vocabulary, accent, ethnic background, or social class of the interviewer" may affect the data returns.¹⁵ "The biases of the interviewer himself, the environment in which the interview takes place, the sex of the interviewer, etc. are all factors that need to be considered."¹⁶

The structured interview, in which standardized questions are presented in the same manner to each subject, was used in this study. This particular type of interview is

limited by a "rigidity in the investigative procedures that may prevent the investigator from probing in sufficient depth."¹⁷

Obviously, in both questionnaire and interview research, it is assumed that the subjects are responding in an honest and straightforward manner. This, of course, may not always be the case, despite an assurance in the accompanying letter that the anonymity of the subjects would be maintained.

The correlational analysis was achieved in the study by classifying the fourteen items from the Job-Related Tension Index into the Motivation/Maintenance (Hygiene) categories and computing stress scores within each of these categories. The first and most obvious limitation of this technique is that not all of the Motivation/Maintenance categories were represented in the Job-Related Tension Index. There were no questions pertaining to the maintenance (hygiene) factors of "status" or "economic" concerns. There were no questions relating to the motivational categories of "achievement" or "recognition". Conversely, there were three questions from each of the following categories: "orientation", "security", "growth" and "responsibility". There was one question which pertained to "social" and one which pertained to the "physical" category.

The fact that some motivation and maintenance categories were not represented on the Job-Related Tension Index does not weaken the correlations obtained using Kendal's Tau

correlation coefficient. However, it does leave open to speculation what correlations in those four areas might have shown.

Cooper and Marshall report that there are several serious difficulties with the use of correlational analysis in stress research.

First, correlational analysis fails to point out the role of intervening variables. A causal chain is not necessarily only two variables long as many studies would have us believe. Second, even if we took into account a number of possible intervening variables in a multiple correlational design, we would still be unable to determine how much each of the potential stressors, for example, contribute to the manifestation of stress.¹⁸ Third, many of the correlational studies focus on one point in time, which limits the inferences one can draw about causality. More longitudinal data is required, within multivariate designs, to provide more accurate information on the nature and volatility of the stress situations.¹⁹

The lack of longitudinal data is a definite limitation of the study. The surveys were mailed to principals in February. Perhaps principals might have responded differently during other, more highly stressful times of the school year. Had the principals responded at the beginning of the school year in September or at the conclusion in June, the data might have been different.

The study is further limited due to the fact that principals from Chicago were not included in the sample group. Thus, a large portion of Cook County was not represented. Neither were suburban private or parochial school principals surveyed. It would be difficult, therefore, to make generalizations about other populations based on the conclusions

of the present study.

Definitions of Terms

The following definitions were used throughout the study:

STRESS

(systemic stress) - a condition in which--due to function or damage--extensive regions of the body deviate from their normal resting state. In accordance with the common usage of the word 'stress', the term 'systemic stress' is sometimes loosely employed also to denote the stimuli which cause systemic stress. In this sense, it is preferable, however, to speak of alarming stimuli or 'stressors'.²⁰

Stress is the nonspecific response of the body to any demand made upon it. In more colloquial terms, we might define stress as the rate of wear and tear caused by life.²¹

Physiological stress is revealed by a specific sequence of events. Selye terms this sequence the general adaptation syndrome (G.A.S.) and distinguishes three stages therein. The first stage is an 'alarm reaction', the second a 'stage of resistance', and the third a 'stage of exhaustion'.²²

In other words, stress is not some external agent which causes the human body to react, but the physiological reactions within the body, itself.

STRESSOR

(alarming stimulus) - any agent capable of eliciting first an alarm-reaction and, if its action is prolonged, the entire general-adaptation-syndrome.²³

A stressor can be defined as a demand made by the internal or external environment of an organism that upsets its homeostasis, restoration of which depends on a nonautomatic and not readily available energy-expending action.²⁴

A stressor is simply any stimulus which causes the body to produce stress. In order to qualify as a stressor,

a stimulus must at least cause the body to produce the first stage of the G.A.S.--the "alarm reaction". If the effect of the stressor is prolonged, the body may exhibit the characteristics of the second and third stages of the G.A.S., as well.

TENSION

According to Antonovsky, tension is the strain incurred by the body due to stressors. He reserves the word 'stress' for the strain that remains when the tension is not successfully overcome.²⁵ For Antonovsky, then, tension is a broader term and stress is simply a subset of tension, the residual tension that has not been successfully overcome by the G.A.S..

For Shaffer, 'tension' means muscular tension. It is a concomitant of the first stage of the G.A.S.--the 'alarm reaction'. Such tension often occurs particularly in the lower back, in the neck and shoulders, and in the form of tension headaches.²⁶

In Stress Without Distress, Hans Selye draws a distinction between stress and tension. Stress is not merely nervous tension.²⁷ Selye points out that although emotional stimuli are common stressors in human beings, lower animals with no nervous systems and even plants exhibit stress reactions.

Thus, it is clear that for all three researchers tension, although related to stress, is not synonymous with stress.

DISTRESS

(harmful unpleasant stress)²⁸ Stressors may be either positive or negative. Distress is the unpleasant stress produced by the body in response to negative stressors.

Selye has coined the words 'eustress' and 'distress' to distinguish between positive and destructive forms of stress.²⁹ Throughout this study whenever the term 'stress' is used, it refers to distress.

EUSTRESS

stress which does not cause the body harmful effects. Selye points out that physical exercise in most instances turns stress into eustress whereas frustration usually turns into distress. Not all stress is unpleasant and complete freedom from stress is death.³⁰

Overview

Chapter One has explained the purpose, rationale, and significance of the study. The four components of the procedure were briefly described: Method, Subjects, Materials and Analysis of Results. The limitations of the study were explained and definitions of five key terms and concepts were provided.

Chapter Two will present a Review of Literature. This chapter is divided into two broad sections. The first reviews the literature relating to job stress. The second reviews literature in the area of job satisfaction/dissatisfaction. An explanation of Frederick Herzberg's Motivation-Hygiene Theory may be found in this second section.

Chapter Three will be a Presentation and Analysis of the Data. It will provide more detailed background information about the subjects, materials and procedure used in the study. The results obtained by the correlational analysis of the data obtained from the two questionnaires are presented. The second section explains the 2 x 2 factorial design. The null hypotheses are listed and the results of the statistical tests, one-way analysis of variance, two-way analysis of variance, and multiple regression analysis

are reported. A separate section explains the data obtained from interviews.

Chapter Four contains three major sections. The first is a summary. The second section presents the conclusions based on the results obtained in the study. The third section details recommendations.

All appendices are printed after the Bibliography. Footnotes are listed at the conclusion of the chapter.

Footnotes

¹Walter H. Gmelch, "Beyond Stress to Effective Management," OSSC Bulletin 20 (May/June 1977): 10.

²Patrick W. Carlton and G. Ronald Brown, "The Stress Game: Administrator Roulette," Thrust 10 (January/February 1981): 11.

³Ibid.

⁴Karl Albrecht, Stress and the Manager (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1979), p. 119.

⁵James W. Greenwood, III and James W. Greenwood, Jr., Managing Executive Stress (New York: John Wiley and Sons, 1979), p. 48.

⁶Ibid., p. 49.

⁷Frederick Herzberg, Work and the Nature of Man (New York: World Publishing Company, 1966), p. 77.

⁸Keith Goldhammer, Gerald Becker, Richard Withycombe, Frank Doyel, Edgar Miller, Claude Morgan, Lou DeLoretto, and Bill Aldridge, Elementary Principals and Their Schools (Eugene, Oregon: Center for the Advanced Study of Educational Administration, University of Oregon, 1971), p. 4.

⁹Ibid., pp. 5-6.

¹⁰Robert L. Kahn et al., Organizational Stress: Studies in Role Conflict and Ambiguity (New York: John Wiley and Sons, Inc., 1964), p. 380.

¹¹Kenneth Edward Schuetz, "Sources of Perceived Stress Experienced by Illinois Principals" (Ed.D. dissertation, Illinois State University, 1980), pp. 80-81.

¹²Robert L. Kahn et al., Organizational Stress: Studies in Role Conflict and Ambiguity (New York: John Wiley and Sons, Inc., 1964).

¹³Deobold B. VanDalen, Understanding Educational Research (New York: McGraw-Hill Book Company, 1973), pp. 325-326.

¹⁴ Ibid., p. 329.

¹⁵ Ibid.

¹⁶ Lawrence S. Meyers and Neal E. Grossen, Behavioral Research: Theory, Procedure, and Design (San Francisco: W. H. Freeman and Company, 1974), p. 177.

¹⁷ Deobold B. VanDalen, Understanding Educational Research (New York: McGraw-Hill Book Company, 1973), p. 331.

¹⁸ Cary L. Cooper and Jud Marshall, Understanding Executive Stress (New York: P.B.I. Books, 1977), p. 198.

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²⁰ Hans Selye, The Physiology and Pathology of Exposure to Stress (Montreal, Canada: ACTA, Inc., 1950), p. 9.

²¹ Philip Goldberg, Executive Health (New York: McGraw-Hill Publications Company, 1978), p. 25.

²² Martin Shaffer, Life After Stress (New York: Plenum Press, 1982), p. 2.

²³ Hans Selye, The Physiology and Pathology of Exposure to Stress (Montreal, Canada: ACTA, Inc., 1950), p. 9.

²⁴ Aaron Antonovsky, Health, Stress, and Coping (San Francisco: Jossey-Bass Publishers, 1979), p. 72.

²⁵ Ibid., p. 3.

²⁶ Martin Shaffer, Life After Stress (New York: Plenum Press, 1982), p. 30.

²⁷ Hans Selye, Stress Without Distress (New York: J. B. Lippincott Company, 1974), p. 30.

²⁸ Ibid., p. 138.

²⁹ Philip Goldberg, Executive Health (New York: McGraw-Hill Publications Company, 1978), p. 28.

³⁰ Hans Selye, Stress Without Distress (New York: J. B. Lippincott Company, 1974), p. 32.

CHAPTER II

THE REVIEW OF RELATED LITERATURE

The Review of Related Literature is organized according to two broad topics. The first part of the chapter reports on the literature related to job stress and the second section summarizes the literature in the area of job satisfaction/dissatisfaction.

The stress literature is presented in three parts. The first summarizes studies of job stress for workers, in general. The second part explains the research pertaining to executive or managerial stress, and the final section is devoted to stress and the school administrator.

The material explaining job satisfaction/dissatisfaction is presented in two parts. First, sources of job satisfaction/dissatisfaction for workers, in general will be explained. Secondly, sources of principals' job satisfaction and dissatisfaction will be reviewed.

The literature cited in each section and subsection pertaining to stress and job satisfaction/dissatisfaction is arranged chronologically, with the oldest studies reviewed first and the more recent findings at the end.

Stress

Stress is an extremely broad topic, drawing from several disciplines in the research--physiology, psychology, sociology, business and school administration. The focus in the present study is on sources of organizational stress. The literature in this chapter is concerned with stressors in the work environment. No attempt has been made to report on those studies concerned with analysis of personality types and their relationship to stress such as those of Friedman and Rosenman, or on studies dealing with life events or Life-Change-Units, the work of Holmes and Rahe, for example. Nor has any of the pioneering laboratory analysis done by Dr. Hans Selye which explains the physiological aspects of the stress cycle (the G.A.S.) been described.

Although the focus remains steadfastly on organizational sources of stress, it must be admitted from the outset that organizational sources of stress interact with individual personality variables to determine the level of stress. What is stressful for one principal may not be for another. Each person interprets events through his or her own perceptual "glasses". This has not prevented researchers from identifying sources of stress in organizations, including schools, which seem to be built into the systems, themselves, regardless of the individual who occupies the position of manager or principal.

Sources of Workers' Job Stress

Much of the literature dealing with job stress is fairly recent--having been written within the past twenty years.

In a study published in 1964, Robert L. Kahn and others reported on two studies in role conflict and ambiguity.¹ In the first or Intensive Study, fifty-three focal offices at seven industrial locations in the oil, automobile, electronics and machine parts industries were selected and respondents were interviewed at the job sites.² A second, nationwide survey of role conflict and ambiguity was undertaken and 1300 persons were interviewed, although only 725 of these were utilized in the sample group.³

The results showed that role conflict was a common occurrence in the work situation. Almost half the respondents reported being caught "in the middle" either between two conflicting persons or between conflicting factions.⁴ Another of the dominant forms of role conflict was found to be work overload. Overload created role conflict because it required the employee to choose which legitimate tasks would be accomplished and which would not. This problem in the setting of priorities was reported by almost half of all respondents.⁵

Role ambiguity was identified as another factor contributing to job-related tension. There were four specific sources of role ambiguity each of which was cited by approximately one third of the respondents.⁶ The

sources were uncertainty about how the supervisor was evaluating their work, uncertainty about opportunities for advancement, uncertainty about their scope of responsibility, and uncertainty about the expectations of others regarding the performance of one's job. About two of every five workers interviewed thought that "they were given insufficient information to perform their jobs adequately."⁷

The consequences of ambiguity include "low job-satisfaction, low self-confidence, a high sense of futility, and a high score on the tension index."⁸ Kahn reported here on a definite relationship between low job satisfaction and a high degree of tension (job stress) as measured on the Job-Related Tension Index. However, the assertion is not that low job satisfaction causes tension, but rather that both are by-products of role ambiguity.

Kahn also discovered a relationship between rank and tension which could be related to elementary school principals. Kahn described this relationship as a "curvilinear" one in which the maximum amount of conflict occurred at the upper middle levels of management. His conclusion explaining this finding argued that this was a "consequence of the still unfulfilled mobility aspirations of middle management, in contrast to the better actualized aspirations of top management people."⁹

John R. P. French, Jr. and Robert D. Caplan (1972) agreed with Kahn that role ambiguity is significantly related to low job satisfaction and stress. In a study

conducted by Caplan and French at the Goddard Space Flight Center utilizing 205 male, volunteer administrators, engineers and scientists, sixty percent reported some form of role ambiguity.¹⁰ Caplan and French believed the chain of causality works as follows: the greater the ambiguity reported by the worker, the lower the utilization of his skills and thus the lower the job satisfaction.

Role conflict means being "caught in the middle between two sets of people who demand different kinds of behavior on the job."¹¹ Caplan and French discovered that although some organizations have more role conflict than others, this is a frequent and serious problem, especially for administrative personnel. "The administrator has more opportunity for conflict because he spends less time than the others working alone."¹² In the Goddard study, administrators reported more role conflict than either engineers or scientists.

Five types of situations produce role conflict and strain:

1. Being torn by conflicting demands.
2. The pressure of 'having to get along' with people.
3. Differences of opinions between oneself and one's superiors.
4. Difficulties in handling subordinates, secretaries, and others.
5. Having to do things one doesn't really want to do, such as certain administrative duties.¹³

Another source of job stress identified by Caplan and French is work overload. Work or role overload is composed of two separate and distinct variables. Quantitative over-

load occurs when "the person has more work than can be done in a given time."¹⁴ Qualitative overload is caused by work which "requires skills, abilities and knowledge beyond what the person has."¹⁵ In the Goddard study, 72.6 percent reported some degree of overload and items which dealt specifically with quantitative overload correlated .60 with job tension.¹⁶ On the basis of several studies which they had completed, Caplan and French concluded that the forms of work overload produced nine different kinds of psychological and physiological strain in the individual, two of which were job tension and job dissatisfaction.

Related to the workload stressor is the concept of "goodness of fit". This has to do with how well suited the employee is for his/her job. "It is the goodness of fit between the demands of the job and the abilities of the person which will determine the amount of strain."¹⁷

Workers are stressed by two forms of territorial behavior within organizations:

1. having to make work contacts across organizational boundaries
2. having your job located in a territory where the dominant occupation is different from your own¹⁸

The first variable may be related to the discovery that contact across organizational boundaries is associated with role conflict.

Caplan and French reported that "responsibility for persons, their work, careers, professional development, and their job security is more stressful than responsibility for

things--budgets, projects, equipment and other property."¹⁹ The study at Goddard showed that responsibility for things had little or no effect on stress, but people who had great responsibility for others spent great amounts of time in meetings and on the telephone. Such individuals often got behind in their schedules and spent a great deal of time working under deadline pressure.

Poor relations with others in the job environment is another potential stressor. Employees with this problem are characterized by low trust, low supportiveness, and low interest in listening to and dealing with the problems of others. This source of stress is very closely related to both role ambiguity and role conflict. For example, poor relations with one's superior, colleagues and subordinates are more likely to occur whenever the person experiences a good deal of role ambiguity. Poor relations are also more likely to occur when there is conflict over how jobs are to be done and what the priorities are for an organization. Poor relations with others produces psychological strain in the form of low job satisfaction and feelings of job-related threat to one's well-being.

Lack of opportunities for participation in decision-making in which the person might wish to be involved create a strain in the individual and can be adversely affect productivity. In the Goddard study, Caplan and French found that "people who reported high opportunities to participate in decisions affecting the work they do tend to report high

job satisfaction and low job-related feelings of threat."²⁰ Of all the stressors considered, "low participation has the greatest harmful effect on job satisfaction and threat."²¹

Alan A. McLean (1979) listed four relatively common categories of threatening or stressful events which occur on the job, three of which are at least partially dependent on the organization.²²

Evaluation, which is nearly universal in the world of work, is a stressful event. "It is always a test of one's adequacy compared with others."²³ The threatening elements of competition and examination cause marked anxiety.

Individual vs. organizational practices constitute a second category of potential job stress. When institutional practices conflict with a person's standards, values and mores, this can be quite stressful for the employee. Examples of this stressor might be found in the salesman who is asked to "push" a product which he knows to be inferior or the executive who is told to bribe a public official in order to close a contract.

The corporate charter is a source of stress for many employees. "Any institutional pattern that blocks the use of such forms of coping will increase the stress reaction for that individual."²⁴ Organizational practices may become stressors when they interfere with the individual's ways of coping and dealing with the tasks at hand.

McLean identified six factors intrinsic to a job which can cause a high level of stress. Qualitative and quantita-

tive work overload and underload are potentially deadly stressors. McLean worked on the assumption that coronary heart disease is related to stress levels. Accordingly, he cited two studies which demonstrated the strong relationship between quantitative work overload and heart disease. In a study by Breslau and Buell of workers in light industry under the age of forty-five, the researchers found that those who were on the job more than forty-eight hours per week had twice the risk of death from coronary heart disease as employees who worked forty hours or less per week.²⁵ In another study of one hundred young coronary patients done by Russek and Zohman, it was found that twenty-five percent had been working at two jobs and forty-five percent had jobs that required them to work sixty or more hours each week.²⁶

Like French and Caplan, McLean believed role ambiguity and role conflict are persistent sources of stress in organizations. A study conducted by French and Caplan supports this assertion.

French and Caplan (1970) telemetered the heart rates of twenty-two men for a two hour period while the men were at work in their offices. They found that the individual's heart rate was strongly related to his report of role conflict.²⁷

Dr. McLean further agreed with French and Caplan that responsibility for people is a source of stress. He cited a British study by Pincherle which found evidence of physical stress in 1200 managers linked not only to age, but also to level of responsibility.²⁸

Career development conditions are common organizational sources of job stress. These stressful conditions include overpromotion, underpromotion, lack of job security and thwarted ambition. Career development conditions in conjunction with role ambiguity and role conflict may help to bring about yet another stressor--poor work relationships. Poor relationships with superiors, subordinates and peers had already been identified as a source of stress by Caplan and French and is another area where McLean agrees with these researchers.

Finally, organizational structure and climate can be stress-producing. Examples of this category of stressors include the following:

1. Little or no participation in the decision-making processes that relate to one's job
2. Restriction on flexibility of work behavior
3. Interference with desirable communication²⁹

Research supports McLean's contention that an organizational structure or climate which permits little or no participation in the decision-making process produces stress in its employees. Margolis (1974) in a nationwide study of more than 1400 workers "found that nonparticipation in decisions about one's work was the most consistent and significant predictor of 'strain and job-related stress'".³⁰ The study also found that non-participation was linked to low self-esteem and low job satisfaction.

Caplan, Cobb, French, Harrison and Pinneau (1980) reported on their study of 2010 male volunteers representing

twenty-three different occupations selected to include a wide variety of job stresses.³¹ The occupations were divided into three groups: blue collar, blue/white collar, and white collar.

The results of the study showed that several job stresses tend to have similar levels in any given job:

1. low utilization of one's abilities
2. low participation
3. low complexity of the work
4. poor person-environment fit on job complexity
5. poor fit on responsibility for persons
6. poor fit on role ambiguity³²

Assembly line workers, fork lift drivers and machine tenders are occupations which measured high on these stresses. Occupations low on these stresses were professors, family physicians and other professionals. The men in the three high stress jobs suffered from low social support from their supervisors and others at work, while men in the low stress jobs reported high social support.

There was no significant relation of job stress to physiological or behavioral strains and there was no clear evidence that personality variables directly affect psychological, physiological, and behavioral strains.³³

Assemblers and relief workers on the machine paced assembly lines had the highest stress and strain levels of all twenty-three occupations. Interestingly, these same two types of workers reported the most boredom and the greatest dissatisfaction with the work load. "Somatic complaints were most frequent in assemblers and relief men on machine paced assembly lines." For these occupations,

then, there seemed to be a strong relationship between level of stress, boredom, dissatisfaction with work load and frequency of somatic complaints.

Executive and Managerial Stress

A great quantity of literature has been written regarding stress in business executives and managers. Indeed, leaders in the business world have been concerned about the consequences and costs of high stress levels in administrative personnel to a much greater degree than educational leaders. This portion of the chapter does not attempt to report all such literature on executive stress, but only that which is applicable to the principalship.

Jere E. Yates (1979) identified six stressors which managers commonly face: boredom, poor physical working conditions, time pressures and deadlines, exorbitant work demands, information overload, and job design and technical problems.³⁴

Poor physical working conditions for managers are most commonly caused by noisy and/or crowded offices. The physical impact of these stressors is often cumulative and long range.

Time pressures and deadlines are pressures that seem to be intrinsic to a manager's job, but exorbitant work demands may vary depending on the cyclic nature of certain businesses. Such work demands can take various forms--tightly scheduled work days, heavy travel and/or simulta-

neous demands. Work overload can also be caused by understaffing.

Information overload results from managers' need to be conversant with a wide variety of technical information (the reports of associates: technical, business and trade journals), as well as from the need to read daily newspapers and general correspondence.

Job design and technical problems can be major sources of stress for the manager or any employee. Responsibility is the key factor, however. For example, having the responsibility for dealing with irate customers (or parents) can create heightened stress levels as can the responsibility for other people's lives or well-being, which would probably be the case with an air traffic controller. When an employee's job is part of an interdependent matrix with others, this can be quite stressful due to the fact that someone else can delay or prevent the completion of the task(s).

Yates listed four primary sources of stress which are organizational in nature: role conflict, role ambiguity, responsibility for people and territorial boundaries.³⁵

Yates used Robert L. Kahn's definitions in describing role conflict and role ambiguity and Caplan and French's terminology with regard to responsibility for people and territorial boundaries (all of which have been explained earlier).

Yates reported a third type of stressor which he termed "environmental". Such stressors are all related to career development, or lack of it.

Underpromotion and overpromotion are common "environmental stressors". Underpromotion is stressful because it requires the individual to work at a job which poorly utilizes his/her abilities. Overpromotion, which is sometimes referred to as the Peter Principle, occurs because of the tendency of employees to rise to their level of incompetence and then remain there. A person who is asked to do work beyond his/her capacity must suffer from excessive stress.

Lack of job security is a common stressor in certain positions and in particular industries. Yates reported that in the aerospace industry, for example, frequent layoffs or the threat of them cause people so much stress that they become ineffective in their work.

Thwarted ambition is an "environmental stressor" as well as a personal one. People need to sense progress in the development of their careers. When an organization, by its structure and/or operation, permits little or no progress, a fair amount of stress will result from the disappointment.

Success, itself, can be stressful for some individuals. Other people come to expect more from the person who has exhibited past success. The pressure to continue to be successful can cause great stress.

Poor relationships with others in the work environment is the final "environmental stressor". Yates simply reported on the work of French and Caplan.

"Organizational structure and climate" is the final

category of organizational stressors according to Yates. Beginning with the work of Caplan and French with regard to lack of participation, Yates went on to add three more stressors of his own. Bureaucratic pettiness results in "rules, policies, and procedures which make little sense and which may actually impede or frustrate the achievement of legitimate goals, both personal and organizational."³⁶ Organizations which require a high degree of conformity, not only in dress and behavior but in the area of ideas, as well, prevent divergent thinking and can be very stressful. When the upper levels of management consistently demonstrate a lack of responsiveness to the requests and reports of lower-level employees, these workers become distressed. Indeed, most people prefer a negative response to simply being ignored.

Kiev and Kohn (1979) reported on a national study of 2,685 top and middle management level executives, all of whom were members of the American Management Association.³⁷ The random sample included 1,422 "top management" people--those holding the title of vice-president, secretary, or treasurer--and 1,237 "middle management" executives--those holding the title of "manager".³⁸ These individuals were asked to respond to a questionnaire containing twenty-two factors which had previously been found to be sources of job stress.³⁹

The results showed that for most of the managers, stress is a "sometimes thing".⁴⁰ For both top and middle

managers, only three situations occurred more frequently than "sometimes" during the previous year. In order of frequency these were:

1. Heavy workload/time pressures/unrealistic deadlines
2. Disparity between what I have to do on the job and what I would like to accomplish
3. Long hours/long commuting distance⁴¹

Except for excessive travel, middle managers felt they were in stressful situations slightly more often than top managers did.

When only "Interpersonal" and "Organizational" factors were considered (excluding "Personal" factors), three types of stressful situations happened, on the average, either "sometimes" or more during the previous year for top management, but six types of stressful situations occurred within the same frequency and time range for middle management:

Top Management

1. The general 'political' climate of the organization
2. Lack of feedback on job performance
3. Uncertainty about the organization's or industry's future⁴²

Middle Management

1. The general 'political' climate of the organization
2. Lack of feedback on job performance
3. Lack of authority to make decisions that match my responsibilities
4. Lack of (or limited) opportunities for advancement
5. Uncertainty about what is expected of me on the job
6. Change in organization structure/company reorganization⁴³

Again, in these factors, middle managers perceived stressful situations occurring more frequently than top executives.

Both top and middle managers exhibited little evidence of anxiety about job security. When only "interpersonal"

and "Organizational" factors were considered, the most stress-producing was "the general 'political' climate of the organization". This ranked highest for both top and middle management. "This underscores the importance of the work environment as an influence on social interactions, job performance, and job satisfaction."⁴⁴

Both top and middle management were stressed by "lack of feedback on job performance", but top management was more stressed by "uncertainty about the organization's or industry's future". Middle managers were more stressed by "lack of authority" and "lack of opportunities for advancement". Role ambiguity, indicated by "uncertainty about what is expected of me on the job," is more frequently a problem for middle managers than for top managers, although it ranked seventh in both management types' lists in terms of numbers reporting.

Karl Albrecht (1979) pointed out the stressful position occupied by middle managers or "first tier" executives, as he referred to them. "'First tier' executives--that is, those who report directly to the chief executive officer--often experience stress more extensively than does the chief."⁴⁵ There may well be parallels between middle management in business and industry and building principals.

Many supervisors and middle managers feel pulled two ways during the day-to-day business of managing. They experience problems, pressures, and even demands from the employees they manage, and they can also experience the pressure of demands imposed by the managers above them. In many ways, middle management can be one of the most frustrating areas of organizational life.⁴⁶

Albrecht's contention that middle management is more stressful than top management was borne out in the research conducted by Kiev and Kohn reported earlier.

Greenwood and Greenwood (1979) identified three environmental categories of stress: physical, biotic and social.⁴⁷ Of these, the social environment is the most prolific source of stress to humans. Executives, however, are subject to special social stresses. For one thing, executives must continually seek to stimulate and encourage change. In order to do this, they must overcome the innate tendency to strive for internal stability, both in themselves and in others. This assigned responsibility for managing change is stressful.

The bureaucratic milieu is in itself stressful. "Established social institutions (rules, laws, folkways, mores, etc.) impose restrictions on the individual and limit freedom of action in a wide variety of ways, many of which may be perceived as stressful."⁴⁸

The Greenwoods felt that executives are, by definition, risk-takers. Everyone experiences a certain amount of risk just in daily life, but executive stress is magnified because some of these risks involve the wealth or welfare of other employees.

A certain amount of stress is due to the fact that executives are, by nature, seekers after power. All executives must indulge in some self-assertive behavior or they would never become or continue to be executives. Yet, this

tendency must be balanced by the integrative tendency (which accounts for cooperation, compassion and commitment to the group). The tension of operating between these two forces is stressful.

The executive at work has frequent opportunities for social interaction and this may well be the major source of environmental stress. The modern executive must be an effective communicator, yet the difficulties of communicating effectively produce considerable stress. Not only this, but a special characteristic of those who supervise others is that they must maintain harmonious working relationships while at the same time promoting the achievement of organizational goals. This produces an endless array of potentially stressful social interactions.

Time, itself, is one of the sources of executive stress, according to the Greenwoods. "The individual's perception of time limitations tends to be stress-producing, especially when differing activities compete for attention to all of them."⁴⁹ "Many executives appear to be particularly susceptible to the frustrations arising from their inability to control their use of their own time."⁵⁰

Greenwood and Greenwood described "summit isolation" which would probably be most applicable to the superintendent, but which might also apply to some degree to the principal. As one advances up the executive ladder, there is an increasing loss of communication with one's family and with lower level employees thus creating the phenomenon of

loneliness. This loss of communication and resultant loneliness is another source of stress for the school or business executive.

Robert L. Kahn (1981) reported two studies which have implications for executive stress in general, and stress on principals, in particular.⁵¹

A study by Frankenhaeuser (1971) measured physiological signs of strain--elevated heart rate, increased secretion of adrenaline and nonadrenaline, elevated systolic blood pressure--produced when the physical job demand was heavy or if it was perceived as heavy by the subject. Mental tasks were shown to evoke physiological strain when the tasks were performed under distracting conditions, such as the presence of workshop noise.⁵² The busy business executive or school principal is often forced to do mental tasks in a noisy work environment, and thus they are subject to the very stresses for which Frankenhaeuser was able to measure the physiological effects.

Russek (1962) studied symptoms of strain in the medical, dental, and legal professions. Within each occupational group, "he correctly predicted the relative frequency of hypertension and coronary heart disease".⁵³ In medicine, the incidence of these diseases ranked lowest for pathologists and dermatologists and higher for anesthesiologists and general practitioners. In dentistry, the incidence of stress-related diseases was successively higher in periodontists, orthodontists, oral surgeons and general

practitioners. In law, patent law, other specialties, trial law and finally general practice were the most stressful. From these data, Russek detected a definite pattern. He inferred the main stressor to be "direct responsibility for the well-being of others, especially in combination with the necessity of being directly responsive to many people under continuous time pressure."⁵⁴ This responsibility for others in combination with the need to be directly responsive to many people (children, teachers, parents, etc.) under continuous time pressure seems an appropriate description of the principal's position. However, it must be noted that none of the three professions studied by Russek was wholly administrative in nature, although doctors, dentists and lawyers may perform administrative-type duties from time to time.

Friend (1982) reported a study involving thirty-nine subjects, all of whom were management personnel engaged in a two-week management training course in engineering economics at a technical education center of a large public utility.⁵⁵ The subjects took a pre-test at the beginning of the two-week session, and a three and one half hour, eighty question exam at the close. At the end of the final exam, subjects completed a five-minute self-report questionnaire which included questions about subjective work load, time urgency, state anxiety, and task involvement.

The mean values for subjective work load, time urgency and anxiety on the post-test were all as high or higher than

the highest values on the pre-test, thus indicating that this was a very stressful situation for the subjects. Although this was only a correlational study, there was indirect evidence that the psychological states of the subjects caused performance differences. The results showed that greater subjective work load and greater time urgency were associated with substantially lower performance. Subjective work load and time urgency had negative, linear relations with incremental performance (which was independent of ability level). The other two variables showed no relationship. The results "indicate great potential benefit from eliminating a high sense of work load and great time urgency in management jobs in general."⁵⁶

Stress and the School Administrator

This section focusses on the literature which is concerned with the sources of stress for building level administrators. Reports, articles and books dealing exclusively with sources of stress for the superintendent and/or other central office personnel have not been included since the emphasis of this study is on the building principal. Studies which reported the sources of stress for various levels of school administrators, including principals, have been included.

In an early study (1962), Charles F. Wilson surveyed 182 public high school principals in New Jersey.⁵⁷ Wilson then compared his results with a 1957 survey of 6,013

business executives conducted by the Life Extension Foundation of New York City.⁵⁸

Wilson's results showed that only 6.6 percent of all high school principals reported that they worked under tension "all or most of the time".⁵⁹ The majority of principals and businessmen did not feel that they were working too hard. Both the principals and the businessmen enjoyed job security and experienced job satisfaction to an overwhelming degree.

In a special comparison of 800 high tension businessmen and sixty-two high tension principals with the rest of their respective groups, Wilson found that high tension principals worked far fewer hours on homework than did the other principals, but traveled considerably more than the rest of the principals. A significantly larger percentage of both high-tension principals and businessmen felt that they were working too hard and working under constant pressure. "Dissatisfaction with their job and its requirements was much greater among high-tension businessmen and principals than among the other businessmen and principals."⁶⁰ High tension businessmen and principals reported more personality conflicts with their associates than low tension executives and principals.

The attitudes of the high-tension group toward their job--working too hard, boredom or lack of job satisfaction, job insecurity, dissatisfaction with professional progress, aversion to travel related to the principalship, dislike for homework, desire for early retirement--all indicated quite strongly a close relationship with the presence of tension.⁶¹

Keith Goldhammer and others (1971) described two aspects of the elementary principal's position which other researchers have shown to be highly stressful. The first stressful aspect of the job is role ambiguity. "Even prior to the advent of the problems caused by teacher militancy and professional negotiations, the elementary school principal felt isolated and confused about his role."⁶² "...The elementary school principal understandably is confused about the nature of his responsibilities and the extent of his influence as an educational leader."⁶³ Kahn, Caplan and French, Alan A. McLean and others all commented on the high levels of stress associated with role ambiguity.

The second aspect of the elementary principal's role which is stressful pertains to problem-solving. Goldhammer pointed out that principals in the "beacons of brilliance" (excellent) schools "felt that these were problems that the school was established to correct, thus the administrators emphasized their responsibilities toward the solution of children's problems."⁶⁴ When the principal acts as problem-solver, he/she moves into potentially stressful situations. Kahn found that "roles which demand innovative problem solving are associated with high role conflict and with tension".⁶⁵ Thus, elementary principals may suffer from special stressors which do not affect secondary school principals or which affect them to a lesser degree--role ambiguity and the feelings of responsibility for the solution of children's problems.

Eric W. Vetter (1976) pointed to "role overload" as a significant source of role pressure on principals. This occurs because the principal lacks the time and energy to do all that is expected of him.

...role pressures are increasing for school principals. These role pressures give rise to psychological stress which can result in lowered job satisfaction and dysfunctional behavior.⁶⁶

Vetter saw two important forces which have given rise to the increased role pressures faced by principals:

1. an increasing need for coordinated effort in order to achieve effective results
2. attitudes and expectations of individuals have changed. Office-holders have become suspect in terms of competence and ethics.⁶⁷

For Vetter, psychological stress occurs when principals experience either role conflict or role overload and/or when they lack role competence to successfully meet the demands of the problem or situation.

Walter H. Gmelch (1977) characterized the principal as a "role prisoner". This occurs because principals accept too many responsibilities, each of which can evolve into an over-demanding role.

Of particular significance to the problem of administrative stress is the fact that work is characterized by 1) an unrelenting pace; 2) brevity, variety, and fragmentation; 3) preference for live action.⁶⁸

Principals have very few breaks as they rush through mail, phone calls, meetings and other activities which consume every moment from early morning to late evening. Based on Gmelch's research, "managers average thirty-six written and sixteen verbal contacts each day."⁶⁹ Thus, the principal's

job may be characterized as a series of brief encounters with a wide variety of activities. Due to the fact that there is a lack of a specific activity pattern or schedule, administrators are frequently required to shift mental gears quickly. Yet, Gmelch reported that administrators are attracted toward these more active tasks and actually prefer activities which are current and non-routinized.

Gmelch identified "people" as one of the main stressors for school administrators. "The stress on administrators today is likely to come from an irate parent, unruly kids, or a tenacious teacher, all who require diplomacy and finesse."⁷⁰ The battle of people is fought with the art of persuasion or compromise. This forced calm builds repressed rage without any adequate target. "Administrators are forced to keep their natural responses bottled up inside until they can later go out and kick the dog, or 'kick the bucket' as the actual case may be."⁷¹

Gmelch listed eight organizational sources of stress in schools: qualitative and quantitative work overload, underwork, job ambiguity particularly with regard to the scope of responsibilities, overly hierarchical organizational structure characterized by excessive rules and close supervision, role conflict, managing and being responsible for people, frequent out-of-town travel to meetings or conferences, and the nature of educational changes. Examples of potentially stressful educational changes include

the following:

involvement by students in decisions that affect them, growth of citizen activism, increasing pressure on school districts for basic changes as a result of federal and state laws and regulations, the advent of employee militancy, and the increasing effort on the part of employee groups to control the decision-making process through collective bargaining.⁷²

Besides the organizational sources of stress, Gmelch identified "interpersonal stressors" as another source of stress for administrators. An example of an interpersonal stressor would be conflict resolution. This is an integral part of management's job and, hence, this is a key source of stress.

Gmelch was part of a research team which included James L. Koch, Boyd Swent and Rosalie Tung. In 1977 this group sampled 1156 vice-principals, principals, superintendents and central office administrators in the state of Oregon in order to determine "What Stresses School Administrators and How They Cope".⁷³ More than sixty percent of the administrators who participated in this study estimated that at least seventy percent of the total stress in their lives came from their jobs.⁷⁴

The responses were analyzed and four underlying sources or dimensions of job stress were identified. "Role-based stress" arises from the respondent's role and responsibilities as an administrator. "Task-based stress" stems from the day-to-day performance of activities in an organizational setting. "Conflict-mediating stress" deals with the resolution of conflicts between students and between

parents and the school. "Boundary-spanning stress" arises "from the administrator's activities in relating the school to the external environment (e.g. collective bargaining, gaining support for school budgets)".⁷⁵

Task-based stress declined with age, but not role-based or conflict-mediating stress. Boundary-spanning stress actually increased with age.

Similar results were found based on the respondents' years of administrative experience. Respondents with sixteen or more years of experience were less bothered by conflict-mediating and task-based sources of stress than less experienced administrators. Boundary-spanning stress increased significantly for each advanced experience group.

Principals experienced significantly greater role-based, conflict-mediating, and task-based stress, but superintendents reported greater boundary-spanning stress. In general, public school administrators were more likely to be bothered by task-based, conflict-mediating and boundary-spanning stresses than by role-based stresses.

Boyd Swent and Walter Gmelch identified ten specific sources of stress for school administrators in 1977.

1. increasingly complex local, federal and state regulations
2. excessive number of meetings
3. paperwork requirements
4. maintenance of public approval and financial support for schools
5. dealing with parent/school conflicts
6. evaluation of staff member performance
7. making directives and decisions which 'affect the life chances' of professional associates
8. coping with excessive workloads

9. self-imposing unrealistically high performance expectations
10. constant interruption by telephone calls⁷⁶

Paul David Larson, in his 1977 study of 601 elementary principals in Iowa, investigated the sources of stressful situations and attempted to determine why principals viewed these situations as stressful.⁷⁷ The results of Larson's study show the elementary principal's position to be a moderate to highly stressful one especially as it related to the factors of student discipline, records and reports, staff evaluation-supervision, and curriculum and instruction. There appeared to be a definite relationship between the degree, intensity and frequency of stress and those job responsibilities which were identified as being highly stressful.

Maryanne Roesch conducted a study involving 281 elementary school principals in Virginia in 1979.⁷⁸ She was interested in determining the relationship between the individual principal's reaction to stress and his/her coping preferences. The independent variables of administrative experience, sex, chronological age, and school district size were studied using the level of stress and coping preference as the dependent variables.

The results of the study showed that more experienced administrators exhibited less anxiety than those with little or no experience and female principals experienced less anxiety than their male counterparts. Older principals (55-64) reported less anxiety than younger ones (25-34). No

relationship was discovered between anxiety level and the size of the school district.

The Roesch study is significant because a number of researchers have written about the cumulative nature of stress. The idea that stress increases with time was not confirmed by Roesch. Indeed, more experienced and older administrators reported less anxiety than younger, less experienced ones.

In his 1980 study of 247 elementary and secondary school principals in Illinois, Kenneth Edward Schuetz attempted to identify and classify sources of perceived stress and tried to determine the intensity of the stress as perceived by the respondents. The results showed that the stress scores for elementary school principals were significantly higher than for high school or junior high school principals. School enrollment also produced significantly different results. The most highly stressed principals were in schools of 301-600 students.⁸⁰ The least stressful principals were in schools where the student population ranged from 601-1000.⁸¹

Principals who reported a high degree of role conflict had significantly higher stress scores than principals who reported low role conflict. Principals who reported a high degree of career advancement expectations also reported higher stress scores. There was a significant relationship between the principals' level of satisfaction with salary and the level of stress. Principals who reported a high

degree of quantitative work overload also had significantly higher stress scores.

On the basis of this study, Schuetz concluded that responsibility for people was more stressful to principals than responsibility for things. For example, the dismissal of a tenure teacher was rated the most stressful situation while deciding on the merits of a major purchase of capital equipment was the least stressful.

Schuetz's study provided further support for the theories and finding of others. Goldhammer reported on the special problems facing elementary principals and Schuetz found this position to be more highly stressful than the junior high or high school principalships. Kahn, Caplan and French, McLean, and Yates all reported on the stressful nature of role conflict. In the Schuetz study, those principals who reported a high degree of role conflict had significantly higher stress scores. Work overload was identified as a stressor by all of the following authors: Kahn, Caplan, French, McLean, Cobb, Harrison, Pinneau, Yates, Friend, Wilson, Vetter, Kiev, Kohn and Gmelch. Schuetz found that principals who reported a high degree of quantitative work overload had significantly higher stress scores. Responsibility for people and their careers was reported to be a source of stress by Caplan and French, McLean, Yates, Russek, and Gmelch. The Schuetz study provided further support for this contention.

Michael and Dolores Giammatteo (1980) listed twenty-

four specific stressors which may plague school administrators:

1. Open door policy for visitors
2. Telephone calls
3. Paper work (memos, letters, grants)
4. Compliance with regulations (federal, state, district)
5. Community leaders
6. Collective bargaining
7. Lack of control (time or agenda)
8. Bypassing the chain of command
9. Militant workers and staff
10. Inadequate data as a basis for decisions
11. Managing delegated tasks
12. Lack of understanding by others of my goals (staff, students, community groups)
13. Grievances
14. Staff Evaluation
15. Feelings of Inadequacy
16. Too much authority
17. Lack of authority to act in a professional manner
18. Lack of friends
19. Too many friends
20. Role expectancies
21. My personal style
22. Lay boards
23. Advisory boards
24. My home life
25. Other⁸²

The Giammateos explained seven more general categories of administrative stressors. The first of these is "changes". Whether the changes are in laws, regulations, management skills and techniques, or in daily routines, all changes are potentially stressful.

Impulsive behavior on the part of the administrator may be stressful. This may take place with peers, staff, or students.

Four of the potential stressors have been reported by earlier authors and researchers. These are: lack of role clarity and presence of role conflict; underuse which not

only includes boring, unchallenging work, but lack of responsibility and lack of a sense of accomplishment; work overload; and an organizational structure which is overly restricted by numerous laws, rules and policies and which fails to provide employee participation in policy-making and clear feedback.

The final type of general administrative stressors are classified under the heading, "My Personal Work World". Physical problems are the most common sources of stress in this area. An office which is too small or crowded, too noisy, poorly organized, or badly lighted can raise administrators' stress levels. Frequent interruptions, either by telephone or by staff members in-person, may produce the same negative results.

In his 1981 article, "Stress and the School Administrator," James Piatt reported that while qualitative work overload was a source of stress, work underload was a stressor as well.⁸³ Piatt identified another source of administrative stress as uncertainty--"the job tasks are not clear".⁸⁴ This is, of course, the same concept as role ambiguity identified by Kahn and many other researchers in their studies.

Four other sources of stress listed by Piatt were the following: interpersonal tension, competition, external pressure (groups), and person/position mismatch.

The concept of how well suited an individual is to the job assignment recurs frequently throughout the literature

pertaining to job stress. Piatt referred to the concept as "person/position mismatch". Caplan, Cobb, French, Harrison and Pinneau identified this factor as "person/environment fit". In her 1981 study, Kathryn Padovano Hughes measured the impact of job stress and person-environment fit on school administrators.

The study surveyed ninety-three elementary, junior high and senior high principals, all in the Long Beach Unified School District.⁸⁵ Using the Job Demands and Worker Health instrument developed by Caplan, Cobb, French, Harrison and Pinneau in 1975 at the University of Michigan Institute for Social Research, the author attempted to discover the interrelationships between stresses in the work environment and the resulting physiological and psychological strain on the administrator.

Results of the study showed a significant difference between the earnings attained and the desired earnings for both male and female administrators. Among other findings were the following: 95.5% answered "hardly any time to think"; 95.5% felt that they had a "great" workload; 96.6% felt others expect a "great deal" or "a lot" of work from them; 96.6% felt that they had a very large number of tasks to perform; 86.4% felt a "high responsibility" for the future of others; and 90.9% felt a great deal of responsibility for the morale of others.⁸⁶

With regard to the demographic variables, marital status and tenure on the job did not significantly correlate

with any of the stress variables. However, there appeared to be less strain on the administrators as chronological age increased.

Maurice Vanderpol (1981) reported that "the changing role of school administrators is a primary source of job-related stress".⁸⁷ Principals are no longer regarded as unquestioned authorities, but they must be democratic leaders who share decision-making with subordinates.

Another source of stress results from the administrator's need to find the proper balance between the need to make quick decisions and the need to gather input from those affected by the decision.

The implementation of "special education" laws, both state and federal, is a serious stressor for administrators at all levels. Because they can be taken to court, "school administrators have had to become quasi-lawyers".⁸⁸

Yet another factor contributing to administrative stress is the decision-making with regard to teacher layoffs, or reductions in force as a result of reduced enrollments. "The necessity of choosing which teachers shall stay and which shall go places principals in an adversary role vis-à-vis the teaching staff."⁸⁹ As a result, principals must write more critical evaluations of their faculty members.

There is no question that schools have assumed a larger role in society and educators have assumed new and greater responsibilities. There has been a growth of

societal expectations regarding the role of schools as well as an increase in self-imposed responsibilities. For example, the self-imposed commitment to help every child no matter how difficult his or her problems, places tremendous pressure not only on teachers and support personnel, but on principals as well.

Vanderpol noted that these stressors were intensified because they have occurred just as many school administrators must confront the self-doubts and questioning of middle age and as their own children become troublesome adolescents. This interactive effect of job stress with the personal life stressors of middle age is especially potent and may bring about the following symptoms of stress:

feelings of tension, anxiety, frustration, and isolation; feelings of depression that may take the form of restlessness, boredom, or burnout, and doubts about one's adequacy and ability to perform.⁹⁰

Robert H. Koff, James M. Laffey, George E. Olson, and Donald J. Cichon (1981) surveyed a national sample drawn from members of the National Association of Secondary School Principals and the National Association of Elementary School Principals. One of the purposes of the study was to assess the relative magnitude of stress induced by certain events using the Administrative Events Stress Inventory (A.E.S.E.).

Factor analysis of the results identified four general areas of stress. The suggested underlying theme--"Teacher Conflict"--was rated the most stressful of all. This was defined as unsatisfactory performance, refusal to follow

policies, and forced resignations. Four of the five highest-ranked events concerned conflicts with teachers.⁹¹ The administrative remedies to staff management problems were reported to be stressful in themselves. Such things as reduction in staff, teacher dismissal, and evaluation were identified as common causes of job stress. Interestingly, the researchers discovered that teacher conflict became less stressful as one moved from elementary to high school, but student conflict stressfulness increased as one moved from elementary to middle to high school.

The second most stressful theme identified by the factor analysis was that of "Helplessness/Security". These were conditions which the principal had little power to change or few resources to do so. Threats to job security or status appeared in several of the highest rated responses.

The suggested underlying theme, "Student Conflict" was more of a problem for high school than elementary school administrators. This factor included such things as student fights, meeting with rebellious students, etc.

The fourth theme, "Management Tasks/Problem Solving" was made up of routine management tasks and problems to be solved. "Events perceived as associated with low amounts of stress were routine, expected, and accepted duties of administration in schools."⁹² Specific low stress items were the following:

managing the school budget, lunchroom supervision,
working with school district central administration,
dealing with custodial/non-teaching staff, and inservice

meetings for administrators.⁹³

The authors reported that small schools seem to be less stressful than larger ones; nonpublic schools less stressful than public schools; rural schools less stressful than urban ones; and affluent schools less stressful than poorer ones.

Walter H. Gmelch and Boyd Swent (1981) identified five general areas of administrative stress.⁹⁴

1. Administrative constraints deal with stressors related to time, meetings, work load, and compliance with federal, state and organizational policies
2. Administrative responsibility relates to tasks characteristic of nearly all administrative positions and includes supervision, evaluation, negotiations, and gaining public support for school programs
3. Interpersonal relations include resolving differences between parents and school and between staff members, and handling student discipline
4. Intrapersonal conflict centers around conflicts between performance and one's internal beliefs and expectations
5. Role expectations deal with stress caused by a difference in the expectations of self and the various publics with which administrators must deal. These publics include students, parents, colleagues, board of education, supervisors and members of the community.⁹⁵

In a paper presented to the American Educational Research Association the following year (March, 1982) Gmelch and Swent elaborated on their research into these five general areas of administrative stress. Using results from their survey of 1,211 members of the Confederation of Oregon School Administrators, the authors categorized the stressors identified by the respondents into the five stress factor

areas.⁹⁶

Gmelch and Swent found that the category, "Administrative Constraints" was most stressful with a mean score of 2.78.⁹⁷ Five of the top ten stressors were from the "Administrative Constraints" category:

1. Complying with state, federal, and organizational rules and policies
2. Feeling that meetings take up too much time
3. Trying to complete reports and other paper work on time
8. Feeling that I have too heavy a work load, one that I cannot possibly finish during the normal work day
10. Being interrupted frequently by telephone calls⁹⁸

There was, however, more variance reported for the stressors perceived to be most stressful.

The other four factors were closely grouped: "Administrative Responsibility" had a mean score of 2.45, "Interpersonal Relations"--2.39, "Intrapersonal Conflict"--2.29, and "Role Expectations"--2.10.⁹⁹ The "Administrative Responsibility" factor was shown by two of the top ten stressors, while only one came from the "Interpersonal Relations" category. Two of the ten highest stressors were from "Intrapersonal Conflict", but this factor also had three of the lowest ranked stressors. None of the top ten stressors were representative of the "Role Expectations" factor, yet four of the lowest ranked stressors were.

Post hoc analysis revealed that significant differences were found among administrative positions for all factors except "Role Expectations". For example, junior high vice-principals perceived significantly more stress from

"trying to resolve parent/school conflicts" than did the assistant superintendent or central office staff.¹⁰⁰ Junior high principals perceived more stress from "evaluating staff members" than high school vice-principals, assistant superintendents, or central office staff.¹⁰¹ On the other hand, superintendents and assistant superintendents were more troubled by rules and regulations than other administrators. Vice-principals from high schools and junior high schools felt less stress from "Administrative Responsibilities" than did superintendents. Yet, these same vice-principals as well as principals perceived greater stress from the "Interpersonal Relations" factor than did superintendents and other central office staff.

In a somewhat surprising finding, Gmelch and Swent reported that secondary administrators had higher mean scores for every factor except "Administrative Responsibility". This supports the contention that secondary administration is more stressful than elementary administration and contradicts the findings of Schuetz.

In his 1982 study of elementary and secondary principals in a large Canadian city, Kenneth R. Washington did not deal with the issue of elementary vs. secondary levels of stress in the principalship, but he was able to identify and rank six stressful conditions and problems based on the responses of elementary and secondary principals. These were the following:

1. Central administration demands

2. Supervision of teachers
3. Relationships with peers
4. Government regulations
5. Student problems
6. Instructional problems¹⁰²

Washington found that role conflict was positively correlated with self-reported measures of job stress. The principal's job demands a high degree of creative problem-solving and decision-making, yet these things are associated with role conflict and conflict experiences. Thus, Washington believed that middle management roles, such as the principalship, are subjected to the greatest amount of tension.

Washington's belief was supported by his research findings. Seventy-seven percent of the respondents indicated that they experienced more stress than most people.¹⁰³ More than one-third (thirty-four percent) admitted that the pressure of the principalship got so great that they sometimes could not cope with it.¹⁰⁴

In direct contradiction to the previous studies cited, some of the most recent research refutes the contention that the principalship is a highly stressful position. Dick Gorton (1982) and James P. Farkas (1983) reported that, based on their research findings, the principalship was not the "pressure-cooker" earlier researchers had described.

Gorton's study surveyed a statewide sample of high school principals and asked them to rate the degree to which each of twenty-seven potentially stressful aspects of the work situation actually caused them stress.¹⁰⁵ The six job factors which seemed to contribute the most stress were the

following:

1. Feeling that I have too heavy a work load--one that I cannot possibly finish during the normal work day
2. Imposing excessively high expectations on myself
3. Feeling I have to participate in work activities outside of the normal working hours at the expense of my personal time
4. Having to make decisions that affect the lives of individual people that I know (colleagues, staff members, students, etc.)
5. Complying with state, federal and organizational rules and policies
6. Trying to resolve parent/school conflicts¹⁰⁶

Gorton reported a number of startling findings. First, the results indicated that most high school principals did not appear to be experiencing much stress. The reporting scale ranged from "rarely" to "frequently", but the mean response was "sometimes". However, an important minority of principals (between six and thirty-two percent) did report "frequent stress" for certain aspects of their job.¹⁰⁷

A second finding was that, for the most part, there was no significant relationship between the size of the school and the principal's level of stress. Nor was there a significant relationship between the number of people supervised/evaluated and the amount of stress experienced by the principal. In fact, what relationship there was suggested that the larger the school and the greater the number of people supervised, the less the stress levels of the principal. This agreed with the findings of Schuetz and may be partially explained by the presence of assistants and vice-principals in larger high schools. However, Gorton felt that this was not necessarily the entire answer

because this same inverse relationship between size of school and level of principals' stress was found at the elementary level, where typically fewer assistants are present to aid the principal.

In direct contrast to the findings of Kathryn Padovano Hughes, Gorton found that the older the principal and the more years in the position, the more likely that a higher level of stress would be reported.

The study also found that the more hours a principal worked during the week, the more likely he/she reported higher levels of stress. Gorton's study, therefore, supported the position that quantitative work overload is a stressor, as reported by Caplan and French and others.

James P. Farkas investigated "the degree of occupational stress that public school principals perceive in their work setting," and assessed "the relative impact of the variables of (1) locus of control and (2) situational powerlessness on their levels of stress."¹⁰⁸ The author surveyed 302 elementary and secondary school principals from four school districts located in two western New York counties.¹⁰⁹

Farkas found that the responding principals, as a group, perceived themselves to be operating at a low level of stress. The mean stress score was approximately two and one quarter standard deviations below the theoretical mean of fifty for the scale.¹¹⁰

In general, principals perceived themselves as the

ones who were "in control". This was true regardless of the setting, building level, or gender (the demographic variables in this study). However, a significant inverse relationship was discovered between the locus of control and the respondents' level of perceived occupational stress. Principals with a low locus of control perceived greater job stress than those with higher internal locus of control.

Respondent principals generally perceived a low degree of situational powerlessness in their work settings. However, there was a modest, but significant, association between elementary level and powerlessness. The data suggested that situational powerlessness was a significant component of the stressfulness of work situations. Despite this, school level (elementary vs. secondary) showed no significant differences in levels of stress. This is not consistent with the findings of Gmelch and Swent who reported that secondary administration was more stressful nor does it support the research of Schuetz whose research indicated that elementary principals were more stressed than their counterparts in secondary schools.

Farkas's study found that school setting did not have a significant influence on the level of stress. This contradicted the findings of Washington and of Koff, Laffey, Olsor, and Cichon who maintained that urban schools are inherently more stressful than non-urban schools.

Jack L. Brimm (1983) administered the thirty-five item stress questionnaire developed by Swent and Gmelch to school

personnel in Tennessee.¹¹¹ The sample group was made up of 258 elementary principals, 75 junior high principals, 121 secondary principals, 61 superintendents, and 94 supervisors.¹¹²

There were important differences among administrators with regard to individual stressors. Superintendents tended to be more stressed by budgeting and collective bargaining than principals. Having to make decisions which affected the lives of people seemed to be more stressful for principals. Junior high and especially high school principals were stressed by activities outside their normal working hours. Secondary principals were more stressed than either elementary or junior high principals by having too heavy a workload to finish during the normal day.

The ten most stressful administrative tasks for all Tennessee school administrators (considered as a group) are as follows:

1. Complying with state, federal, rules and policies
2. Having to make decisions that affect the lives of people
3. Trying to resolve parent-school conflicts
4. Evaluating staff members' performance
5. Being interrupted frequently by telephone calls
6. Trying to complete reports and other paper work on time
7. Trying to gain public approval for school programs
8. Feeling that I have to participate in school activities outside normal working hours
9. Feeling that the progress on my job is not what it should be
10. Feeling that I have too heavy a work load to finish during the normal work day¹¹³

Summary

The research with respect to stress and public school principals has come full circle. Charles Wilson reported in 1962 that high school principals, as a group, were not highly stressed. Two of the most recent studies, Dick Gorton's study of high school principals (1982) and James P. Farkas's research into the stress levels of elementary and secondary principals (1983) agreed with Wilson's earlier conclusions in that both reported high school principals did not appear to be experiencing much stress. The bulk of the literature reporting studies conducted after 1962 but before 1982 either determined just the opposite or, based on other studies, assumed the principalship to be a highly stressful position. Vetter (1976); Gmelch (1977); Gmelch, Koch, Swent, and Tung (1977); Larson (1977); Schuetz (1980); Giammatteo (1980); Piatt (1981); Hughes (1981); Vanderpol (1981); Koff, Laffey, Olson, and Cichon (1981); and Washington (1982) all reported that the principalship was stressful.

Differences existed among these researchers with regard to the relative degree of stress in elementary vs. secondary school principals and large vs. small school principals. Schuetz (1980), for example, found elementary school principals exhibited higher stress levels than secondary principals. Swent and Gmelch's studies indicated just the opposite. Farkas, on the other hand, found no significant differences in levels of stress of elementary and secondary principals.

In reporting the effects of school size on the principal's stress level, Koff, Laffey, Olson and Cichon reported that small schools seemed to be less stressful than larger ones. Schuatz found principals in medium-sized schools (301-600) to be the most highly stressed. Gorton reported no significant relationship between size of school and the principal's level of stress, but what relationship existed indicated that larger schools had less stressful principals.

The demographic variable, school setting produced modest disagreement among the researchers. Koff, Laffey, Olson, and Cichon agreed with Washington in reporting that urban schools were more stressful for principals than non-urban schools. However, Farkas's research indicated that school setting did not have a significant influence on the level of stress.

In the identification of stressors, there was far less disagreement among researchers. Role conflict was determined to be a stressor for all types of workers by Kahn, Caplan and French, McLean, and Yates. Vetter, Gmelch, Schuatz, Giammatteo, and Washington confirmed that this stressor applied specifically to principals.

Work overload was identified as a common source of stress by Kahn, Caplan and French, McLean, Yates, Kiev and Kohn, and Friend. All of the following reported that this was a stressor for principals: Vetter, Gmelch, Swent and Gmelch, Schuatz, Giammatteo, Piatt, Hughes, Gorton, and Brimm.

Role ambiguity refers to the job tasks being unclear.

Kahn; Caplan and French; McLean; Caplan, Cobb, French, Harrison, and Pinneau; and Yates reported this problem existed for all kinds of workers. Kiev and Kohn reported this stressor as affecting business executives. Goldhammer, Gmelch, Giammatteo, and Piatt determined role ambiguity to be a source of stress which specifically affected principals.

Being responsible for others or having to make decisions which affect the lives of other people was reported as stressful for decision-makers in general by Caplan and French; McLean; Caplan, Cobb, French, Harrison, and Pinneau; Yates; Greenwood and Greenwood; and Russek. That this stressor directly affected principals was determined by Gmelch; Swent and Gmelch; Gmelch, Kech, Swent, and Tung; Schuetz; Hughes; Gorton; and Brimm.

Poor relations with others in the work place was a general stressor, regardless of the kind of job or the physical surroundings. This was indicated by Caplan and French, McLean, and Yates. Wilson; Koff, Laffey, Olson and Cichon; Gmelch and Swent; and Washington reported that this stressor affected principals, as well.

Evaluation of staff members' performance was identified by McLean as a stressful event for the workers being evaluated. Yet, it is also stressful for the principal who must do the evaluating. This was reported by Swent and Gmelch, Giammatteo, Vanderpol, and Brimm.

Finally, three stressors were identified in the literature which categorically applied to principals, but not to

workers in general. Collective bargaining by teachers was found to be a stressor for principals by Gmelch and by Brimm (although Brimm found that this affected superintendents more than principals). Federal and state mandates were sources of stress for principals according to Gmelch, Swent and Gmelch, Vanderpol, Washington, Gorton, and Brimm. The demand by citizens for increased involvement in decision-making was cited as a stressor by Gmelch, Vetter, Swent and Gmelch, and Vanderpol.

Job Satisfaction/Dissatisfaction

General Sources of Workers' Satisfaction/Dissatisfaction

The literature is replete with studies, articles, and books pertaining to sources of job satisfaction and dissatisfaction for workers, in general. The focus of the present study, however, is on the sources of job satisfaction/dissatisfaction for elementary and secondary school principals. Thus, the bulk of the literature in the next portion of the chapter will pertain specifically to principals.

However, there are two researchers whose work should be discussed despite the fact that neither dealt directly with school administration. The Motivation-Hygiene Theory of Frederick Herzberg provided the theoretical foundation upon which the present study was organized. The work of Dr. M. Scott Myers at Texas Instruments Corporation provided an environment for the practical application and refinement of Herzberg's ideas and theoretical constructs. It was the

100 question survey instrument developed by Dr. Meyers which served as the model for one of the instruments used in the present study.

The Motivation-Hygiene Theory

In 1959, Frederick Herzberg led a research team which conducted two pilot studies concerning employee job satisfaction and dissatisfaction. The second study consisted of 200 semi-structured interviews with engineers and accountants at nine job sites in the Pittsburgh area.¹¹⁴

The content of the interviews was analyzed using an a posteriori approach. This simply means that the categories of analysis were extracted from the material, itself. The information from the interviews was broken down into 5,000 "thought units" and typed on 3" x 5" index cards.¹¹⁵ Two staff members, working independently sorted the cards into piles. Once differences between the two categorical schemes were worked out, detailed analysis of the sequence of events on each card was made and a total of 476 sequences were identified and coded.¹¹⁶

The results of this study show that five factors stand out as strong determiners of job satisfaction--achievement, recognition, work itself, responsibility, and advancement--the last three being of greater importance for lasting change of attitudes.¹¹⁷

The first set of factors, termed "satisfiers", described the worker's "relationship to the context or environment in which he does his job".¹¹⁸ The "satisfiers" or "motivator events" contributed to the worker's psychological

growth or self-actualization.

An entirely different set of factors was associated with job dissatisfaction events. These were "company policy and administration, supervision, salary, interpersonal relations and working conditions".¹¹⁹ All of these so-called "dissatisfiers" consistently produced short-term changes in job attitudes. The "dissatisfiers", which were also termed "hygiene" or "maintenance" events, were only significant because of their potential to cause the employee unpleasantness.

The factors which determine job satisfaction and job dissatisfaction are separate and distinct from one another. They are both uni-directional and neither is the obverse of the other.

Thus, the opposite of job satisfaction would not be job dissatisfaction, but rather no job satisfaction; similarly, the opposite of job dissatisfaction is no job dissatisfaction, not satisfaction with one's job.¹²⁰

Satisfying an employee's hygiene needs returns him to a psychological zero point. He will no longer experience job dissatisfaction, but there is no guarantee that he will experience job satisfaction since job satisfaction is determined by an entirely different set of factors.

In nine subsequent replications of Herzberg's original study conducted on different sample groups, two additional motivator factors were identified as being "possibility of growth" and "a task centered motivator"; three additional hygiene factors were identified as being "status", "job

security" and "effect on personal life".¹²¹ All of these studies provided further verification of the Motivation-Hygiene Theory.

The Motivation-Hygiene Theory At Texas Instruments

One of the replications was conducted by M. Scott Myers, Manager of Personnel Research, Corporate Staff, for Texas Instruments. Beginning in 1961, research began at Texas Instruments into the sources of employees' satisfaction and dissatisfaction using the interview pattern developed by Herzberg and his associates. Five types of workers took part in the study; scientists, engineers, manufacturing supervisors, technicians, and assemblers.¹²²

Myers changed the five types of motivators originally identified by Herzberg somewhat. Three remained the same-- "achievement", "the work itself", and "responsibility". "Recognition" was occasionally referred to as "earned recognition" and "advancement" was sometimes labeled as "growth". The categories of motivational needs remained consistent with Herzberg's ideas, however.

Myers found that achievement accounted for more favorable responses than any other category (thirty-three percent).¹²³ It was the highest ranked motivator for scientists, engineers, and female assemblers. Manufacturing supervisors rated advancement, the possibility of growth, and responsibility as their greatest sources of motivation. Hourly rated male technicians attached high motivational

importance to responsibility and advancement.

The dissatisfiers or hygiene needs of employees were identified by Myers as "Maintenance Needs". In the reports of the research at Texas Instruments, only "company policy and administration" was borrowed directly from Herzberg's original terminology. Herzberg's category, "supervision" was broken down further by Myers into "competence of supervision" and "friendliness of supervision". Herzberg's term, "salary", was referred to as "pay". "Interpersonal relations" became "peer relations". "Working conditions" was not mentioned as a category in the reported research, however, the category--"physical" in Myers' conceptual design seemed to most nearly parallel this concept.

When all types of employees were considered as a group, company policy and administration produced the greatest number of negative reporting sequences. This held true in four of the five types of workers surveyed--scientists, engineers, manufacturing supervisors, and male technicians. Only female assemblers reported a different factor as the most frequent source of job dissatisfaction. Surprisingly, that factor was achievement which was also the most frequent source of positive feelings about the job. The finding that achievement was a source of dissatisfaction reflected a lack of achievement or the failure to achieve. Myers, therefore, added "failure", as the opposite of achievement, to the list of dissatisfiers.

Dr. Myers developed a conceptual model which identified

six general types of employee maintenance needs:

1. Physical - work layout, job demands, work rules, equipment, location, grounds, parking facilities, aesthetics, lunch facilities, rest rooms, temperature, ventilation, lighting, noise.
2. Social - work groups, coffee groups, lunch groups, social groups, office parties, ride pools, outings, sports, professional groups, interest groups.
3. Status - job classification, title, furnishings, location, privileges, relationships, company status.
4. Orientation - job instruction, work rules, group meetings, shop talk, newspapers, bulletins, handbooks, letters, bulletin boards, grapevine.
5. Security - fairness, consistency, reassurance, friendliness, seniority, rights, grievance procedure.
6. Economic - wages and salaries, automatic increases, profit sharing, social security, workmen's compensation, unemployment compensation, retirement, paid leave, insurance, tuition, discounts.¹²⁴

Although maintenance needs are peripheral to the task and have little motivational value, "their fulfillment is essential to the avoidance of dissatisfaction".¹²⁵ "Effective job performance depends on the fulfillment of both motivation and maintenance needs."¹²⁶ However, Myers pointed out that in a work environment capable of inspiring high motivation, maintenance factors would diminish in importance.

...in a situation of satisfied motivation needs, maintenance factors have relatively little influence either as satisfiers or dissatisfiers. However, the removal of opportunity for meaningful achievement sensitizes the individual to his environment and his perception of maintenance factors becomes colored by a readiness to find fault.¹²⁷

As a result of the research conducted by M. Scott Myers, an Employee Attitude Survey was developed as a means of identifying which motivational and maintenance needs of Texas

Instrument employees were not being met. The survey was then administered annually to ten percent samples from each department in the company.¹²⁸ The use of this survey instrument was a departure from the interview method used by Herzberg and by Myers, himself, in earlier research.

Sources of Job Satisfaction/Dissatisfaction for Principals

This section reports on the literature pertaining to the sources of job satisfaction and job dissatisfaction for elementary, junior-high, and secondary principals. Although research was conducted earlier, the previous twenty years was arbitrarily selected as the time span for consideration beginning with Rock and Hemphill's national survey of junior-high school principals conducted during the 1964-65 school year.

As with the literature on job stress, the research reported in this section was concerned with organizational variables and their impact on job satisfaction/dissatisfaction rather than with individual personality variables.

Although such individual personality variables have been shown to be related to satisfaction, their importance has been overshadowed in recent empirical work by organizational variables. Research suggests that organizational factors are as, or more important empirically than are personality variables in determining job satisfaction.¹²⁹

Rock and Hemphill (1966) reported on a survey of 4,496 junior high school principals from across the United States which was conducted during the 1964-65 school year.¹³⁰

In response to the question, "How much self-satisfac-

tion (that is the feeling of being able to use one's unique capabilities, of realizing one's potential) does your position as a principal provide for you?" The results were as follows:

Very little self-satisfaction	2%
Some self-satisfaction	8%
A moderate amount of self-satisfaction	24%
Considerable self-satisfaction	49%
Very much self-satisfaction	18%
No response	0% ¹³¹

Interestingly, this same pattern of job satisfaction held whether the per pupil expenditure was low, medium, or high.

In response to the question, "How much prestige does your position as a principal give you in the community where your school is located?" The responses were the following:

Very little prestige	3%
Some prestige	13%
A moderate amount of prestige	50%
Considerable prestige	30%
Very much prestige	4%
No response	0% ¹³²

The study was more concerned with demographic and individual characteristics of junior high principals and did not attempt to identify the determinants of job satisfaction for these administrators, other than providing them with prestige in their communities.

Gross and Napior (1967) conducted a study in cooperation with the U.S. Office of Education and the Department of Health, Education, and Welfare as part of the National Principalship Study. Data were obtained from a national cross-section of 382 men principals from forty-one cities in all regions of the United States during the 1960-61 school

year.¹³³ Personal interviews as well as other techniques were used to gather the data.

The study measured two factors, the intrinsic job satisfaction and the career satisfaction of male principals. Intrinsic job satisfaction, designated IJS, was defined as "the degree of gratification principals derive from performing their managerial tasks".¹³⁴ Career satisfaction was defined as "the degree of gratification principals derive from having chosen educational administration as a career."¹³⁵

Intrinsic job satisfaction was measured by the principals' responses to the Enjoyment of Work Activities Instrument. The following hypotheses regarding IJS were supported by the empirical findings of the study:

1. The more autonomy a principal is granted by his superordinates, the greater his IJS.
2. The greater the role ambiguity a principal perceives in his relationships with his administrative superiors, the lower his IJS.
3. The more effective a principal perceives the decision-making machinery of the higher administration, the greater the IJS of the principal.
4. The more adequate a principal perceives the communications he receives from his administrative superiors, the greater his IJS.
5. The greater the professional stimulation a principal receives from his administrative superiors, the greater the IJS of the principal.
6. The more social-emotional support a principal receives from his administrative superiors, the greater the IJS of the principal.
7. The greater the routine managerial support a principal receives from his administrative superiors, the greater the IJS of the principal.

8. The more importance a principal perceives his administrative superiors attach to his work, the greater the IJS of the principal.
9. The higher a principal's evaluation of the classroom performance of his teachers, the greater his IJS.
10. The more a principal perceives his staff as interested in innovations, the greater his IJS.
11. The greater the personal support a principal perceives he receives from his staff, the greater his IJS.
12. The more the principal perceives that his teachers are committed to their work, the greater the IJS of the principal.
13. The higher a principal's evaluation of his skills as an educational administrator, the greater his IJS.
14. The more equalitarian a principal is in his orientation to others, the greater his IJS.
15. The greater a principal's acceptance of authority, the higher his IJS.
16. The more off-duty time a principal devotes to his job, the greater his IJS.¹³⁶

The following characteristics of the principals' schools were not associated with their IJS: school level (elementary, junior, and senior high), numbers of pupils, region, and socio-economic composition of the student body.¹³⁷

There was no relationship between the number of graduate education courses, number of courses in school administration, or the level of degree achieved and the IJS of the principal. Previous teaching experience, amount of administrative experience, and age were not related to the principals' IJS.

Miskel (1972) used the two-factor theory of motivation (Motivation-Hygiene Theory) developed by Herzberg, Mausner, and Snyderman as the conceptual foundation of his study.

The sample consisted of 153 senior students in the School of Education, 118 administrators, and 432 teachers.¹³⁸ Questionnaires were mailed to administrators and teachers randomly selected from three public school districts located in the same metropolitan region.¹³⁹ However, two of the districts were located in more suburban areas and one was located in the core of the central city.

The results "revealed that principals scored significantly higher on conservative security than did central office administrators" who, as a group, indicated less desire for conservative security.¹⁴⁰ Partial support was found for the assertion that "those individuals who were upwardly mobile would seek intrinsic rewards in unstable situations with less concern for security".¹⁴¹ However, the findings also showed that principals had greater tolerance for work pressure than either senior students in the School of Education or teachers.

It was found that the school districts, themselves, could be placed on a continuum from those which provided primarily extrinsic work motivation (presence of hygiene factors) to those geared mainly to intrinsic work motivation (based on the presence of motivation factors). There appeared to be systematic forces at work in each district which operated to produce a particular motivational profile.

One of the conclusions of the study was that "the current level of demands by students, parents, and teachers and the high turnover rate for administrators both indicate

that administrative positions have low hygiene and high instability".¹⁴²

Iannone (1973) tried to determine the relevancy of Herzberg's theory for a population of principals. The sample group consisted of twenty elementary and twenty secondary school principals belonging to the Central New York Study Council.¹⁴³ The principals were randomly selected and semi-structured interviews were used to gather the data.

The findings indicated that two motivator factors out of the six tested played an important role in a high number of principals' responses. "Achievement and recognition are mentioned with significantly greater frequency in principals' job satisfactions than in principals' job dissatisfactions."¹⁴⁴ The study indicated that principals were highly achievement oriented. "They seem to receive satisfaction from both their achievements on the job and the recognition they receive for these achievements."¹⁴⁵

The achievement stories told by principals were generally concerned with achievement in the following areas:

1. new curriculum programs
2. effective master schedules for the school
3. well-ordered moves from an old building to a new one
4. witnessing students graduating or becoming successful¹⁴⁶
5. writing proposals for federal funds and implementing the programs which resulted
6. convincing teachers to use different methods in the classroom¹⁴⁷
7. receiving passing evaluations of their schools

Recognition for achievements generally took the following forms (see list on next page):

1. verbal praises from superintendents, teachers and parents
2. a vote of confidence from the board of education
3. a dinner or party given in their honor
4. an editorial or a citizen's letter appearing in the local newspaper praising their work
5. a personal advancement either in status or salary
6. a gift from students, teachers, or parents¹⁴⁸

Five hygiene factors out of ten tested played an important role in responses in which the principals reported exceptionally bad job feelings. These were Interpersonal Relations (Subordinates), Interpersonal Relations (Superiors), Interpersonal Relations (Peers), Supervision--Technical, and School District Policy and Administration.

More specifically, the principals' job dissatisfactions were derived from:

1. poor relationships with teachers because of their unwillingness to accept the principal's ideas
2. disappointment in the quality of teachers' work¹⁴⁹
3. poor relationships with students due to the principal's unwillingness to accept student demands
4. disappointment in students' behaviors and attitudes¹⁵⁰
5. poor relationships with teachers and superintendents during periods of collective negotiations¹⁵¹
6. lack of agreement with school board policy and administration...¹⁵²
7. poor relationships with superintendents or other superordinates due to their incompetence or their demands
8. poor relationships with parents who refuse to accept new school programs, criticism, or professional advice directed toward their children
9. failure to achieve on the job¹⁵³
10. failure to receive recognition upon achievement¹⁵⁴

Analysis of the results showed that other people such as a superintendent, school board member, or a parent had control of the principals' extrinsic rewards and punishments. Principals who reported dissatisfaction with school policy and administration tended to relate stories about lacking

the authority and responsibility to run their schools effectively.

Brown (1973) assessed the relationships between the perceived job satisfaction of school administrators and select organizational variables. Five types of needs were examined: security, social interaction, esteem, autonomy, and self-actualization. The sample group consisted of 144 elementary, junior and senior high principals in California as well as directors, assistant-principals, and superintendents.¹⁵⁵

Two categories of minority student concentration were determined for statistical analysis--schools which had fewer than 20% minorities and those with more. Two categories of minority teacher composition were identified as schools with 10% or more minority faculty representation and those with less.

The results showed that the ethnic identification of the administrator did not affect his or her job satisfaction. However, "principals of schools with a 20% or more minority student enrollment enjoyed their positions less than those with fewer minority students."¹⁵⁶ This relationship was found for elementary and junior high school principals, but did not apply to senior high school principals.

The most satisfied principals were junior high school principals with few or no minority students. The elementary school principal with a sizeable minority student enrollment reported the least job satisfaction. Brown reported that

this may be due to the fact that job satisfaction is highly correlated with one's relative degree of power and influence and, for a variety of reasons, principals working in schools with sizeable minority student populations have less power and influence. Therefore their job satisfaction is correspondingly less.

The relationship between job satisfaction and school size was investigated by Anton (1974). Using questionnaires based on the conceptual framework of both Vroom and Herzberg, Anton received responses from 116 secondary principals in the state of Iowa.¹⁵⁷ The data were categorized into two groups based on the principals' school size. The responses from principals of high schools having student enrollment between 250-550 constituted one group and the responses from those working in schools where the enrollment ranged from 551 to 1800 made up the other.¹⁵⁸

The study concluded that principals in smaller high schools showed a significant association between the principal's job satisfaction and achievement, but this did not hold true for principals in larger high schools. On the other hand, a highly significant correlation existed for large school principals' job satisfaction and the work itself, but this did not hold true for principals of smaller high schools.

No significant relationships were discovered between the principal's job satisfaction and any of the following: recognition, responsibility, advancement, and growth. There were, however, positive correlations between all of these

factors and job satisfaction, but none were significant at the .05 level. Overall, job satisfaction was found to be significantly higher for principals of large high schools.

The study contradicted several of Herzberg's basic premises. For example, Herzberg had identified supervision as a potential source of dissatisfaction, yet this study found supervision to be positive in relation to the principal's job satisfaction for large schools and when all schools surveyed were considered as a group. The Herzberg dissatisfier, relationships with superiors, was found to be a positive factor for principals in large high schools and contributed to job satisfaction. Relationships with peers, personal life, and relationships with subordinates, all of which Herzberg classified as dissatisfiers, were found to yield significant results, but of a positive nature. No significant associations were discovered for the following dissatisfiers: district policy and administration, working conditions, salary, status, and security.

Johnson (1975) gathered information from principals and superintendents in an attempt to understand job satisfaction among principals. The sample group consisted of 506 public school principals and 280 superintendents from Northern Illinois.¹⁵⁹ A total of 146 superintendents and 393 principals responded, of which 218 were elementary, 60 junior high, and 115 high school principals.¹⁶⁰

The questionnaire, which was developed by the researcher, measured the Herzberg motivation factors of achievement,

recognition, advancement, responsibility, work itself, and possibility of growth. The hygiene factors considered in the study were supervision, company policy, working conditions, interpersonal relations, status, job security, salary, and factors in personal life.

Johnson concluded that "school principals perceived Hygiene factors to be more accessible to them in their job roles than were the motivation factors."¹⁶¹ (Accessibility referred to the likelihood that the Motivation or Hygiene factors were actually attainable by the principal on the job.) This was true regardless of the type of principal-- elementary, junior high, or high school. Principals found accessibility to Hygiene factors high enough to prevent job dissatisfaction.

All three types of principals perceived Hygiene factors to be more important than Motivation factors in their job roles. However, "school principals perceived the Importance of Hygiene factors to be greater than the Accessibility of Hygiene factors."¹⁶² Elementary, junior high, and senior high school principals clearly desired more attention be given to Hygiene or job environment factors. Such principals, tended, primarily, to be Hygiene seekers, not motivation-seekers.

As with Hygiene factors, the principals perceived Motivation factors to be more Important than Accessible. So, although the Motivation factors were sufficiently Accessible to assure job satisfaction, they could be im-

proved.

Superintendents accurately perceived what the principals' responses were regarding Hygiene Accessibility, Motivation Accessibility, and Hygiene Importance.¹⁶³

However, superintendents did not accurately perceive what the principals' responses were regarding Motivation Importance. Superintendents perceived that principals would rate Motivation Importance factors higher than was actually the case.¹⁶⁴

Another study utilizing Herzberg's Motivation-Hygiene Theory was conducted by Schmidt (1976). The sample consisted of the principal, his immediate supervisor, and his immediate subordinate in each of twenty-five high schools selected at random from the 132 high schools in the Chicago suburban area.¹⁶⁵ A total of seventy-four administrators were interviewed using the Critical Incident technique developed by Herzberg.¹⁶⁶ However, unlike Herzberg, Schmidt required interviewees to complete a written response addendum which was used as a supplement to the interviewing procedures.

The results obtained indicated strong support for the Motivation-Hygiene Theory as it was applied to suburban high school administrators. An examination of the data revealed that "the motivator factors were associated with positive sequences and hygiene factors were associated with negative sequences of events."¹⁶⁷ Nine factors had frequencies sufficiently large for analysis and of these, five were significant in the predicted direction ($p < .01$): recognition, achievement, advancement, interpersonal relations with subordinates, and policy and administration. The remaining

four factors (responsibility, interpersonal relations with peers, interpersonal relations with superiors, and supervision) were significant at the .05 level.

Just as Iannone had found earlier, Schmidt's study determined that achievement and recognition were major motivating forces for administrators. However, Schmidt's study identified two additional motivators, advancement and responsibility, which were not found to be significant by Iannone. The findings that interpersonal relations with peers, subordinates, and superiors, district policy and administration, and supervision are major sources of job dissatisfaction agrees completely with the findings of Iannone.

Several factors were not tested because of the small frequencies reported for each--work itself, salary, possibility of growth, status, working conditions, personal life, and job security. The demographic characteristics investigated were found to have no effect on the Motivation-Hygiene Theory.

The analysis did, however, shed some doubt on the portion of Herzberg's theory which states that satisfaction received from hygiene factors is of short duration as is dissatisfaction received from motivator factors. This was not found to be true for the population of administrators studied.

Peterson (1977) tried to determine what relationship, if any, existed between stress and job satisfaction based

on a sample of 110 elementary principals randomly selected from urban and suburban districts in California.¹⁶⁸ Job satisfaction was measured using Brayfield and Rothe's Index of Job Satisfaction and major areas of stress were identified, categorized and measured using the Heimler Scale of Social Functioning.

Peterson found that, in general, elementary principals do not have a high amount of job stress, but do have a high degree of job satisfaction. "Sixty out of eighty, or seventy-five percent scored in the upper twenty-five percent of the total range."¹⁶⁹ The principals liked the people they worked with and felt that they were in the right kind of work.

A positive relationship (.36) between the absence of stress and the principals' perception of job satisfaction was discovered.¹⁷⁰ This shows some correlation between the absence of stress and the perception of job satisfaction, but due to the attenuation of ranges, no high statistical significance was attributed to these results.

Poppenhagen (1977) reported on a study of 234 elementary principals, 76 junior high/middle school principals, and 91 senior high school principals in Minnesota.¹⁷¹ In general, the principals who responded to the mailed survey perceived themselves as being relatively free from job related tension and "much" satisfied with their current position, although relatively few perceived themselves as being "Totally" satisfied.

In only one case was there a significant difference attributable to the difference in school levels of the respondents.

A significant number of elementary school principals felt that their job interfered less frequently with their family life than did junior/middle and senior high principals.¹⁷²

Job interference with personal and family life was more of a problem for junior and senior high school principals than for elementary school principals.

Gorton and McIntyre (1978) reported on a 1977 study of sixty senior high school principals who had been randomly selected from across the United States.¹⁷³ Based on selection criteria applied to a larger original random sample, the sixty chosen were designated as "effective principals".

The data showed that most of the principals in this study were not planning to stay in the principalship. "This may suggest that the job isn't as satisfying as it might be."¹⁷⁴ Principals cited all of the following as sources of job dissatisfaction: lack of clarity in their job description; lack of administrative and secretarial support; too much paper work, red tape and bureaucracy; unnecessary meetings; and not enough autonomy at the building level. The principals in this study indicated that they were bothered by incompetent and uncommitted teachers; "unprofessional teacher conduct such as gossiping or bickering; student misbehavior; student dropouts; unfair parent, teacher, and board expectations; and inadequate funds and facilities."¹⁷⁵

The constraints identified most frequently by the principals were the physical limitations of the building they were in, the limited budget under which they worked, and community pressures and interferences.¹⁷⁶

Other constraining factors mentioned included the district master contract, collective bargaining, federal mandates, court decisions which tied the hands of school people, lack of central office support, and the general feeling of the public towards education. "Interruptions in the work schedule" was identified as a constraint, although it was cited less frequently than others. These interruptions placed demands on the principals' time and caused them to be less productive.

In regard to job satisfaction, almost all of the principals felt that the principalship offered good opportunities for leadership. A common theme noted in many of the principals' comments was "that the principalship gives an individual a good opportunity to influence people and to bring about change and improvement in the educational program of the school."¹⁷⁷

Several factors were named as contributing to the principal's effectiveness:

quality and support of the faculty, central office support and trust, co-operative students (good kids), parental and community support and cooperation, autonomy of the principal (no interference from central office), competent administrative staff, competent secretary, good financial support (adequate resources), high status given the principalship.¹⁷⁸

Stefanski (1978) tested Herzberg's Motivation-Hygiene Theory as it pertained to a sample of forty public high

school principals and thirty-nine immediate superiors from three Pennsylvania counties.¹⁷⁹ Using both the Critical Incident interview technique developed by Herzberg and a written survey instrument, the Minnesota Satisfaction Questionnaire, Stefanski found that "principals indicated motivators as a group were significantly greater indicators of job satisfaction than were hygienes at the .05 confidence level".¹⁸⁰ "Principals indicated hygienes as a group were significantly greater indicators of job dissatisfaction than were motivators at the .05 confidence level."¹⁸¹ Both of these findings give strong support to Herzberg's Theory and its application to educational administrators.

Using 20% as the criterion level, Stefanski combined the data from both the interviews and the questionnaires to produce the following as major indicators of job satisfaction: Achievement, Recognition and The Work Itself. In earlier studies Iannone and Schmidt had determined that achievement and recognition were major motivating forces for school administrators.

The major indicators of job dissatisfaction were lack of good interpersonal relations and salary. Poor interpersonal relations was also identified as a major source of job dissatisfaction by both Iannone in his study and by Schmidt.

No significant correlation was found between the principal's overall satisfaction and the immediate superior's rating of the principal's performance.

In a comparative study of male and female high school principals, Paddock (1979) found that for the categories of job security, prestige, and self-fulfillment, women principals exhibited greater job satisfaction than that of their male counterparts.¹⁸² "Women principals also indicated more frequently than did men that, if given a second chance, they would make the same career choice."¹⁸³

Miller (1979) investigated the relationship of role conflict and role ambiguity to job satisfaction as reported by elementary school principals in thirteen county school systems in Central Florida.¹⁸⁴ Two hundred ninety-two responses were obtained in the following proportions: 28.8% urban; 33.6% suburban; 13.7% rural; 24% small town.¹⁸⁵

The results of this study were somewhat unresponsive of Kahn's theories as expressed in the book, Organizational Stress: Studies in Role Conflict and Ambiguity. For example, role conflict was not associated with low levels of job satisfaction. However, "as with earlier research, high levels of role ambiguity were associated with lower levels of job satisfaction."¹⁸⁶ "This study supports the idea that role ambiguity is more highly related to job satisfaction than is role conflict."¹⁸⁷

The following activities had a relatively low degree of satisfaction for principals participating in the study:

- a. Evaluating certificated personnel
- b. Establishing and maintaining student records
- c. Accounting for all income and expenditures
- d. Reporting school data to the district¹⁸⁸

The following activities were associated with a relatively high degree of satisfaction among principals in this study:

- a. Assigning certificated personnel
- b. Facilitating community participation in the life of the school
- c. Scheduling student classes and activities
- d. Developing and/or selecting curriculum
- e. Revising curriculum
- f. Developing and improving instruction¹⁸⁹

In June 1979, The National Elementary Principal printed the results of an opinion poll which that journal had conducted. Responses were received from 194 elementary principals from across the United States.¹⁹⁰

Over two-thirds of the respondents (sixty-eight percent) say they find the principalship less satisfying now than it was five years ago, and almost as many (sixty-three percent) report that they have thought seriously about quitting the job in the last six months.¹⁹¹

The number one problem was identified as federal and state mandates and the "red tape" they require. Other problems were the following:

1. administering 'letter of the law' contracts for militant teachers
2. carrying an overload of responsibility without the authority to go with it
3. dealing with budget constraints
4. responding to pressure from parents and the community
5. juggling increased demands on time
6. handling student discipline
7. facing a growing lack of public respect¹⁹²

The underlying theme which led to job dissatisfaction on the part of the principals was "that the constraints of the job tend to overshadow the children".¹⁹³ The two main forces which have produced a detrimental effect on the principal's authority in the school were identified as teacher

unionism and federal regulations. Sixty percent said they felt "burned out" and almost half of the respondents indicated that they would not be principals again if they had their lives to live over. These results do not agree with the findings of Peterson (1977) who reported a relatively high degree of job satisfaction enjoyed by elementary principals.

The National Association of Secondary Principals also conducted a survey during 1979. From a larger random sample, 4,766 secondary school principals responded.¹⁹⁴

"Excessive Time Demands" was the greatest source of job dissatisfaction for principals in small, medium, and large schools and for middle school, senior high, and six year school principals. Part of the excessive time demands made on principals have been directly caused by federal and/or state mandates for implementation of laws.

The N.A.S.S.P. questionnaire probed thirty-five potential causes of attrition.¹⁹⁵ Eight were considered noteworthy and many of these repeated issues and problems identified by elementary principals in the National Elementary Principal opinion poll. The eight noteworthy potential causes of attrition were the following:

1. Excessive Time Demands (56.5%)
2. Emotional Health (Stress) (52.5%)
3. Heavy Work Load (50.4%)
4. Desire for Change (40.8%)
5. Fatigue (37.0%)
6. Lack of Support from Superiors (35.9%)
7. Constraints Caused by Courts/Legislation (35.7%)
8. Lack of Teacher Professionalism (35.2%)¹⁹⁶

Several underlying themes were detected by DeLeonibus and Thomson in the survey results. First, there has definitely been a decline in the power and autonomy of principals. Second, a significant erosion of public commitment to education has taken place. This was shown in three factors cited by principals: lack of parental support for program (cited by 25%); lack of tax funds (cited by 22%); and insufficient budget/resources (cited by 27%).¹⁹⁷ Finally, the formal teacher contract has placed constraints on principals with regard to assignment of teachers and length of work day.

Rogus, Poppenhagen, and Mingus (1980) conducted a study which tried to determine if there were significant differences between elementary, junior high and senior high school principals relative to five specific factors, one of which was job satisfaction. Ninety-three elementary principals, ninety-three junior high principals, and 101 senior high school principals, all from Ohio, were surveyed.¹⁹⁸

The data indicated that elementary, junior high, and senior high school principals in urban districts were generally satisfied with their positions. Differences resided only in the suburban districts. Sixty-two percent of suburban principals were dissatisfied with the amount of leisure time they had and sixty-nine percent of the suburban principals were dissatisfied with the amount of time available for their families.¹⁹⁹

For the variable of "relationship to students", one hundred percent of the suburban elementary principals ex-

pressed satisfaction; eighty-one percent of the suburban junior high principals were satisfied, but only fifty-nine percent of the suburban senior high school principals were satisfied with their relationship to students.²⁰⁰

....More than eighty-five percent of principals at all levels expressed minimum satisfaction on the hygiene factors of salary, fringe benefits, and the motivational factors of professional achievement, opportunities for professional growth, and the challenge of the job.²⁰¹

Relationships with faculty and students and perceived competency to do the job effectively were cited as sources of job satisfaction by over seventy percent of the respondents on each level. Relationships with other principals were cited as a source of satisfaction by over seventy percent of the principals.²⁰²

Nineteen percent of principals expressed dissatisfaction with the recognition they receive; twenty-five percent of the principals expressed dissatisfaction with their influence upon district policy. Sixteen percent of the principals expressed dissatisfaction with job security.²⁰³

Based on a careful examination and analysis of the data from N.A.S.S.P.'s 1979 survey, "The High School Principalship", Herlihy and Herlihy (1980) advanced the theory that the source of dissatisfaction and stress which causes the majority of secondary principals to leave the principalship is loneliness, "a pervasive sense of isolation which is inherent in their roles".²⁰⁴

The N.A.S.S.P. survey determined that principals had "few opportunities to relieve stress by discussing problems with people who might be helpful".²⁰⁵ A majority said "no one" or didn't give a response when asked with whom they shared their professional problems.

The idea that loneliness on the job is a function of

the leadership position and constitutes a source of stress was identified earlier by Greenwood and Greenwood. They described this phenomenon as "summit isolation", and explained that it has a tendency to become more acute as one advances up the managerial ladder. It was not, however, previously described as a factor in job dissatisfaction.

Two studies were reported in 1981 which attempted to determine the relationship between the job satisfaction of principals and the level of teacher militancy and the collective bargaining process. Johnston, Yeakey, and Winter measured the perceived level of teacher militancy, while Caldwell, Hertzog, Riddle, and Steinhart explored the principal's role in the collective bargaining process.

Using a stratified random sample of forty-five building principals selected from three counties in the northwestern United States, Johnston, Yeakey and Winter studied the relationship between the perceived level of teacher militancy and the job satisfaction of principals.²⁰⁶ The sample was selected in such a way that rural, suburban, and urban subjects participated as well as representatives from elementary, middle/junior and high schools.

The study concluded that the general job satisfaction scores of building principals who perceived a high level of teacher militancy and those who perceived a low level of teacher militancy were not found to differ in a statistically significant manner.²⁰⁷

No significant differences were found among the levels of job satisfaction of principals in rural, urban, or suburban schools, although the mean job satisfaction score of

suburban principals was the highest and rural principals the lowest.

"There were no significant differences among the levels of job satisfaction of principals of elementary, middle/junior or high schools."²⁰⁸ However, high school principals reported the highest mean job satisfaction score and elementary principals the lowest.

Job satisfaction was separated into three components: esteem, autonomy, and self-actualization. Esteem factor scores, autonomy factor scores, and self-actualization factor scores of building principals in districts with high and low levels of teacher militancy were not significantly different. "In essence, the aggressive drive by teachers for their collective good did not significantly affect the job satisfaction of the building principal."²⁰⁹

Caldwell, Hertzog, Riddle, and Steinhart presented a paper at the Annual Meeting of the American Educational Research Association in April 1981. Three studies were reported, all of which took place in Pennsylvania, with the total sample consisting of 532 secondary principals.²¹⁰

Analysis of the data in the first study revealed that principals' participation in the bargaining process had a positive effect on role satisfaction with bargaining. This was statistically significant beyond the .05 level. On the other hand, there was a significant negative relationship between sitting at the bargaining table and satisfaction with bargaining. Although principals wished to be involved

in the bargaining process, they did not wish to sit down at the negotiations table. Strong support was demonstrated for Hypothesis Four which stated that,

principals who were involved in the bargaining process as resource persons, providing input into the bargaining, and receiving information and guidance on contract negotiations until its completion will have a positive relationship with role satisfaction in the collective bargaining process.²¹¹

The second study showed that a slight majority (56.2 percent) of the principals reported high overall job satisfaction.²¹² Only 7.4 percent of principals responding indicated high overall job dissatisfaction.²¹³ There were, however, "indications that many principals were dissatisfied with some aspects of their jobs."²¹⁴ For example, principals were dissatisfied with their roles in determining their own salaries and benefits. They also expressed dissatisfaction with their lack of participation in the teacher/district negotiations. Yet, this "dissatisfaction with items related to the bargaining process was not sufficient to undermine overall job satisfaction for a majority of principals."²¹⁵

A third, related study found that "72.5 percent of the responding principals considered a formal self-interest bargaining unit as the most beneficial and desirous for salary and welfare benefits."²¹⁶ The study also found that principals felt significantly more satisfied when they had input or consultation in regard to their salary determination. These findings supported the contention that all forms of

input, even informal vehicles, raise job satisfaction levels over non-participation roles.

Cohen (1981) tested Herzberg's Motivation-Hygiene Theory as it pertained to urban elementary school principals in Philadelphia. Using both interview and questionnaire data-gathering techniques, Cohen sampled forty principals (five principals were randomly selected from each of eight geographic subdistricts) out of a total population of 156 principals.²¹⁷ The interview utilized the Critical Incident Technique devised by Herzberg and his associates and the Minnesota Satisfaction Questionnaire was used as the measure of job satisfaction.

"Principals indicated motivators as a group were significantly greater indicators of job satisfaction than were hygienes at the .01 confidence level."²¹⁸ "Principals indicated hygienes as a group were significantly greater indicators of job dissatisfaction than were motivators at the .01 confidence level."²¹⁹ Thus, the study strongly supported the Herzberg Motivation-Hygiene Theory for administrators in middle-management positions.

Based on data from both interviews and questionnaires, the major indicators of satisfaction were the motivators-- Achievement, Recognition, and The Work Itself--and the hygiene factor, Interpersonal Relations. The major indicators of dissatisfaction were the hygiene factors--Company Policy and Administration and Interpersonal Relations. These findings support conclusions made in earlier studies by Iannone,

Schmidt, and Stefanski. No significant correlations were discovered between any of the demographic and organizational factors and the principals' job satisfaction.

In a study quite similar to that of Peterson (1977), Murphy (1982) investigated the relationship between job stress and job satisfaction. From a randomly selected sample of one hundred elementary school principals in Virginia, eighty-seven usable responses were obtained.²²⁰ (Peterson also sampled a like number of elementary principals, but in California.) Murphy, like Peterson, used Brayfield and Rothe's Index of Job Satisfaction to measure job satisfaction, but she used Gmelch's Administrative Stress Index for stress measurements. (Peterson used the Heimler Scale of Social Functioning.)

Not surprisingly, Murphy reached conclusions which were identical to those of Peterson with regard to the job satisfaction and stress levels of elementary principals. Specifically, Murphy found that "elementary school principals in this sample leaned toward low work-related stress which was accompanied by a tendency toward high job satisfaction."²²¹ However, this was strictly correlational data. "No evidence was found that would suggest any causal relationship between stress and job satisfaction."²²² The correlation between stress and job satisfaction was $r = -.25$.²²³

No variables, other than job satisfaction were significant at the .05 level. The socioeconomic level of students

and student enrollment produced no significant correlations with either job stress or with job satisfaction.

Statistically significant correlations in the stress and job satisfaction of elementary principals were produced when age was analyzed. A significant relationship between stress and job satisfaction was indicated for principals in the "forty years of age and older" category. "There was a significant negative relationship between stress and job satisfaction for principals who are 40+ years of age or who have six or more years of experience in their present position."²²⁴ But "there was no relationship between stress and job satisfaction for principals who were less than forty years of age or who had from one to five years of experience."²²⁵ Murphy concluded, therefore, that age and years of experience influence both the stress and the job satisfaction of the elementary principal.

Kauffman (1982) investigated the relationship of role conflict and role ambiguity to job satisfaction. A random sample of 425 public elementary school principals in the state of Tennessee yielded 282 usable questionnaires.²²⁶

The study determined that "role conflict was positively correlated with role ambiguity and negatively correlated with job satisfaction (both significant beyond the .005 level)."²²⁷ This disagreed with one of the findings of Miller (1979) who concluded that role conflict was not associated with low levels of job satisfaction experienced by elementary principals.

Kauffman discovered a significant negative relationship between role ambiguity and the number of students in the school system. Larger systems had less role ambiguity for principals while smaller systems had more role ambiguity. However, there was no significant relationship between the size of the system and role conflict or job satisfaction.

No significant relationships were uncovered between the size of a principal's school and role conflict, role ambiguity, or job satisfaction. Thus, Kauffman was unable to perceive a relationship between elementary school size and the level of the principal's job satisfaction. Anton (1974) uncovered such a relationship for secondary school principals, namely, that overall job satisfaction was found to be significantly higher for principals of large high schools.

"The data indicated that rural respondents tended to experience increased amounts of role ambiguity and decreased amounts of job satisfaction when compared to urban respondents."²²⁸ Kauffman's findings with regard to principals in rural areas partially supported the research finding of Johnston, Yeakey, and Winter (1981) who found the mean job satisfaction score of rural principals to be the lowest when compared with urban and suburban principals (although the differences were not statistically significant).

Friesen, Holdaway, and Rice (1983) studied the job satisfaction of principals in Alberta, Canada and analyzed the results using sixteen theoretical categories taken from

Herzberg. A total of 327 usable responses were obtained from high school principals (20%), K-9 and K-12 school principals (36%), and elementary school principals (44%).²²⁹

The random sample was stratified to include responses from principals in city, town, and rural schools.

The following job facets were identified as sources of job satisfaction:

1. Sense of achievement
2. Interpersonal relationships
3. Recognition and status
4. Importance of the work
5. Relationships with central office²³⁰

The following were identified as sources of job dissatisfaction:

1. Administration and policies
2. Amount of work
3. Overall constraints (e.g. lack of money)
4. Attitudes of society
5. Physical context (facilities)
6. Stress
7. Impact on home life²³¹

The following facets were identified as both sources of satisfaction and sources of dissatisfaction:

1. Relationships with teachers
2. Responsibility
3. Autonomy
4. Student attitudes and performance
5. Challenge of work
6. Relationships with parents²³²

The results of this study using school principals generally agreed with those of Herzberg concerning the associations (1) between achievement, responsibility, and recognition as sources of overall satisfaction and (2) between policy and administration, and working conditions as sources of overall dissatisfaction. Further, the ratios of responses identifying recognition, achievement, responsibility, policies and administration, and working conditions as sources of satisfaction and dissatisfaction respectively were approximately equivalent in

Herzberg's research and in this study.²³³

On the other hand, the results of the Alberta study differed from those of Herzberg in a number of ways. Herzberg concluded that interpersonal relationships with subordinates, peers, and supervisors were sources of dissatisfaction.

Prospects for advancement was not mentioned as a source of either satisfaction or dissatisfaction by the principals, whereas over twenty percent of Herzberg's subjects mentioned it as a source of satisfaction.²³⁴

Overall constraints, student attitudes and performance, and attitudes of society were identified by the principals as dissatisfiers, but were not mentioned in Herzberg's research. Finally, "stress was not included on Herzberg's list of dissatisfiers, but some 6.9% of the principals so classified it."²³⁵

Bacharach and Mitchell (1983) collected survey data from eighty-three school districts in New York State which were randomly sampled and stratified according to geographic location, size, wealth of the district, and district expenditures.²³⁶ Ninety-five principals participated in the study which also surveyed superintendents, central office administrative assistants, school board members, and teachers.²³⁷ Three measures of job dissatisfaction were the dependent variables in the study: Job dissatisfaction, dissatisfaction with agents (interpersonal environment), and dissatisfaction with pay.

The study determined that principals who lacked decision-

making power were highly correlated with dissatisfaction with agents and dissatisfaction with pay. On the other hand, principals who already felt overburdened by the amount of responsibility they carried also showed dissatisfaction with agents.

Several factors emerged as predictors of dissatisfaction for principals. Both high routinization and low rule observance emerged as predictors of dissatisfaction with job and dissatisfaction with agents. High diversity and a lack of stability predicted dissatisfaction with agents. District enrollment and percentage of families below the poverty level emerged as predictors of job dissatisfaction.

Other factors were shown to be strong predictors of the various types of dissatisfaction. High negative supervision was found to be a strong predictor of both job dissatisfaction and dissatisfaction with agents. In the area of work demands, "the strongest predictor of dissatisfaction for principals was an unfavorable union attitude toward the administration."²³⁸ This predictor held for both job dissatisfaction and dissatisfaction with agents.

Three factors were identified as negative predictors of dissatisfaction for principals. Low role conflict emerged as a strong and fairly consistent negative predictor of job dissatisfaction and dissatisfaction with agents. High positive supervision was a negative predictor of dissatisfaction with pay and with agents. Number of committees emerged as a negative predictor of dissatisfaction with both agents and pay.

Summary

Several research studies cited in chapter two reached similar conclusions with regard to the degree of job satisfaction enjoyed by school principals. Peterson (1977) and Murphy (1982) reported on the relatively high level of elementary principals' job satisfaction. Rock and Hemphill (1966) found moderate to high levels of self-satisfaction and prestige for junior high school principals, while Caldwell, Hertzog, Riddle and Steinart (1981) determined that a majority of secondary principals enjoyed high overall job satisfaction. Poppenhagen, Mingus, and Rogus (1980) surveyed elementary, junior high and senior high school principals and found those in urban districts to be generally satisfied with their positions.

On the other hand, the National Elementary Principal, on the basis of a 1979 study, reported that high percentages of elementary principals found their jobs to be increasingly dissatisfying and more than half had seriously considered quitting. Gorton and McIntyre (1978) reported on a 1977 study of senior high school principals conducted by the National Association of Secondary School Principals. The data showed that the "effective principals" in the sample were dissatisfied with their jobs to the point that most were not planning to stay in the principalship. DeLeonibus and Thompson (1979) reported on another study conducted by N.A.S.S.P. which probed potential causes of attrition identified by secondary school principals. Poppenhagen, Mingus,

and Rogus (1980) found some serious sources of dissatisfaction, particularly for suburban junior and senior high school principals. Bacharach and Mitchell (1983) analyzed specific sources of job dissatisfaction for public school principals, as well.

Thus, the research has produced data which vary greatly from one study to another with respect to the levels of job satisfaction reported by principals at all three levels of public schools. Nor is there a pattern with regard to the time period in which these studies took place or the geographical areas from which the samples were drawn.

School level of the principal was considered as a factor in three of the studies. Once again, no clear pattern emerges. Gross and Napier (1967) and Johnston, Yeakey, and Winter (1981) found no significant differences in the measures of job satisfaction reported by principals of elementary, middle/junior, or high schools. Poppenhagen, Mingus, and Rogus (1980), however, found significant differences between suburban elementary and suburban junior high and secondary principals for several of the job satisfaction variables measured in their study.

Level of per pupil expenditure was considered as a factor by Rock and Hemphill (1966). However, these researchers found the same pattern of job satisfaction whether the per pupil expenditure was low, medium, or high.

The geographic location of the principal's school was considered as a factor in three of the studies. Kauffman

(1982) found rural principals had lower levels of job satisfaction when compared to urban respondents. Johnston, Yeakey, and Winter (1981) found the mean job satisfaction score of rural principals to be the lowest when compared to the scores of suburban and urban principals, but the differences were not statistically significant. Poppenhagen, Mingus, and Rogus (1980) found more job dissatisfaction in suburban districts than in urban ones. Hence, geographic factors appear to influence principals' job satisfaction.

Four studies dealt with role ambiguity and/or role conflict. Gross and Napier (1967) found an inverse relationship between the role ambiguity perceived by principals and their intrinsic job satisfaction. Miller (1979) also found that high levels of role ambiguity were associated with lower levels of job satisfaction, however, for the sample of elementary principals studied, role conflict was not associated with low levels of job satisfaction. In another study of elementary principals, Kauffman (1982) reported that role conflict did correlate negatively with job satisfaction. Bacharach and Mitchell (1983) discovered that for secondary principals, low role conflict was a strong negative predictor of dissatisfaction with agents, one of the three types of job dissatisfaction studied. Thus, there was strong support for the hypothesis that role ambiguity is negatively associated with job satisfaction, but somewhat less support for the hypothesis that role conflict is negatively associated with job satisfaction.

Two studies, both reported in 1981, investigated the relationship between the collective bargaining process and the job satisfaction of principals. Johnston, Yeakey, and Winter determined that the level of teacher militancy perceived by the principal did not significantly affect the general job satisfaction scores of building principals. Caldwell, Hertzog, Riddle, and Steinhart found that principals' participation in the collective bargaining process as resource persons produced positive correlations with role satisfaction with bargaining.

The relationship between job stress and job satisfaction was the focus of three studies. Peterson (1977) concluded that elementary principals generally do not suffer from a high amount of job stress, but do enjoy a high degree of job satisfaction. Poppenhagen (1977) concluded that, for a sample consisting of elementary, junior high/middle school, and senior high school principals, the respondents were relatively free from job-related tension and perceived themselves as much satisfied with their current positions. Murphy (1982) similarly concluded that her sample of elementary principals exhibited low work-related stress which was accompanied by a tendency toward high job satisfaction. Hence, all three studies reported significant correlations between low job stress and high job satisfaction.

The Motivation-Hygiene Theory of Frederick Herzberg formed the theoretical foundation for eight studies of principals' job satisfaction. These were the following: Miskel

(1972); Iannone (1973); Anton (1974); Johnson (1975); Schmidt (1976); Stefanski (1978); Cohen (1981); Friesen, Holdaway, and Rice (1983). Cohen studied a sample consisting of elementary principals. Anton, Schmidt, and Stefanski sampled secondary principals. Iannone studied both elementary and secondary principals. Johnson and Friesen, Holdaway, and Rice tested principals from elementary, middle, and high schools.

Several major findings were reported by more than one study. For example, achievement and recognition were identified as major indicators of job satisfaction by Iannone, Schmidt, Stefanski, Cohen, and by the team of Friesen, Holdaway, and Rice. Anton also reported a significant association between achievement and the job satisfaction levels of principals in smaller high schools. The motivator, work itself, was identified by Stefanski; Cohen; and Friesen, Holdaway, and Rice as being a significant source of job satisfaction for principals. Anton reported that for principals in large high schools, work itself significantly correlated with job satisfaction. Schmidt's study also found that advancement and responsibility were major motivating factors for principals while Friesen, Holdaway and Rice added status to the list of motivators.

District policy and administration was found to be a major source of dissatisfaction by four of the studies-- Iannone; Schmidt; Cohen; and Friesen, Holdaway, and Rice. Four researchers determined that poor interpersonal rela-

tions was a source of job dissatisfaction for principals-- Iannone, Schmidt, Stefanski, and Cohen. Iannone and Schmidt both found that poor or negative supervision was a significant dissatisfier for principals. Miskel determined that principals had a high need for security and Johnson found that, for elementary, junior high, and high school principals, hygiene factors were more important than motivation factors. Somewhat surprisingly, two studies discovered that the dissatisfier, interpersonal relations was also a source of job satisfaction for principals. This was reported not only by Cohen but also by Friesen, Holdaway, and Rice.

Finally, chapter two reported studies which fit into none of the preceding categories. Brown (1973) sampled elementary, junior high and senior high school principals. He found that principals in schools with twenty percent or more minority student composition enjoyed their jobs less than those principals in schools having fewer or no minority students. Paddock (1979) determined that, in general, female principals were more satisfied with their jobs than male principals. Herlihy and Herlihy (1980) identified loneliness as the most important factor in job dissatisfaction for principals.

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CHAPTER III

PRESENTATION AND ANALYSIS OF DATA

This chapter contains a presentation and analysis of the data secured as a result of this study. Chapter III is subdivided into nine distinct parts. The first section describes the purposes of the present study and restates the twenty focussing questions to which this study sought answers. The sample population and instrumentation are described in the second and third sections, respectively. Definitions of the four Motivation and six Hygiene categories may be found in the Instrumentation section. The methodology of the present study is explained and the statistical tests utilized to interpret the data are identified.

The bulk of the chapter presents results from the two written survey instruments and analyzes these findings. Information from the Job-Related Tension Index is presented first and this job stress information is followed by data from the Attitude Survey. Correlational studies comparing results from the two instruments are presented in a third section.

Data gathered from follow-up interviews with four elementary and four secondary principals are presented and analyzed. A summary of the major findings of this study concludes the chapter.

Purposes

The purpose of this study was to determine if relationships exist between sources of organizational stress of elementary and secondary principals and their motivation to work. The Motivation and Hygiene needs of these principals were identified using the conceptual framework explained by Frederick Herzberg in The Motivation To Work. The study focussed on the following questions:

1. Is there a significant difference between the mean job stress score of elementary principals when compared to the mean job stress score of secondary principals?

2. Is there a significant difference between the mean job stress score of principals in districts having a low operating expense per pupil when compared to the mean job stress score of principals in districts having a high operating expense per pupil?

3. Are there significant interactions between school level, operating expense per pupil, and mean job stress score?

4. Which subscores are most significantly correlated with total job stress score?

5. Using multiple regression analysis, is it possible to predict membership in the elementary or secondary group based on each tension subscore total?

6. Using multiple regression analysis, is it possible to predict membership in the low expenditure or high expenditure group based on each tension subscore total?

7. Are there significant differences between the mean stress scores of elementary and secondary principals on each of the following: growth, responsibility, physical, social, orientation, and security?

8. Are there significant differences between the mean stress scores of low expenditure and high expenditure principals on each of the following: growth, responsibility, physical, social, orientation, and security?

9. Is there a significant difference between the mean attitude score of elementary principals when compared to

the mean attitude score of secondary principals?

10. Is there a significant difference between the mean attitude score of principals in districts having a low operating expense per pupil when compared to the mean attitude score of principals in districts having a high operating expense per pupil?

11. Are there significant interactions between school level, operating expense per pupil, and mean attitude score?

12. Which subscores are most significantly correlated with the total attitude score?

13. Using multiple regression analysis, is it possible to predict membership in the elementary or secondary group based on each attitude subscore total?

14. Using multiple regression analysis, is it possible to predict membership in the low expenditure or high expenditure group based on each attitude subscore total?

15. Are there significant differences between the mean attitude scores of elementary and secondary principals on each of the following: growth, achievement, responsibility, recognition, physical, social, status, orientation, economic, and security?

16. Are there significant differences between the mean attitude scores of low expenditure and high expenditure principals on each of the following: growth, achievement, responsibility, recognition, physical, social, status, orientation, economic, and security?

17. What is the relationship, if any, between the job attitude scores for all principals studied and the job stress scores for all principals studied?

18. What is the relationship, if any, between the job attitude Motivation scores and the job stress Motivation scores for all principals studied?

19. What is the relationship, if any, between the job attitude Maintenance scores and the job stress Maintenance scores for all principals studied?

20. What is the relationship, if any, between the measure for each of the following on the Attitude Questionnaire when compared to the measure of the same factor on the Job-Related Tension Index: growth, responsibility, physical, social, orientation, and security?

The Sample Population

Five hundred four elementary and junior high school principals from suburban Cook County, Illinois were identified using the 1982-83 Directory of Suburban Public Schools published by the Educational Service Region of Cook County. Each principal was assigned an identification number for the purpose of random selection. Twelve elementary principals were eliminated from the population to be sampled, eleven because they also held central office positions and one who was no longer a principal at the time of the survey. One hundred twenty principals were randomly selected from this revised population and constituted the elementary sample.

Responses were obtained from eighty elementary principals, of which seventy-three were usable. Questionnaires were determined to be unusable for the following reasons:

failure to answer all the questions on the Attitude Survey (2)

failure to answer all the questions on the Job-Related Tension Index (2)

refusal to complete any of the items (3)

The rate of response for elementary principals was 66.7 percent.

Seventy-one secondary school principals from suburban Cook County, Illinois were identified using the 1982-83 Directory of Suburban Public Schools published by the Educational Service Region of Cook County. Each of these principals was coded, but no random selection was necessary, however, since all were included in the sample group.

Responses were obtained from sixty-six secondary school principals of which sixty-three were usable. Questionnaires from this sample were determined to be unusable for the following reasons:

failure to answer all the questions on the Job-Related Tension Index (2)

One high school principal reported that his responses were negatively skewed due to the fact that he had been told by his superintendent that he would be released from his position at the end of the current school year. His Attitude Questionnaire and Tension Index were excluded from the sample.

The rate of responses for secondary principals was 92.9 percent.

Eight respondents were randomly selected for follow-up interviews in the following manner: two were selected from the group of elementary principals working in districts reporting low per pupil expenditures; two were selected from those elementary principals working in districts reporting high per pupil expenditures; two were selected from the group of secondary school principals working in districts reporting low per pupil expenditures; and two were chosen from those secondary principals in districts reporting high per pupil expenditures. These interviews were conducted in August and September of 1984.

Suburban Cook County was selected as the target geographical area from which to draw the subjects for the sample group because it is a fairly homogeneous area in terms of

being mainly suburban in nature. Chicago was excluded because urban and inner-city principals who are employed by a huge school system are in a quite different environment and very probably encounter sources of organizational stress which vary considerably from suburban administrators.

Instrumentation

For the purposes of this study, two separate written survey instruments were utilized.

To measure job stress, a modified version of the Job-Related Tension Index was used. (See Appendix A) This instrument was developed at the University of Michigan Survey Research Center and was reported in the book, Organizational Stress: Studies in Role Conflict and Ambiguity by Robert L. Kahn and others.

The respondent was asked to answer fourteen items by choosing one of four fixed alternative responses. These responses are: "Never", "Sometimes", "Rather Often", and "Nearly All the Time". Each alternative was assigned a coded value from one to four and the subject's overall Tension score was simply the sum of all the items. The lowest possible Tension score, fourteen, indicated that the respondent had chosen "Never" as his/her response for every question. The highest Tension score of fifty-six would characterize an individual who was bothered "Nearly All the Time" by the indicated situations, and thus was suffering from a relatively high degree of job-related tension.

To measure job satisfaction/dissatisfaction, the study utilized a modified version of the 1963 edition of the Annual Employee Attitude Survey which was formerly administered to employees at Texas Instruments, Inc. (See Appendix B) The format for categorizing survey results was developed from the Motivation-Hygiene Theory of Frederick Herzberg. Herzberg identified two sets of factors, the motivator events which determined job satisfaction and the hygiene or maintenance events whose absence had the potential of causing unpleasantness for employees and led to job dissatisfaction.

Each of the ninety-five items on the Attitude Questionnaire measured one of the Motivation or Hygiene (Maintenance) categories. Motivation categories are defined as follows:

growth or possibility of growth - It includes not only the likelihood that the individual would be able to move onward and upward within his organization but also a situation in which he is able to advance in his own skills and in his profession.¹

achievement - Stories involving a specifically mentioned success were put into this category, and these included the following: successful completion of a job, solutions to problems, vindication and seeing the results of one's work.²

responsibility - This category includes those sequences of events in which the person speaking reported that he derived satisfaction from being given responsibility for his own work or for the work of others, or from being given new responsibility. It also includes stories in which there was a loss of satisfaction or a negative attitude toward the job stemming from a lack of responsibility.³

recognition - The major criterion for this category was some act of recognition of the person speaking to us. The source could be almost anyone: a supervisor, another individual in management, management as an impersonal force, a client, a peer, a professional colleague or the general public.⁴

Maintenance categories represented in the survey questions are the following:

status - this category was indicated when the respondent mentioned some sign or appurtenance of status as a factor in his feelings about the job.⁵ Dr. M. Scott Myers, under whose leadership the Motivation-Hygiene Theory was implemented at Texas Instruments, provided the following examples of status: job classification, title, furnishings, location, privileges, relationships, company status.⁶

security or job security - objective signs of the presence or absence of job security.⁷ Myers provided the following as examples of security: fairness, consistency, reassurance, friendliness, seniority rights, grievance procedure.⁸

physical - this category designation was provided by Myers and corresponds to Herzberg's category, "working conditions". Herzberg defined this as the physical conditions of work, the amount of work or the facilities available for doing the work.⁹ Myers listed the following examples of the physical category: work layout, job demands, work rules, equipment, location, grounds, parking facilities, aesthetics, lunch facilities, rest rooms, temperature, ventilation, lighting, noise.¹⁰

economic - this category designation was also provided by Myers and corresponds to Herzberg's category, "salary". Herzberg interpreted this category broadly, defining it as any form of compensation. Myers provided the following as examples: wages and salaries, automatic increases, profit sharing, social security, workmen's compensation, unemployment compensation, retirement, paid leave, insurance, tuition, discounts.¹¹

social - Myers used the following to demonstrate this category: work groups, coffee groups, lunch groups, social groups, office parties, ride pools, outings, sports, professional groups, interest groups.¹² This corresponds most nearly to Herzberg's classification "interpersonal relations".

orientation - this refers to the adequacy of training, preparation, and ongoing communication within the work place. It also involves the extent to which the employee is made aware of policies, rules, benefits, and the hierarchical structure of the company or school. Job instruction, work rules, group meetings, shop talk, newspapers, bulletins, handbooks, letters, bulletin boards, grapevine are all examples of items included in this category.¹³

The term, "orientation", was designated by Myers and does not directly correspond to any of Herzberg's categories, although some similarities exist between "orientation" and the Herzberg category, "company policy and administration".

The modified Employee Attitude Survey contains both positive and negative statements. A question was scored as a "+1" if the respondent agreed with a positive statement or disagreed with a negative statement. A question was scored as a "-1" if the respondent agreed with a negative statement or disagreed with a positive statement. If the respondent could not decide, (this was one of the alternatives) a "0" score was attributed to that particular question. The principal's Job Satisfaction/Dissatisfaction score was simply the sum of the ninety-five questions. Each question was aligned with one of the Maintenance (Hygiene) or Motivation categories. Subscores were calculated for each of the ten categories for each respondent.

Both survey instruments were altered for the purposes of this study. The Job-Related Tension Index in the present study used the identical fourteen items developed by Robert L. Kahn for his "Intensive Study". These were reported in the book, Organizational Stress: Studies in Role Conflict and Ambiguity. However, the present study provided only four fixed alternative responses for each item while the original index provided five. ("Rarely" was omitted.)

The alterations made in the original Employee Attitude Survey were more numerous. Various references to specific departments at Texas Instruments and factory jargon had to

be deleted or changed to reflect the terminology and organization used in schools. For example, references to one's foreman or plant manager had to be changed to indicate the superintendent and/or the board of education.

Since both instruments were changed, field testing was necessary to establish their validity. The field testing was accomplished in January, 1984 when three elementary and three secondary principals from Lake County suburban schools field-tested the instruments and made suggestions for their improvement. Several of the survey items were altered based on their recommendations.

Eight principals, two from each cell, were randomly selected for follow-up interviews in order to probe the sources of job stress and job satisfaction in a more comprehensive manner and to provide an indication of the reliability of the answers the respondents had supplied earlier. In a study published in 1964, Robert L. Kahn and others reported on an Intensive Study which interviewed respondents at their job sites.¹⁴ In a second interview, the focal person was questioned about sources of job satisfaction and dissatisfaction and sources of job stress. The interview in the present study utilized questions from two parts of Kahn's second interview. (See Appendix C) The first series consists of questions about sources of satisfaction in the job. It concludes with four items from the Attitude Survey, one each from the categories of achievement, recognition, physical, and economic. The second series consists of questions

about job stress and ends with two questions from the Job-Related Tension Index which pertain to the physical and responsibility categories.

Methodology

The Job-Related Tension Index and the Attitude Questionnaire were mailed to each respondent in February, 1984 along with a letter of introduction and an explanation of the research design (See Appendices D and E). Secondary principals who failed to respond received a phone call the following month. Principals who requested it were mailed second copies of the survey instruments. More than the minimum required number of elementary surveys were returned so no further contact with elementary principals was necessary.

Following the classification of the items on the Job-Related Tension Index into the Motivation/Maintenance (Hygiene) categories, the responses on the Tension Index were compared to those on the Employee Attitude Questionnaire using the technique of correlational analysis. (The questions on the Attitude Questionnaire had already been categorized in this manner.)

Three types of scores were then compared using Kendall's Tau Correlation Coefficient. First, the respondents' total scores on the Job-Related Tension Index were correlated with the total scores on the Attitude Questionnaire. Next, the categorical subscores from the Tension Index were correlated with the subscores from the same category on the

Attitude Questionnaire. This was computed for the Maintenance categories--Physical, Social, Orientation, and Security--and for the Motivation categories of Growth and Responsibility. Finally, the categorical subscores from each instrument were combined into the two broad areas of Motivation and Maintenance. The Motivation scores from the Job-Related Tension Index were correlated with the Motivation scores from the Attitude Questionnaire. A similar correlation was computed utilizing Maintenance scores from each instrument.

Another correlational analysis was computed by comparing the scores in each category to the total scores on the same instrument. This analysis was done for the scores from both instruments to see which subscores correlated most significantly with the total scores. Pearson's Correlation Coefficient was used to compute these correlations.

The total scores from the Job-Related Tension Index were the dependent variable in a four cell, 2 x 2 factorial research design using the independent variables of school level (elementary and secondary) and the level of per pupil expenditure (high and low). The level of per pupil expenditure was determined by using the "Operating Expense Per Pupil" figures compiled by the Illinois State Board of Education, Department of Finance and Reimbursements. These figures were reported in Illinois Public Schools Financial Statistics 1981-1982 School Year. Membership in the expenditure categories was determined by identifying the per pupil expenditures for the school districts in which the respon-

dents worked, rank-ordering them, and dividing them as nearly as possible into two equal groups. For elementary principals, the low expenditure cell consisted of thirty-seven principals working in districts where the annual expenditure per student ranged from \$1794 to \$2657. The high expenditure cell was made up of thirty-six principals who worked in districts where the annual expenditure per student ranged from \$2668 to \$4394. For secondary school principals, the low expenditure cell consisted of thirty-one principals who worked in districts where the annual expenditure per student ranged from \$3004 to \$3998. The high expenditure cell consisted of thirty-two principals who worked in school districts where the yearly expenditure per pupil ranged from \$3999 to \$5903.

One-way and two-way analysis of variance were used to test for significant differences between the group means on the dependent variable--stress scores.

The independent variables of school level and per pupil expenditure were used in another four cell, 2 x 2 factorial research design, this time using the total scores from the Attitude Questionnaire as the dependent variable. Once again, one-way and two-way analysis of variance were used to test for significant differences between the group means on the dependent variable--attitude scores.

Finally, using multiple regression analysis, the subscores from each category on the Job-Related Tension Index and the subscores from each category on the Attitude survey

were used to predict membership in the elementary or secondary group, and membership in the high or low expenditure group. The multiple regression equations and beta weights generated from these numbers were then tested for significance.

Presentation And Analysis Of Written Survey Results

This section of the chapter pertains to a presentation and analysis of the data secured as a result of this study. The major purpose of the analysis and interpretation of the data was to answer the twenty focussing questions relative to the relationships between job stress and job satisfaction for elementary and secondary school principals in suburban Cook County, Illinois, during the 1983-84 school year. These twenty questions were presented in Chapter I of this dissertation and were repeated at the beginning of Chapter III.

The focussing question and the null hypothesis developed from that question are presented first. Then the data pertaining to the question and hypothesis are presented and an analysis of the data follows.

Question One: Is there a significant difference between the mean job stress score of elementary principals when compared to the mean job stress score of secondary principals?

Null Hypothesis One: There is no statistically significant difference between the mean job stress scores of elementary and secondary principals.

Null Hypothesis One can be rejected at the .05 confidence level. The mean tension score on the Job-Related

Tension Index for elementary principals was 24.8767, while the mean tension score for high school principals was 22.9524. (See Table 1) The F probability calculated was .0249. Elementary scores ranged from a minimum of fourteen to a maximum of forty-two with a standard deviation of 5.4236. High school scores ranged from a minimum of fourteen to a maximum of thirty-seven with a standard deviation of 4.2896.

Thus elementary principals perceived themselves to be under job-related stress more frequently than secondary school principals. This finding is consistent with that of Schuetz (1980) who found that elementary school principals exhibited higher stress levels than secondary school principals.

However, the two mean scores should be considered with regard to the index used. The lowest possible score obtainable was fourteen. A principal who answered each of the fourteen questions with the response, "Never", would produce such a score. The highest possible score obtainable was fifty-six. A respondent marking each item with the alternative, "Nearly all the time", would achieve fifty-six as a total. Both means fell between "Sometimes" and "Never". Hence, the means for elementary and secondary principals did not indicate a high frequency of stressful incidents for either type of principal.

The Job-Related Tension Index did not measure either the intensity or the duration of the stress. Therefore, although elementary principals reported a significantly greater frequency of stressful incidents than their high

TABLE 1
ANALYSIS OF VARIANCE
TOTAL TENSION SCORE BY SCHOOL LEVEL

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	1	125.2230	125.2230	5.1492 *	.0249
Within Groups	134	3258.7476	24.3190		
Total	135	3383.9706			

Group	Count	Mean	Standard Deviation	Standard Error	Minimum	Maximum
Elementary	73	24.8767	5.4236	.6348	14	42
High School	63	22.9524	4.2896	.5404	14	37
Total	136	23.9853	5.0066	.4293	14	42

* < .05

school counterparts, no conclusions can be drawn regarding the intensity or duration of the stressful events.

The Job-Related Tension Index asked questions about job situations corresponding to the Maintenance categories of physical, social, orientation, and security. The Maintenance categories, status and economic were not represented by any of the questions on the Index. Thus, although numerous authors have commented on the increased job status and economic benefits enjoyed by secondary school principals when compared to elementary principals, these appear not to have contributed to differences in the job-related tension group mean scores.

The Motivation categories, growth and responsibility were represented by three questions each on the Tension Index. However, there were no questions from the Motivation categories, achievement and recognition. Hence, the levels of achievement and recognition do not appear to be factors in the significantly higher stress frequency scores reported by elementary principals.

The responsibility for making decisions which affect the lives of others was reported to be a stressor for principals by Gmelch; Swent and Gmelch; Gmelch, Koch, Swent and Tung; Schuetz; Hughes; Gorton; and Brimm. Question nine on the Job-Related Tension Index asked principals how frequently they were bothered by this responsibility. For the majority of elementary and secondary principals in the present study, making decisions affecting the lives of others

bothers them "sometimes". The results show that 71.2 percent of the elementary principals and 74.6 percent of the secondary principals ranked this stressor as occurring "sometimes". Approximately 17.8 percent of elementary and 12.7 percent of the secondary principals were bothered rather often by decision-making affecting others. An additional 9.6 percent of the elementary and 11.1 percent of the secondary principals reported that this "never" bothers them. Hence, there do not appear to be significant differences between school levels on frequency of stress resulting from decision-making affecting others.

Goldhammer, Gmelch, Giammatteo, and Piatt identified role ambiguity as being a source of job stress for principals. Question two on the Job-Related Tension Index asked principals how frequently they were bothered by "being unclear on just what the scope and responsibilities of your job are". The majority of high school principals (57.1 percent) indicated that they are "never" unclear about the scope and responsibilities of their jobs. However, the majority of elementary principals (54.8 percent) indicated that unclear scope and job responsibilities bother them "sometimes". Thus, it would appear that role ambiguity is a greater problem for elementary principals than it is for high school principals.

The reasons high school principals perceived their job tasks more clearly than elementary principals were not identified in the present study. It may be that more secon-

dary schools have clear and unambiguous job descriptions for their principals than do elementary schools. This may be partially due to the greater presence of assistant administrators at the secondary level. When there is more than one administrator working within a school, it may become necessary to clearly differentiate one's responsibilities from those of another. In elementary schools, where more principals have no administrative assistants, there is not as great a need to specifically identify job tasks since the elementary principal performs the majority of the administrative duties alone.

Role conflict was reported as a source of job stress for principals by Vetter, Gmelch, Schuetz, Giammatteo, and Washington. Question five on the Job-Related Tension Index dealt with role conflict. It asked principals to indicate how frequently they were bothered by "thinking that you'll not be able to satisfy the conflicting demands of various people over you". For the majority of elementary and secondary principals studied, the problem of role conflict due to the demands of superiors occurred "sometimes". The results showed that 58.9 percent of elementary principals and 66.7 percent of secondary principals indicated that this was sometimes a problem for them.

The respondents were never asked to identify the "various people over you" so it is not clear who the sources of the conflicting demands actually were. It may be that various central office administrators such as superintendents,

assistant-superintendents, business managers, and curriculum specialists made conflicting demands of principals. It may also be possible that the superintendent and the board of education made such conflicting demands.

The data further revealed that approximately one quarter of the elementary and secondary principals experienced no role conflict resulting from the conflicting demands of superiors. This may be due to the fact that in many districts the principal reports directly to the superintendent. In fact, one respondent indicated that this was precisely the case in his district in a comment written just below question five on his Tension Index.

Question Two: Is there a significant difference between the mean job stress score of principals in districts having a low operating expense per pupil when compared to the mean job stress score of principals in districts having a high operating expense per pupil?

Null Hypothesis Two: There is no statistically significant difference between the mean job stress score of principals in districts having a low operating expense per pupil and the mean job stress score of principals in districts having a high operating expense per pupil

Null Hypothesis Two cannot be rejected at the .05 significance level. The average tension score for principals in the high expenditure group was 23.2206. (See Table 2) The mean tension score for principals in low expenditure districts was 24.7500. The F probability calculated was .0748. Thus, although the mean tension score of the high expenditure principals was lower, it was not significantly lower than the mean tension score of the low expenditure principals. In Chapter One it was hypothesized that districts which spent

TABLE 2
ANALYSIS OF VARIANCE
TOTAL TENSION SCORE BY LEVEL OF EXPENDITURE

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	1	79.5294	79.5294	3.2250 *	.0748
Within Groups	134	3304.4412	24.6600		
Total	135	3383.9706			

Group	Count	Mean	Standard Deviation	Standard Error	Minimum	Maximum
High Expenditure	68	23.2206	4.5445	.5511	14	39
Low Expenditure	68	24.7500	5.3542	.6493	17	42
Total	136	23.9853	5.0066	.4293	14	42

* > .05

less money per student would place principals in stressful situations with greater frequency than more financially able school districts. It was further theorized that principals in low expenditure districts would be forced to assume additional responsibilities. These additional responsibilities and burdens would lead to work overload and higher levels of job-related stress. These hypotheses regarding the stress levels of principals were not supported by the data.

There are several possible reasons why the group means were not significantly different from one another. First, only one question of the fourteen questions on the instrument dealt with the issue of a too heavy work load. Hence, the effect of this one response may have been diluted by other responses which did not differ as significantly between expenditure groups.

Secondly, the economic category was not represented by any of the fourteen questions on the Job-Related Tension Index. It is quite possible that the salaries and fringe benefits of principals in low expenditure districts were not as high as those of principals in the high expenditure school systems. This may have been the source of a significant difference in job stress levels, but the instrument did not measure this category.

Finally, the Job-Related Tension Index is heavily weighted to represent the Maintenance categories, orientation and security and the Motivation categories, growth and responsibility (three questions from each of these four

categories). The questions from these four categories may not have adequately discriminated between the job stress levels of the two expenditure groups. Only one question pertained to the physical working conditions and none pertained to economic, status, achievement, or recognition categories. This limitation of the Job-Related Tension Instrument was cited in Chapter One and may have resulted in an inability to perceive significant differences in the job stress levels of principals in the two expenditure groups.

Question Three: Are there significant interactions between school level, operating expense per pupil, and mean job stress score?

Null Hypothesis Three: There is no statistically significant difference among the variances for school level by expenditure level.

Null Hypothesis Three cannot be rejected at the .05 significance level. The two-way interactions by school level and level of expenditure resulted in F probabilities of .257. Thus, the interactions were not statistically significant.

Elementary principals working in school districts with low expenditures per pupil reported the highest scores on the Job-Related Tension Instrument (See Table 3). The mean for low expenditure elementary principals was 26.05. Elementary principals working in districts with high expenditures per pupil were shown to have the second highest mean on the Job-Related Tension Instrument, 23.67. The scores of high school principals working in districts with low expenditures per pupil produced a mean Tension Instrument score of 23.19. The lowest mean Tension Instrument score of 22.72 was calculated

TABLE 3
ANALYSIS OF VARIANCE
TOTAL TENSION SCORE BY
SCHOOL LEVEL AND LEVEL OF EXPENDITURE

Source of Variation	Sum of Squares	DF	Mean Square	F	Signif. of F
Main Effects	201.853	2	100.927	4.228 *	0.017
School Level	122.324	1	122.324	5.124	0.025
Level of Expenditure	76.630	1	76.630	3.210	0.075
2-Way Interactions	30.918	1	30.918	1.295	0.257
School Level	30.918	1	30.918	1.295	0.257
Explained	232.771	3	77.590	3.250	0.024
Residual	3151.199	132	23.873		
Total	3383.971	135	25.066		

Level of Expenditure		
School Level	High	Low
Elementary	23.67 (36)	26.05 (37)
High School	22.72 (32)	23.19 (31)

* < .05

for high school principals in districts with a high level of expenditure per student.

The means for the two groups of high school principals and the mean of the high expenditure elementary principals cluster fairly closely to one another. However, the mean for elementary principals in the low expenditure districts was somewhat higher. This would seem to indicate that the elementary principals in the low expenditure districts had a great deal to do with causing the group mean for all elementary principals to be significantly higher than the total high school mean.

The results of the present study indicate that school level is more significant than operating expense per pupil in identifying the principal's job stress level. It appears that high school principals experienced significantly lower frequencies of stressful incidents on the job, regardless of the per pupil expenditure, when compared to elementary principals.

Question Four: Which subscores are most significantly correlated with the total job stress score?

Null Hypothesis Four: There is no statistically significant correlation between each subscore and the total job stress score.

The Null Hypothesis may be rejected for each of the six categories. All six subscores on the Job-Related Tension Index were significantly correlated with the total job stress score. The SPSSX program used to compute the Pearson Correlation Coefficients calculated the significance of the corre-

lations to three decimal places and all were significant beyond this level.

The highest correlation coefficient was calculated for the security category (.8456), followed by orientation (.8035), responsibility (.7664), growth (.6242), physical (.4936), and social (.3865). (See Table 4) Due to the relatively large sample size, $N = 136$, even smaller correlation coefficients were determined to be significant.

It should not be surprising that the correlations obtained using the physical and social categories were the lowest, since these categories were represented by one question each. In contrast, the security, orientation, responsibility, and growth categories were represented by three questions each on the Job-Related Tension Index. Since twelve of the fourteen questions (eighty-six percent) were from the orientation, security, responsibility, and growth categories, the structure of the instrument, itself, probably had a great deal to do with the lower correlations obtained for the physical and social categories.

Of the four largest correlation coefficients, the Hygiene or Maintenance categories, security and orientation, were more highly correlated with the total Tension Score than were the Motivation categories, responsibility and growth. Thus, it appears that extrinsic factors in the work environment leading to job dissatisfaction in the areas of security and orientation were more highly correlated with the job stress of principals than were the intrinsic moti-

TABLE 4
PEARSON CORRELATION COEFFICIENTS
JOB-RELATED TENSION INDEX

Security	.8456*
Orientation	.8035*
Responsibility	.7664*
Growth	.6242*
Physical	.4936*
Social	.3865*

N = 136

* $p < .000$

vators--growth and responsibility.

Each of the three questions in the security category deals with the principal's relationship with his superiors. Herzberg identified interpersonal relations with superiors as a Hygiene category which was separate and distinct from the job security category. Dr. M. Scott Myers, however, included questions dealing with the employee's relationships with his superiors in the security classification. The framework suggested by Myers was utilized in classifying the questions on the Job-Related Tension Index in order to provide consistency, since the Attitude Survey used in the present study was originally developed by Dr. Myers and makes use of his category designations, as well.

An analysis of the results from the perspective of Herzberg, however, would show that interpersonal relationships with superiors was most highly correlated with the total tension score. Since relationships with superiors was a Hygiene factor, the renaming of the security category does not detract from the assertion that Hygienes were more highly correlated with the total tension score than were Motivators.

Question Five: Using multiple regression analysis, is it possible to predict membership in the elementary or secondary group based on each tension subscore total?

Null Hypothesis Five: There are no combined tension subscores that predict membership in the elementary or secondary group at a statistically significant level.

The technique of backwards multiple regression analysis was utilized to generate multiple regression or prediction

equations. First, the data from all six categories on the Job-Related Tension Index were analyzed and a multiple regression equation and beta weights were calculated. The multiple regression equation and beta weights were tested for significance using analysis of variance and then categorical data were removed, one at a time, in reverse order of significance.

The multiple regression analysis (See Table 5) determined that security was the only significant predictor of membership in the elementary and secondary groups. It was significant at the .0272 level. The multiple regression equation for social and security together was significant at the .0242 level, however, the beta weights obtained for security and social were tested and found not to be significantly different from zero.

The three questions on the Job-Related Tension Index which measured the frequency of stresses resulting from a lack of job security were the following:

How frequently do you feel bothered by each of these?

Thinking that you'll not be able to satisfy the conflicting demands of various people over you.

Not knowing what your supervisor thinks of you, how he evaluates your performance.

Feeling unable to influence your immediate supervisor's decisions and actions that affect you.

The underlying theme of the first question is role conflict, while that of the second is role ambiguity. Earlier, role ambiguity was identified as a greater problem for

TABLE 5
 BACKWARDS MULTIPLE REGRESSION
 JOB-RELATED TENSION INDEX BY SCHOOL LEVEL

	Variable	Beta	Sig T
F = 1.79783 Signif F = .1045	Security	-.18747	.1108
	Social	-.13596	.1470
	Physical	-.07174	.4871
	Growth	-.12609	.1905
	Orientation	.15386	.2037
	Responsibility	.01074	.9328
Removed Responsibility F = 2.17256 Signif F = .0610	Security	-.18579	.1075
	Social	-.13360	.1338
	Physical	-.06789	.4616
	Growth	-.12603	.1890
	Orientation	.15739	.1642
Removed Physical F = 2.58840 Signif F = .0398	Security	-.20174	.0749
	Social	-.14669	.0927
	Growth	-.11610	.2206
	Orientation	.14745	.1883
Removed Growth F = 2.93477 Signif F = .0358	Security	-.22959	.0393
	Social	-.14269	.1022
	Orientation	.11633	.2869
Removed Orientation F = 3.82646 Signif F = .0242	Security	-.15666	.0731
	Social	-.14006	.1806
Removed Social F = 4.98435 Signif F = .0272	Security	-.18937	.0272

elementary principals than it was for high school principals. Role conflict was identified as a problem which occurred "sometimes" for both types of principals.

The mean stress score for secondary principals on all three questions was 5.3, while the mean stress score for elementary principals was 6.0. It appears that stress arising from a lack of job security was a more frequent problem for elementary principals than it was for high school principals. The difference in mean stress levels for security was undoubtedly the important reason why the only significant predictor of group membership was security.

Elementary principals were more frequently stressed because of worry about what the superintendent thought of them, a lack of knowledge about how they were being evaluated, the expectation that they would not be able to satisfy the conflicting demands of superiors, and feeling unable to influence the decisions and actions of their immediate superior. The common element within all these stressors seems to be a lack of communication between the elementary principal and his superintendent. A lack of communication between principal and superintendent, therefore, was an important factor in the unmet job security needs of elementary principals.

The Motivation categories tended to be among the least accurate predictors of group membership since responsibility was removed first from the data being analyzed and growth was removed third. Because categorical data were removed in

reverse order of significance, it is apparent that neither responsibility nor growth was an accurate predictor of group membership. It may be that these two factors were of similar importance to elementary and secondary principals in the determination of stress frequencies. Having too much or too little responsibility was a source of stress which occurred with similar frequencies for both types of principals.

The mean stress scores for job growth also failed to predict group membership in the elementary and secondary groups with a significant degree of accuracy. Therefore, the scores from the Motivation categories, growth and responsibility, produced less accurate prediction equations for elementary and secondary group membership than the scores from the Hygiene categories, orientation, social, and security. Based on the results of the multiple regression analysis, it appears that Hygiene factors, particularly security, predicted group membership more accurately than did Motivation factors.

Herzberg theorized that the absence of Hygiene factors in the job environment would lead to job dissatisfaction, but the lack of Motivators would lead to a low level of job satisfaction. One of the factors which contributes to job dissatisfaction (lack of security) was a highly significant predictor of group membership and Hygienes, in general, produced prediction equations with greater accuracy than the Motivators.

Question Six: Using multiple regression analysis, is it possible to predict membership in the low expenditure and high expenditure group based on each tension subscore total?

Null Hypothesis Six: There are no combined tension subscores that predict membership in the low expenditure or high expenditure group at a statistically significant level.

The Null Hypothesis cannot be rejected. None of the multiple regression equations were significant at the .05 level, although the prediction equation for orientation was significant at .0527 (See Table 6). This is not a totally surprising finding since the mean job stress scores for the low and high expenditure groups did not vary significantly from one another.

The fact that orientation produced the most accurate prediction equation is somewhat puzzling. The mean tension score for orientation in the low expenditure group was 4.7941 but in the high expenditure group it was 4.3676. Hence, principals in school districts spending less per pupil reported a significantly higher frequency of stress from job orientation factors. The three questions pertaining to orientation on the Job-Related Tension Index were the following:

How frequently do you feel bothered by each of these?

Being unclear what the scope and responsibilities of your job are.

Feeling that you're not fully qualified to handle your job.

The fact that you can't get information needed to carry out your job.

TABLE 6

BACKWARDS MULTIPLE REGRESSION

JOB-RELATED TENSION INDEX BY LEVEL OF EXPENDITURE

	Variable	Beta	Sig T
F = .69405 Signif F = .6548	Security	Not in	.9354
	Social	-.03441	.7192
	Physical	-.01523	.8854
	Growth	.02943	.7648
	Orientation	.11904	.3365
	Responsibility	.06929	.5957
Removed Security F = .83794 Signif F = .5251	Social	-.03389	.7216
	Physical	-.01445	.8904
	Growth	.03117	.7445
	Orientation	.12315	.2739
	Responsibility	.07109	.5792
Removed Physical F = 1.05053 Signif F = .3838	Social	-.03315	.7157
	Growth	.03265	.7302
	Orientation	.12342	.2710
	Responsibility	.06285	.5778
Removed Growth F = 1.37004 Signif F = .2548	Social	-.03447	.7148
	Orientation	.13712	.1898
	Responsibility	.06252	.5785
Removed Social F = 2.00103 Signif F = .1392	Orientation	.14015	.1774
	Responsibility	.04678	.6516
Removed Responsibility F = 3.81988 Signif F = .0527	Orientation	.16648	.0527

The first question deals with the theme of role ambiguity while the second measures how frequently the principal is stressed by qualitative work overload. The third question indicates a lack of communication which thwarts the achievement of job tasks. In fact, a common element in all three questions seems to be a lack of achievement or the inability to complete one's job tasks.

A principal who does not know the scope and responsibilities of his or her job will have a difficult time feeling a sense of accomplishment. How can such an individual be sure that he or she has met all the responsibilities of the position without knowing what they are? Goldhammer, Gmelch, Giammatteo, and Piatt identified role ambiguity as being a source of stress for principals.

When a principal feels unqualified to deal with certain aspects of his job, this is an example of qualitative work overload. In Chapter I, it was hypothesized that principals in low expenditure districts would experience work overload, and thus exhibit significantly higher stress scores. The overload referred to in Chapter I was quantitative in nature. The only question in the physical category asked, how frequently the principal was stressed by "feeling that you have too heavy a work load, one that you can't possibly finish during an ordinary workday." The backwards multiple regression analysis removed this category from the analysis before three other categories, indicating it had a very low pre-

dictive ability. Thus, qualitative work overload, as a part of the orientation category, was better able to predict group membership in the high and low expenditure groups.

Question Seven: Are there significant differences between the mean stress scores of elementary and secondary principals on each of the following: growth, responsibility, physical, social, orientation, and security?

Null Hypothesis Seven: There is no statistically significant difference between the mean stress scores of elementary and secondary principals for each of the following categories: growth, responsibility, physical, social, orientation, and security.

The Null Hypothesis may be rejected for the categories of security (F probability = .0272) and social (F probability = .0397). The Null Hypothesis may not be rejected for the following categories:

growth	F probability = .0903
responsibility	F probability = .1450
physical	F probability = .1572
orientation	F probability = .5407

Table 7 displays the data derived from the analysis of variance. These results supported the multiple regression analysis which determined that security produced the most significant equation for predicting membership in the elementary and secondary groups. Security, likewise, produced a significant result in the analysis of variance. The analysis of security as a significant factor in the job stress scores of elementary and secondary principals was presented in the discussion of Question Five.

Social was the last variable removed from the backwards multiple regression analysis and it also produced a signif-

TABLE 7A

ANALYSIS OF VARIANCE

JOB-RELATED TENSION INDEX CATEGORIES BY SCHOOL LEVEL

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Security -					
Between Groups	1	16.2901	16.2901	4.9843 *	.0272
Within Groups	134	437.9452	3.2682		
Total	135	454.2353			
Social -					
Between Groups	1	1.1470	1.1470	4.3161 *	.0397
Within Groups	134	35.6104	.2657		
Total	135	36.7574			
Growth -					
Between Groups	1	6.8375	6.8375	2.9115	.0903
Within Groups	134	314.6919	2.3484		
Total	135	321.5294			
Responsibility -					
Between Groups	1	2.9398	2.9398	2.1492	.1450
Within Groups	134	183.2955	1.3679		
Total	135	186.2353			
Physical -					
Between Groups	1	1.1147	1.1147	2.0235	.1572
Within Groups	134	73.8191	.5509		
Total	135	74.9338			
Orientation -					
Between Groups	1	.6245	.6245	.3761	.5407
Within Groups	134	222.4858	1.6603		
Total	135	223.1103			

* < .05

TABLE 7B

ANALYSIS OF VARIANCE

JOB-RELATED TENSION INDEX CATEGORIES BY SCHOOL LEVEL

Group	Count	Mean	Standard Deviation	Standard Error
Security -				
Elementary	73	6.0274	2.0205	.2365
High School	63	5.3333	1.5240	.1920
Total	136	5.7059	1.8343	.1573
Social -				
Elementary	73	1.7397	.5278	.0618
High School	63	1.5556	.5009	.0631
Total	136	1.6544	.5218	.0447
Growth -				
Elementary	73	4.7671	1.6543	.1936
High School	63	4.3175	1.3775	.1736
Total	136	4.5588	1.5433	.1323
Responsibility -				
Elementary	73	5.3425	1.3147	.1539
High School	63	5.0476	.9743	.1228
Total	136	5.2059	1.1745	.1007
Physical -				
Elementary	73	2.3562	.6946	.0813
High School	63	2.1746	.7939	.1000
Total	136	2.2721	.7450	.0639
Orientation -				
Elementary	73	4.6438	1.2176	.1425
High School	63	4.5079	1.3663	.1721
Total	136	4.5809	1.2856	.1102

icant difference in the mean stress scores of elementary and secondary principals. The mean social stress score for elementary principals was 1.7397. The elementary mean was significantly higher than the mean social stress score of secondary principals which was 1.5556.

The only question on the Job-Related Tension Index measuring the frequency of stress in the social category was the following:

How frequently do you feel bothered by each of these?

Feeling that you may not be liked and accepted by the people you work with.

Being liked and accepted by one's fellow workers was a more frequent concern of elementary principals than it was for high school principals. The elementary principal's need for acceptance may be at least partially explained by the observation that elementary principals probably work more closely with teachers on a daily basis than do secondary principals. In many high schools, department chairmen and/or assistant principals work more closely with the teaching staff in the areas of teacher evaluation, student discipline, and scheduling than does the principal.

One high school principal wrote the following comment next to question 10 on his Job-Related Tension Index:

Who cares - if you want to be loved, do not become a principal.

Although not all high school principals may have felt so indifferently about their staff's attitude, the need to be liked and accepted was less frequently a concern for

secondary principals.

Quantitative work overload was identified as a stressor for workers, in general by Kahn, Caplan and French, McLean, Yates, Kiev and Kohn, and Friend. Work overload was determined to be a stressor for school principals, in particular, by Vetter, Gmelch, Swent and Gmelch, Schuetz, Giammatteo, Piatt, Hughes, Gorton, and Brimm. Question number four on the Job-Related Tension Index asked principals how frequently they were bothered by "feeling that you have too heavy a work load, one that you can't possibly finish during an ordinary workday."

Although the elementary mean of 2.3562 was not significantly different from the high school mean, 2.1746, a closer analysis of the responses indicated differences between the elementary and secondary groups in the number of principals reporting the "never" and "rather often" alternatives. Only four percent of the elementary principals in the sample group responded by indicating a heavy workload "never" bothered them, but 15.8 percent of the high school principals were "never" bothered by too heavy a workload. At the other end of the scale, approximately eight percent of the principals in each group were bothered by too heavy a work load "nearly all the time". However, twenty-seven percent of the elementary principals, but only seventeen percent of the high school principals, were bothered "rather often" by their workloads.

There are several possible reasons why these differences

exist, only two of which will be suggested here. The first is that secondary school principals have more assistants to help them with their heavy work loads. This hypothesis was supported somewhat by the principals' responses to question eleven on the Attitude Survey. Approximately thirty-eight percent of the elementary principals, but twenty-seven percent of the high school principals indicated they "could really use some assistance" with their administrative and supervisory duties.

Another possibility is suggested in the research of Poppenhagen, Mingus, and Rogus who found that eighty-two percent of suburban elementary principals reported working between forty and sixty hours per week, but eighty percent of the suburban senior high principals reported working fifty-one to seventy hours per week.¹⁵ It may simply be that high school principals work more hours or days per week than elementary principals. "An ordinary workday" for a high school principal may well be a longer one than that worked by his counterpart in the elementary school. The secondary school administrator, therefore, may have more time in which to complete his or her tasks and thus feels stressed less frequently than the elementary principal who must complete his work load in a shorter period of time.

Question Eight: Are there significant differences between the mean stress scores of low expenditure and high expenditure principals on each of the following: growth, responsibility, physical, social, orientation, and security:

Null Hypothesis Eight: There is no statistically sig-

nificant difference between the mean stress scores of low expenditure and high expenditure principals for each of the following categories: growth, responsibility, physical, social, orientation, and security.

The Null Hypothesis cannot be rejected for any of the six categories. The group means for orientation, however, were significantly different at the .0527 level. (See Tables 8A and 8B) This finding supports the findings of the multiple regression analysis reported in Question Six. Orientation was determined to be the only significant predictor of group membership in the low expenditure and high expenditure groups. The fact that the orientation category produced group means which were significantly different (at the .0527 level), may be even more significant in view of the fact that the total Tension Index means were not significantly different for high and low expenditure groups and none of the other categories produced group means which were significantly different.

The means for the Hygiene categories, security and social were significantly different for school level and the Hygiene, orientation was nearly significant for expenditure level. It seems apparent, therefore, that Hygiene categories produced the only significant differences and the only significant prediction equations, whether the data were analyzed by school or expenditure level.

The total tension means and the categorical means may not have differed significantly because the operating expense levels may have clustered too closely to one another. For

TABLE 8A

ANALYSIS OF VARIANCE

JOB-RELATED TENSION INDEX CATEGORIES BY LEVEL OF EXPENDITURE

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Orientation -					
Between Groups	1	6.1838	6.1838	3.8199	.0527
Within Groups	134	216.9265	1.6189		
Total	135	223.1103			
Responsibility -					
Between Groups	1	2.9412	2.9412	2.1502	.1449
Within Groups	134	183.2941	1.3679		
Total	135	186.2353			
Security -					
Between Groups	1	6.6176	6.6176	1.9811	.1616
Within Groups	134	447.6176	3.3404		
Total	135	454.2353			
Growth -					
Between Groups	1	2.9412	2.9412	1.2371	.2680
Within Groups	134	318.5882	2.3775		
Total	135	321.5294			
Physical -					
Between Groups	1	.1838	.1838	.3295	.5669
Within Groups	134	74.7500	.5578		
Total	135	74.9338			
Social -					
Between Groups	1	.0074	.0074	.0268	.8702
Within Groups	134	36.7500	.2743		
Total	135	36.7574			

TABLE 88
ANALYSIS OF VARIANCE
JOB-RELATED TENSION INDEX CATEGORIES
BY LEVEL OF EXPENDITURE

Group	Count	Mean	Standard Deviation	Standard Error
Orientation -				
High Expend.	68	4.3676	1.1050	.1340
Low Expend.	68	4.7941	1.4201	.1722
Total	136	4.5809	1.2856	.1102
Responsibility -				
High Expend.	68	5.0588	1.1575	.1404
Low Expend.	68	5.3529	1.1815	.1433
Total	136	5.2059	1.1745	.1007
Security -				
High Expend.	68	5.4853	1.7913	.2172
Low Expend.	68	5.9265	1.8634	.2260
Total	136	5.7059	1.8343	.1573
Growth -				
High Expend.	68	4.4118	1.4786	.1793
Low Expend.	68	4.7059	1.6028	.1944
Total	136	4.5588	1.5433	.1323
Physical -				
High Expend.	68	2.2353	.7554	.0916
Low Expend.	68	2.3088	.7382	.0895
Total	136	2.2721	.7450	.0639
Social -				
High Expend.	68	1.6471	.5399	.0655
Low Expend.	68	1.6618	.5070	.0615
Total	136	1.6544	.5218	.0447

example, thirty-seven elementary principals were classified in the low expenditure group because their school districts spent \$1794 to \$2657 per pupil, annually. However, only four of these thirty-seven principals worked in districts which spent less than \$2200 per pupil. Twenty-one of the principals worked in districts which spent \$2348 per pupil or more.

Thirty-six elementary principals comprised the high expenditure group. These principals worked in districts which spent \$2668 to \$4394 per pupil, annually. Fourteen of these principals worked in districts which spent less than \$3000 per student and nineteen worked in districts spending less than \$3159 per student. Thus, forty elementary principals of the seventy-three in the sample fell within a range of \$810. (\$2348 - \$3158) The suburban elementary school districts in the sample may not have significantly differed with regard to expenditures per student.

High school districts also demonstrated a relatively narrow range of expenditures per pupil. Thirty-one high school principals were classified in the low expenditure group because their school districts spent \$3004 to \$3998 per pupil, annually. Closer examination revealed that only five of these principals worked in districts spending less than \$3587 per student, per year. Twenty-one of these high school principals worked in districts spending \$3752 or more per pupil.

Thirty-two secondary principals were designated as

members of the high expenditure group. These principals worked in districts which spent \$3999 to \$5903 per pupil, annually. Of these thirty-two principals, twenty-three worked in districts spending \$4338 per student or less. Thus, a total of forty-four secondary principals from the sample of sixty-three fell within a \$586 range (\$3752 - \$4338). Only the most extreme scores within this subgroup of forty-four differed by as much as \$586. Most expenditure levels were closer than \$586.

The lack of significant differences between the categorical means and the total tension means of the high and low expenditure groups may have been due to similarities in the financial status of the districts, themselves. Had urban, inner city, and rural schools been included in the sample, the results may have been quite different.

Question Nine: Is there a significant difference between the mean attitude score of elementary principals when compared to the mean attitude score of secondary principals?

Null Hypothesis Nine: There is no statistically significant differences between the mean attitude scores of elementary and secondary principals.

Null Hypothesis Nine can be rejected at the .05 confidence level. The mean score on the Attitude Questionnaire for elementary principals was 50.4932, while the mean attitude score for high school principals was 68.0159. (See Table 9A) The F probability calculated was .0001. Elementary scores ranged from a minimum of negative twenty-six to a maximum of ninety-one with a standard deviation of 29.4628.

TABLE 9A
ANALYSIS OF VARIANCE
TOTAL ATTITUDE SCORE BY SCHOOL LEVEL

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	1	10383.1149	10383.1149	15.8732 *	.0001
Within Groups	134	87653.2307	654.1286		
Total	135	98036.3456			

Group	Count	Mean	Standard Deviation	Standard Error	Minimum	Maximum
Elementary	73	50.4932	29.4628	3.4484	-26	91
High School	63	68.0159	20.1418	2.5376	-13	93
Total	136	58.6103	26.9480	2.3108	-26	93

* < .05

High school scores ranged from a minimum of negative thirteen to a maximum of ninety-three with a standard deviation of 20.1418.

Thus, elementary principals reported significantly lower job attitude scores when compared to high school principals. This finding is consistent with that of the National Elementary Principal's 1979 study which reported a high percentage of elementary principals were increasingly dissatisfied with their jobs.

The two mean scores should be considered with regard to the index used. The lowest possible score obtainable on the Attitude Questionnaire was negative ninety-five. A principal who disagreed with every positive statement and who agreed to every negative statement would produce such a score. The highest possible score obtainable was ninety-five. A respondent who agreed with every positive statement and who disagreed with every negative statement would achieve ninety-five as a total. A zero score indicated that the number of positive responses equaled the number of negative responses. A zero total score was theoretically possible, despite an odd number of items (ninety-five), due to the presence of a "Cannot Decide" alternative, which was scored as a zero.

Although the mean attitude score of high school principals was significantly higher than the mean attitude score of elementary principals, both means fell within the upper one quarter of the range of possible scores obtainable. It

would be a mistake, however, to conclude that, based on the group means, elementary and secondary principals were both relatively satisfied with their jobs, although this may be true. Positive means do not necessarily indicate job satisfaction nor do negative means indicate job dissatisfaction. A closer analysis of the Motivation and Hygiene categorical subscores is necessary before conclusions regarding job satisfaction and dissatisfaction can be drawn.

Table 9B shows the Motivation and Hygiene categories represented on the Attitude Questionnaire, the number of items in each, and the percent of the total test comprised by those items. It is evident that the total score on the Attitude Questionnaire is more affected by the Maintenance categories than by the Motivation categories. The four Motivation categories--growth, achievement, responsibility, and recognition--represented thirty-nine items or forty-one percent of the instrument. The six Maintenance (Hygiene) categories--physical, social, status, orientation, economic, and security--represented fifty-six items or fifty-eight percent of the Attitude Questionnaire. Because of this, the total attitude mean scores are more representative of the degree of job dissatisfaction (indicated by Maintenance categories) than they are representative of the presence of job satisfaction (indicated by the Motivation categories).

Question Ten: Is there a significant difference between the mean attitude score of principals in districts having a low operating expense per pupil when compared to the mean attitude score of principals in districts having a high operating expense per pupil?

TABLE 9B

ATTITUDE QUESTIONNAIRE

Motivation Categories	Number of Items	Percent of Total*
Growth	14	15%
Achievement	7	7%
Responsibility	12	13%
Recognition	6	6%
Total	39	41%
Maintenance (Hygiene) Categories	Number of Items	Percent of Total*
Physical	12	13%
Social	7	7%
Status	6	6%
Orientation	8	8%
Economic	7	7%
Security	16	17%
Total	56	58%

*Due to rounding off to the nearest whole number, one percent is not listed.

Null Hypothesis Ten: There is no statistically significant difference between the mean attitude score of principals in districts having a low operating expense per pupil and the mean attitude score of principals in districts having a high operating expense per pupil.

Null Hypothesis Ten cannot be rejected at the .05 significance level. The mean attitude score for principals in the high expenditure group was 60.6765. (See Table 10) The mean attitude score for principals in the low expenditure districts was 56.5441. The F probability calculated was .3732. Thus, although the mean attitude score of the high expenditure principals was higher, it was not significantly higher than the mean attitude score of the low expenditure principals.

Several possible reasons may explain why the group means were not significantly different from one another, three of which will be suggested here. First, as explained in the analysis of Question Eight, the total attitude means may not have differed significantly because the operating expense levels may have clustered too closely to one another. The majority of elementary and secondary principals in the sample worked in districts whose expenditure levels per student fell within narrow ranges. Thus, the lack of a significant difference between the attitude means of the high and low expenditure groups may have been due to similarities in the financial status of the school districts, themselves.

The hypothesis that the high and low expenditure groups were similar to one another is supported by the analysis of variance calculated for each category. (See Tables 16A and

TABLE 10
ANALYSIS OF VARIANCE
TOTAL ATTITUDE SCORE BY LEVEL OF EXPENDITURE

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	1	580.5956	580.5956	.7983 *	.3732
Within Groups	134	97455.7500	727.2817		
Total	135	98036.3456			

Group	Count	Mean	Standard Deviation	Standard Error	Minimum	Maximum
High Expend.	68	60.6765	23.8393	2.8909	-26	93
Low Expend.	68	56.5441	29.7700	3.6101	-18	93
Total	136	58.6103	26.9480	2.3108	-26	93

* >.05

16B on pages 227-230) It may be theorized that less financially able school districts would differ most significantly from wealthier districts in the physical facilities and financial incentives which they are able to provide for their employees. However, the attitude means for the physical and economic categories revealed no significant differences between the high and low expenditure groups. (See Table 16A on pages 227-228)

Another possibility may be that Operating Expense per Pupil was not the most appropriate indicator of the financial status of a school district. Perhaps other measures of financial status should have been used such as Assessed Valuation per Capita or Total Budgeted Expenditures Per Pupil. Other measures of financial status may have better differentiated between high and low districts.

It may also be possible that the Operating Expense per pupil was an appropriate measure of the wealth of school districts, but financial status of districts really had little to do with the attitudes of principals toward their jobs. The Motivators, growth, achievement, responsibility, and recognition may determine job satisfaction independently of the financial condition of the school district. While the Hygienes, physical and economic would most likely be affected by the financial state of the school system, no significant differences were discovered between the high and low expenditure groups for these categories. Thus, it is entirely possible that the financial status of the school

district impacted on none of the ten categories represented on the Attitude Questionnaire. Hence, it is possible that the means for the high and low expenditure groups were not significantly different because most of the questions and categories represented on the Attitude Questionnaire were unaffected by the financial state of the school district.

Question Eleven: Are there significant interactions between school level, operating expense per pupil, and mean attitude score?

Null Hypothesis Eleven: There is no statistically significant difference among the variances for school level by expenditure level.

Null Hypothesis Eleven cannot be rejected at the .05 significance level. The two-way interactions by school level and level of expenditure resulted in F probabilities of .082. Thus, the interactions were not statistically significant.

Elementary principals working in districts with low expenditures per pupil reported the lowest scores on the Attitude Questionnaire. (See Table 11) The mean for low expenditure elementary principals was 45.08. Elementary principals working in districts with high expenditures per pupil were shown to have the second lowest mean on the Attitude Questionnaire, 56.06. The scores of high school principals working in districts with high expenditures per pupil produced a mean attitude score of 65.88. Somewhat surprisingly, the highest mean attitude score of 70.23 was calculated for high school principals in districts with a low level of expenditure per student.

TABLE 11

ANALYSIS OF VARIANCE

TOTAL ATTITUDE SCORE BY
SCHOOL LEVEL AND LEVEL OF EXPENDITURE

Source of Variation	Sum of Squares	DF	Mean Square	F	Signif. of F
Main Effects	10893.669	2	5446.835	8.443 *	0.000
School Level	10313.074	1	10313.074	15.986 *	0.000
Level of Expenditure	510.554	1	510.554	0.791	0.375
2-Way Interactions	1985.111	1	1985.111	3.077	0.082
School Level	1985.111	1	1985.111	3.077	0.082
Explained	12878.781	3	4292.927	6.654	0.000
Residual	85157.565	132	645.133		
Total	98036.346	135	726.195		

Level of Expenditure

School Level	High	Low
Elementary	56.06 (36)	45.08 (37)
High School	65.88 (32)	70.23 (31)

* < .05

The finding that, for high school principals, those in the low expenditure group produced a higher mean job attitude score than secondary principals in the high expenditure group may seem an anomaly. However, it may be that principals in high school districts with less money to spend were aware of their school systems' financial condition and lowered their expectations with regard to working conditions and salary. Such principals may have reported little job dissatisfaction because they knew the districts in which they worked provided all that was possible, given their financial limitations.

It is entirely possible that principals in some of the wealthier high school districts (those with high levels of expenditure per pupil) expressed greater job dissatisfaction because they were aware of the fact that their school systems had the financial abilities to alleviate unsatisfactory working conditions or increase the levels of compensation, but choose not to do so. The difference between a school system's financial ability to provide more for its principals and its willingness to do so may be a more significant factor in the attitudes of principals toward their jobs than simply considering financial status alone.

The hypothesis that the difference between a school district's financial ability and its willingness to compensate principals accordingly is more important than financial status alone may explain the results produced by elementary principals. The mean attitude score of elementary principals

in the high expenditure group (56.06) was higher than the mean attitude score of elementary principals in the low expenditure group (45.08). This finding is not consistent with that for high school principals. Thus, a factor other than financial ability may be involved.

The results of the present study indicate that school level is more significant than operating expense per pupil in identifying the principal's job attitude. It appears that high school principals reported job attitude scores which were significantly higher than those reported by elementary principals, regardless of the per pupil expenditure. This finding regarding the job attitude scores of elementary and secondary principals suggests that the position of elementary principal is inherently less satisfying than that of the secondary school principal.

Question Twelve: Which subscores are most significantly correlated with the total attitude score?

Null Hypothesis Twelve: There is no statistically significant correlation between each subscore and the total job attitude score.

The Null Hypothesis may be rejected for each of the ten categories on the Attitude Questionnaire. All ten subscores were significantly correlated with the total attitude score. Each of the Pearson Correlation Coefficients calculated was significant beyond three decimal places.

The highest correlation coefficient was calculated for the security category (.8937), followed by responsibility (.8214), growth (.8205), orientation (.8117), achievement

(.8039), recognition (.7395), status (.7055), physical (.6118), social (.5827), and economic (.4935). (See Table 12) As with the correlation coefficients calculated for the Job-Related Tension Index, even the lowest coefficients were determined to be significant.

At least part of the reason the security category produced the highest correlation with the total Attitude Questionnaire may be attributed to the large number of statements from the security category. Sixteen items, more than in any other category, dealt with the issue of job security. Security statements comprised seventeen percent of the Attitude Questionnaire. Thus, the structure of the instrument probably contributed to the high correlation obtained for security.

Nine of the sixteen items pertaining to security on the Attitude Questionnaire dealt with the principal's relationship to his superiors. Of these nine items, three referred to the superintendent and the board of education, five referred only to the superintendent, and one statement was concerned with the friendliness of "most superiors". Dr. M. Scott Myers, under whose direction the original Attitude Questionnaire was developed, included assertions dealing with the employee's relationship with his superiors in the security and in other classifications. This same format was used in the revised Attitude Questionnaire utilized in the present study. Hence, the security category was heavily influenced by statements which Herzberg would have classified as "interpersonal relations with superiors".

TABLE 12
PEARSON CORRELATION COEFFICIENTS
ATTITUDE QUESTIONNAIRE

Security	.8937*
Responsibility	.8214*
Growth	.8205*
Orientation	.8117*
Achievement	.8039*
Recognition	.7395*
Status	.7055*
Physical	.6118*
Social	.5827*
Economic	.4935*

N = 136 *p < .000

Only two of the security items dealt with the possibility of the respondent's getting fired and one was concerned with the handling of terminations. Job security for principals, therefore, was linked to the principal's relationship with his superiors, and particularly with the superintendent.

The security category on the Tension Index was most highly correlated with the total tension score and the security category on the Attitude Questionnaire was most highly correlated with the total attitude score. Job security, then, particularly as it developed from the relationship to the superintendent, was a highly significant factor in the job stress and job attitude of principals.

After security, the responsibility category was most highly correlated with the total attitude score (.8214). Although twelve statements on the Attitude Questionnaire pertained to responsibility, an equal number of items were from the physical category which failed to produce a correlation coefficient larger than the correlation coefficients of seven other categories. Thus, although the construction of the instrument may have contributed to the responsibility category having a higher correlation coefficient, other factors may also have been involved.

Analysis of the twelve responsibility sentences reveals that six dealt with the principal's relationship with his superiors--five referred to the superintendent and one referred to the superintendent and the board of education. Two

statements pertained to the principal's relationship with his subordinates. Hence, eight of the twelve items dealt with the principal and his relationships with others in the work environment. This repeated a pattern similar to that found in the security category. It may be the quality of the principal's interrelationships with others on the job, rather than the degree of responsibility or job security, which was most highly correlated with the total attitude score.

The third highest correlation coefficient was calculated for the growth category (.8205) which was measured by fourteen items, more than any other category except security. Thus, once again, the construction of the attitude instrument, which contained categories represented by different numbers of items, may be at least partly responsible for the differences in the correlations obtained.

Of the fourteen statements, however, only two pertained to the principal's relationship with his superiors--one dealt with the superintendent and one was concerned with the superintendent and the board of education. Hence, relationships with others comprised only a very small fraction of the total on this category.

The orientation category, with a correlation coefficient of .8117, contained eight items, three of which mentioned the principal's relationship with the superintendent. However, two other statements--one about not getting enough instruction about how to do a job and another which indicated

the principal was being kept well informed about community events--may have related to the communication between a superintendent and the principal, depending on the interpretation of the sentence by the respondent. Therefore, the working relationship between the superintendent and the principal may have been a factor in producing the correlation coefficient which was obtained for the orientation category.

Two of the seven items in the achievement category ($r = .8039$) pertained to the superintendent. Four of the six items in the recognition category ($r = .7395$) were concerned with the principal's relationship to the superintendent--three mentioned the superintendent by name and one regarding fair treatment in the principal's most recent evaluation may have been interpreted as pertaining to the superintendent, if he was, in fact, the person who evaluated the principal. None of the six statements from the status category ($r = .7055$) pertained to the principal's relationship with the superintendent, although two were concerned with the principal's relationship with subordinates (teachers). The physical category ($r = .6118$) contained twelve items but only two references to the superintendent--one indicated that the superintendent and the board of education expected too much work from principals and the other indicated that the superintendent provided the principal with adequate supplies and equipment. The social category ($r = .5827$) was comprised of seven statements, all of which dealt

with relationships with other employees, but none of which specifically mentioned the superintendent or the board of education. The lowest correlation coefficient ($r = .4935$) was obtained for the economic category which contained seven items, none of which was concerned with the superintendent.

There appeared to be a relationship between the principal's relationship with his superintendent and the principal's score on the Attitude Questionnaire. In general, those categories having the highest correlation coefficients had a higher percentage of items dealing with the principal/superintendent relationship. The principal's working relationship with his superintendent appears to have affected the categories of security, responsibility, orientation, and recognition; and to a lesser extent the categories, growth, achievement, and physical. The findings suggest the superintendent affects the degree of job satisfaction enjoyed by the principal. Since, for many principals, the superintendent is the immediate superior of the principal, this is probably not surprising.

In the discussion of Question Ten, it was theorized that the financial status of school districts had little to do with the attitudes of principals toward their jobs. This hypothesis is consistent with the findings in the correlational analysis. The two categories most likely to be affected by the financial status of school districts, economic and physical, produced two of the smallest correlation coefficients, when compared with the total attitude scores.

Although only four Motivation categories (growth, achievement, responsibility, and recognition) were represented among the ten categories on the Attitude Questionnaire, these categories produced four of the six largest correlation coefficients. Only the Hygienes, security and orientation were ranked among the six largest correlation coefficients. In contrast, the four smallest correlation coefficients were obtained for Hygiene categories (status, physical, social, economic).

Question Thirteen: Using multiple regression analysis, is it possible to predict membership in the elementary or secondary group based on each attitude subscore total?

Null Hypothesis Thirteen: There are no combined attitude subscores that predict membership in the elementary or secondary group at a statistically significant level.

Using the technique of backwards multiple regression analysis, all ten categorical variables were considered together. (See Table 13) The multiple regression equation produced using all ten categories was significant at the .0205 level. The beta weights obtained, however, were not significantly different from zero. As the categorical variables were removed from consideration, one at a time in reverse order of significance, the prediction equations became significant at higher levels. However, only the growth category displayed beta weights which were significantly different from zero. Hence, the growth category was the only significant predictor of membership in the elementary and secondary groups.

The growth mean for elementary principals was 5.5205,

TABLE 13

BACKWARDS MULTIPLE REGRESSION

ATTITUDE QUESTIONNAIRE BY SCHOOL LEVEL

	Variable	Beta	Sig T
F = 2.22172 Signif F = .0205	Economic	.09441	.3272
	Social	-.09184	.3876
	Recognition	.05303	.6948
	Physical	.06165	.5314
	Status	-.09204	.4433
	Responsibility	.01699	.9066
	Growth	.24810	.0784
	Orientation	.03626	.7930
	Achievement	.14840	.2981
	Security	-.05114	.7704
Removed Responsibility F = 2.48650 Signif F = .0120	Economic	.09388	.3275
	Social	-.09220	.3836
	Recognition	.05100	.7024
	Physical	.06190	.5280
	Status	-.09226	.4403
	Growth	.25198	.0649
	Orientation	.04142	.7510
	Achievement	.14925	.2928
		Security	-.04310
Removed Security F = 2.80879 Signif F = .0067	Economic	.09375	.3263
	Social	-.09696	.3510
	Recognition	.03244	.7755
	Physical	.05801	.5484
	Status	-.09850	.3993
	Growth	.24450	.0662
	Orientation	.03901	.7637
	Achievement	.14483	.3022
		Security	
Removed Recognition F = 3.22149 Signif F = .0035	Economic	.09281	.3291
	Social	-.09309	.3646
	Physical	.05669	.5556
	Status	-.10188	.3792
	Growth	.25187	.0529
	Orientation	.05015	.6842
	Achievement	.15301	.2639

TABLE 13--Continued

	Variable	Beta	Sig T
Removed Orientation F = 3.75498 Signif F = .0018	Economic	.09736	.3011
	Social	-.08671	.3912
	Physical	.05901	.5375
	Status	-.09495	.4057
	Growth	.26928	.0281
Removed Physical F = 4.45070 Signif F = .0009	Achievement	.16413	.2200
	Economic	.11277	.2134
	Social	-.07665	.4412
	Status	-.09514	.4036
	Growth	.26713	.0289
Removed Social F = 5.43091 Signif F = .0004	Achievement	.18277	.1602
	Economic	.11196	.2160
	Status	-.10511	.3525
	Growth	.27838	.0217
Removed Status F = 6.95775 Signif F = .0002	Achievement	.13890	.2337
	Economic	.10748	.2339
	Growth	.24449	.0341
Removed Achievement F = 10.05603 Signif F = .0001	Achievement	.09402	.3749
	Economic	.10080	.2620
Removed Economic F = 18.80564 Signif F = .0000	Growth	.30751	.0008 *
	Growth	.35081	.0000 *

*Sig T < .05

while the growth mean for secondary principals was 9.1746. (See Table 15B on pages 208-209) The high school mean was significantly higher than the elementary mean (the F probability calculated was significant beyond .0000). High school principals, therefore, felt there were significantly more opportunities for professional growth in their jobs than elementary principals.

Analysis of the growth items revealed at least two types of professional growth. One type of statement dealt with the capacity for growth in the present position. For example, one item inquired about the opportunity for principals to use their skills and abilities. Another asked principals to agree or disagree with a statement which indicated that the principal could learn a great deal in the present job.

A second type of growth statement dealt with the issue of advancement to a higher position within the school district. Two items of this type were the following:

26. There are plenty of good job opportunities in this school system for those who want to get ahead.

91. I've gone as far as I can in this district.

It was evident in the responses to this type of growth statement that limited opportunities for advancement existed for both elementary and secondary principals. For example, secondary principals responded to item twenty-six in the following manner: thirty-eight percent agreed; forty-six percent disagreed; and sixteen percent could not decide.

Elementary principals responded as follows: five percent agreed; eighty-eight percent disagreed; and seven percent could not decide. Hence, only four of seventy-three elementary principals and twenty-four of sixty-three high school principals saw good opportunities for job advancement in their current school systems. The word, "plenty", may have affected the responses to this question, however. Some principals may have disagreed with the statement while others agreed because "plenty" had different connotations for different people.

Item ninety-one probably represented a less ambiguous statement. Forty-nine percent of high school principals felt they had advanced as far as possible in their current districts. Thirty-seven percent disagreed and fourteen percent could not decide. Forty-nine percent of elementary principals agreed, thirty-four percent disagreed, and sixteen percent could not decide. The two groups of principals, therefore, responded similarly to the extent that almost half of each group felt they would never receive another promotion from their present employer.

This lack of opportunity for promotion appears to have been a common concern for both elementary and secondary principals. It may have been due to the fact that there are fewer superintendencies and central office positions, when compared to the number of principalships. This would seem to be a fact of life for those in educational administration.

Of equal concern, however, is why elementary princi-

pals scored significantly lower than high school principals in opportunities for professional growth available in the present position. Thirty-three percent of the elementary principals in this sample indicated they had seriously considered getting a job elsewhere during the past six months (Item #79), but only sixteen percent of the high school principals had looked seriously for another job. This finding is consistent with the significantly lower attitude mean for elementary principals reported in Table 9. It would appear that not only were elementary principals less satisfied with their jobs, but one-third felt this lack of job satisfaction to the point of seriously considering leaving their positions. Since growth was the only significant predictor of membership in the elementary and secondary principal groups, it appears that the lack of opportunities for professional growth was a significant source of the lower levels of job satisfaction reported by elementary principals.

Question Fourteen: Using multiple regression analysis, is it possible to predict membership in the low expenditure and high expenditure group based on each attitude subscore total?

Null Hypothesis Fourteen: There are no combined attitude subscores that predict membership in the low expenditure or high expenditure group at a statistically significant level.

The Null Hypothesis cannot be rejected. None of the multiple regression equations or beta weights were significant at the .05 level (See Table 14). This finding is not surprising since the mean attitude scores for the low and

TABLE 14
 BACKWARDS MULTIPLE REGRESSION
 ATTITUDE QUESTIONNAIRE BY LEVEL OF EXPENDITURE

	Variable	Beta	Sig T	
F = .37946 Signif F = .9536	Economic	-.04708	.6472	
	Social	.01308	.9083	
	Recognition	-.20179	.1640	
	Physical	-.04570	.6642	
	Status	Not in	.9401	
	Responsibility	-.14671	.3439	
	Growth	.05077	.7346	
	Orientation	.11732	.4277	
	Achievement	-.07771	.6097	
	Security	.18776	.3171	
Removed Status F = .42434 Signif F = .9200	Economic	-.04728	.6443	
	Social	.01254	.9115	
	Recognition	-.19977	.1592	
	Physical	-.04535	.6651	
	Responsibility	-.14653	.3425	
	Growth	.04847	.7400	
	Orientation	.11566	.4272	
	Achievement	-.08065	.5821	
	Security	.18515	.3134	
	Removed Social F = .47956 Signif F = .8688	Economic	-.04778	.6392
Recognition		-.19965	.1578	
Physical		-.04390	.6715	
Responsibility		-.14704	.3387	
Growth		.04547	.7505	
Orientation		.11739	.4158	
Achievement		-.07564	.5860	
Security		.18884	.2940	
Removed Growth F = .53733 Signif F = .8049		Economic	-.03781	.6956
		Recognition	-.19749	.1603
	Physical	-.04737	.6443	
	Responsibility	-.13495	.3630	
	Orientation	.12452	.3801	
	Achievement	-.06497	.6285	
	Security	.19482	.2747	

TABLE 14--Continued

	Variable	Beta	Sig T
Removed Economic. F = .60522 Signif F = .7258	Recognition	-.19581	.1623
	Physical	-.05649	.5706
	Responsibility	-.13683	.3545
	Orientation	.11394	.4119
	Achievement	-.05932	.6557
	Security	.19093	.2820
Removed Achievement F = .69056 Signif F = .6314	Recognition	-.20201	.1462
	Physical	-.06552	.5005
	Responsibility	-.14374	.3266
	Orientation	.10073	.4562
	Security	.17190	.3167
Removed Physical F = .75222 Signif F = .5583	Recognition	-.19214	.1636
	Responsibility	-.14589	.3183
	Orientation	.08806	.5097
	Security	.14705	.3792
Removed Orientation F = .86094 Signif F = .4632	Recognition	-.16886	.2039
	Responsibility	-.10463	.4270
	Security	.15771	.3424
Removed Responsibility F = .97666 Signif F = .3793	Recognition	-.16839	.2046
	Security	.07842	.5537
Removed Security F = 1.60861 Signif F = .2069	Recognition	-.10891	.2069

high expenditure groups did not vary significantly. Thus, the categorical subscores exhibited a similar pattern to that of the total attitude means in that they failed to significantly differentiate between the high and low expenditure groups.

The fact that none of the multiple regression equations was able to accurately predict membership in the high and low expenditure groups suggests that the two expenditure groups may not have been significantly different from one another. This possibility was discussed in the analysis of Question Ten.

The hypothesis that the two expenditure groups did not significantly differ from each other was supported by the analysis of the results from Item #5 which stated the following:

The monies needed to run this school effectively are available.

Fifty-five of the principals in the high expenditure group (twenty-six elementary and twenty-nine high school) agreed with this statement, but forty-eight of the principals in the low expenditure group (twenty-three elementary and twenty-five high school) also agreed with the statement. Since both expenditure groups contained sixty-eight principals, the percentages of agreement were eighty-one percent for the high expenditure group and seventy-one percent for the low expenditure group. Had the two expenditure groups been significantly different in terms of financial ability,

the numbers of principals agreeing with statement #5 should have varied more considerably.

Only seventeen principals or twenty-five percent of the principals in the low expenditure group felt the monies needed to run their schools effectively were absent. (Three principals from the low expenditure group could not decide.) Eleven principals or sixteen percent of the principals in the high expenditure group felt the monies they needed were lacking. (Two principals from the high expenditure group could not decide.) The difference of six principals or nine percent does not appear to be particularly large. Thus, it appears the multiple regression analysis failed to generate accurate prediction equations and significant beta weights due to the similarities between the two expenditure groups.

Question Fifteen: Are there significant differences between the mean attitude scores of elementary and secondary principals on each of the following: growth, achievement, responsibility, recognition, physical, social, status, orientation, economic, and security?

Null Hypothesis Fifteen: There is no statistically significant difference between the mean attitude scores of elementary and secondary principals for each of the following categories: growth, achievement, responsibility, recognition, physical, social, status, orientation, economic, and security.

The Null Hypothesis may be rejected for the following categories:

growth	F probability	=	.0000
achievement	F probability	=	.0013
orientation	F probability	=	.0015
responsibility	F probability	=	.0021
security	F probability	=	.0037
recognition	F probability	=	.0061
economic	F probability	=	.0064

physical	F probability =	.0264
status	F probability =	.0304

The Null Hypothesis may not be rejected for the social category (F probability = .3505).

Tables 15A and 15B display the data derived from the analysis of variance. These results supported the multiple regression analysis which determined that growth produced the most accurate equation for predicting membership in the elementary and secondary groups. Growth, likewise, produced an F ratio of 16.8056 which was significant beyond .0000 in the analysis of variance. Except for the social category, the high school means were significantly higher than the elementary means in every category. Not only was the total attitude mean for high school principals significantly higher than the total attitude mean for elementary principals, but this pattern was consistently repeated in nine of ten sub-categories.

The highest score obtainable for the growth category was positive fourteen. The results reveal that three elementary and seven secondary principals recorded scores of positive fourteen. The lowest growth score obtainable was negative fourteen. No principal in either category recorded a negative fourteen, however the lowest elementary score was negative eleven while the lowest high school score was negative two. Of the seventy-three elementary principals in the study, twelve produced total growth scores which were negative. Only one of the sixty-three high school princi-

TABLE 15A

ANALYSIS OF VARIANCE

ATTITUDE QUESTIONNAIRE CATEGORIES BY SCHOOL LEVEL

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Growth -					
Between Groups	1	451.5176	451.5176	18.8056 *	.0000
Within Groups	134	3217.2985	24.0097		
Total	135	3668.8162			
Achievement -					
Between Groups	1	53.9140	53.9140	10.8568 *	.0013
Within Groups	134	665.4316	4.9659		
Total	135	719.3456			
Orientation -					
Between Groups	1	80.7779	80.7779	10.5676 *	.0015
Within Groups	134	1024.2809	7.6439		
Total	135	1105.0588			
Responsibility -					
Between Groups	1	108.4502	108.4502	9.8692 *	.0021
Within Groups	134	1472.4910	10.9887		
Total	135	1580.9412			
Security -					
Between Groups	1	374.8045	374.8045	8.7321 *	.0037
Within Groups	134	5751.5999	42.9224		
Total	135	6126.4044			

* < .05

TABLE 15A--Continued

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Recognition -					
Between Groups	1	57.1551	57.1551	7.7767 *	.0061
Within Groups	134	984.8376	7.3495		
Total	135	1041.9926			
Economics -					
Between Groups	1	88.1436	88.1436	7.6848 *	.0064
Within Groups	134	1536.9667	11.4699		
Total	135	1625.1103			
Physical -					
Between Groups	1	131.0915	131.0915	5.0401 *	.0264
Within Groups	134	3485.3129	26.0098		
Total	135	3616.4044			
Status -					
Between Groups	1	15.8743	15.8743	4.7852 *	.0304
Within Groups	134	444.5301	3.3174		
Total	135	460.4044			
Social -					
Between Groups	1	5.3894	5.3894	.8779	.3505
Within Groups	134	822.6106	6.1389		
Total	135	828.0000			

* < .05

TABLE 15B

ANALYSIS OF VARIANCE

ATTITUDE QUESTIONNAIRE CATEGORIES BY SCHOOL LEVEL

Group	Count	Mean	Standard Deviation	Standard Error
Growth -				
Elementary	73	5.5205	5.6938	.6664
High School	63	9.1746	3.7740	.4755
Total	136	7.2132	5.2131	.4470
Achievement -				
Elementary	73	4.0548	2.6817	.3139
High School	63	5.3175	1.5432	.1944
Total	136	4.6397	2.3084	.1979
Orientation -				
Elementary	73	5.1370	3.1239	.3656
High School	63	6.6825	2.2777	.2870
Total	136	5.8529	2.8611	.2453
Responsibility -				
Elementary	73	8.0822	3.8864	.4549
High School	63	9.8730	2.4919	.3139
Total	136	8.9118	3.4221	.2934
Security -				
Elementary	73	8.2740	7.1575	.8377
High School	63	11.6032	5.7685	.7268
Total	136	9.8162	6.7365	.5777

TABLE 15B--Continued

Group	Count	Mean	Standard Deviation	Standard Error
Recognition -				
Elementary	73	2.8904	3.0621	.3584
High School	63	4.1905	2.2350	.2816
Total	136	3.4926	2.7782	.2382
Economic -				
Elementary	73	2.6712	3.6211	.4238
High School	63	4.2857	3.0923	.3896
Total	136	3.4191	3.4696	.2975
Physical -				
Elementary	73	4.9041	5.1752	.6057
High School	63	6.8730	5.0113	.6314
Total	136	5.8162	5.1757	.4438
Status -				
Elementary	73	4.6164	2.2585	.2643
High School	63	5.3016	1.1164	.1406
Total	136	4.9338	1.8467	.1584
Social -				
Elementary	73	4.3151	2.8958	.3389
High School	63	4.7143	1.8788	.2367
Total	136	4.5000	2.4766	.2124

pals in the study evaluated growth in such a way as to produce a negative total. Five elementary principals scored a zero on the growth category, while only two high school principals achieved this score. Interestingly, of the twelve elementary principals who produced negative scores for growth, nine were from the low expenditure group.

The twelve elementary principals who rated growth as a negative category split evenly on the issue of district support for professional growth activities. Item ninety-five read as follows:

This district encourages and supports professional growth activities for principals (e.g., attendance at conventions, partial or full reimbursement for course work, etc.)

Six of the twelve elementary principals who rated growth as a negative category agreed with the statement while the other six disagreed. Thus, a school district's failure to financially support course work and attendance at conventions was mildly associated with negative growth total scores.

As indicated earlier, both elementary and secondary principals saw extremely limited opportunities for advancement or no possibility at all for promotions. The difference between elementary and secondary principals in the growth category, therefore, resulted from differences in opportunities for growth and individual fulfillment in the current job. Two statements which measured this were Items Twenty-five and Fifty-two.

25. I have little opportunity to use my abilities and skills in this district.

Eight of the twelve elementary principals who produced a negative total score for the growth category agreed with Item Twenty-five, while one could not decide. However, of all seventy-three elementary principals in the sample, twelve agreed with Item Twenty-five; fifty-eight disagreed; and three could not decide. Thus, eight of the twelve principals who felt they had little opportunity to use their skills and abilities were elementary principals whose total growth scores were negative ones. It would appear that the inability to use one's skills and abilities was an important factor for some elementary principals and was more highly correlated with producing a negative growth score than financial support for professional growth activities.

Of the sixty-three high school principals in the sample, sixty disagreed with Item Twenty-five; one agreed; and two could not decide. Hence, to an overwhelming degree, high school principals felt they were given opportunities to make use of their skills and abilities in their present jobs.

52. I can learn a great deal on my present job.

Eight of the twelve elementary principals who produced negative growth scores disagreed with Item Fifty-two, while two could not decide. However, of all seventy-three elementary principals in the sample, fifteen disagreed with Item Fifty-two; fifty-six agreed; and two could not decide. Thus, eight of the fifteen elementary principals who felt

they could no longer learn a great deal in their present position were principals whose total growth scores were negative ones.

High school principals responded somewhat differently to Item Fifty-two. Sixty-one of sixty-three secondary principals agreed that they could learn a great deal in their present job; only two disagreed. Thus, ninety-seven percent of high school principals, but seventy-seven percent of elementary principals felt they could continue to learn and grow in their current positions.

It appears that secondary principals perceived opportunities for professional growth as being more readily available in their current positions than elementary principals. The high school growth mean of 9.1746 represents a point approximately eighty-three percent higher than the lowest score obtainable (negative fourteen). The mean of elementary principals, 5.5205, represents a point approximately seventy percent higher than the minimum score. Although the elementary mean was positive, it was significantly lower, at least partly because of an elementary minority ranging between twelve and fifteen principals whose responses to items pertaining to individual growth possibilities in the current position indicated a definite lack of growth opportunities. Thus, the Hygiene, growth, produced a significant difference between elementary and secondary principals, pointing to more job dissatisfaction for elementary principals.

The achievement category produced an F ratio which

was significant at .0013. The high school mean of 5.3175 represents a point eighty-eight percent higher than the minimum of negative seven and the elementary mean of 4.0548 represents a point seventy-nine percent higher than the minimum. Because only seven statements comprised the achievement category, the highest possible score obtainable was positive seven. This maximum score was produced by seventeen elementary and nineteen secondary principals. The lowest possible score obtainable was a negative seven. The lowest score of negative four was produced by one elementary principal. In contrast, the lowest score produced by a high school principal was positive one.

Closer analysis of the elementary results revealed that only three elementary principals reported negative scores (-4, -3, -2), while five produced zero scores for the achievement category. Thus, sixty-five of seventy-three elementary principals, eighty-nine percent, reported positive achievement total scores, but one hundred percent of the high school principals reported positive achievement total scores. Thus, secondary principals reported achievement scores which were significantly higher than those of elementary principals, but both means appeared in the upper one quarter of the range of obtainable means.

The attitude means for orientation, responsibility, security, recognition, and status followed a pattern similar to that of achievement in that the elementary and high school means fell in the upper one quarter of the range of

possible means (except the elementary recognition mean at seventy-four percent), but in every case the high school mean was significantly higher (at the .05 significance level). In the orientation category, the elementary mean of 5.1370 was approximately eighty-two percent higher than the minimum while the high school mean of 6.6825 was ninety-one percent higher than the minimum mean. Both scores indicated a lack of job dissatisfaction for orientation since both means appear in the highest twenty percent of obtainable means.

In the responsibility category, the elementary mean of 8.0822 was approximately eighty-three percent higher than the minimum while the high school mean of 9.8730 was ninety-one percent higher than the minimum. Both means pointed to the presence of job satisfaction for the Motivator, responsibility since they were in the highest twenty percent of obtainable means.

The elementary mean for security was 8.2740. This was seventy-six percent higher than the minimum while the high school mean of 11.6032 was eighty-six percent higher than the minimum mean. Both the elementary and high school means were in the upper one quarter of scores obtainable, indicating a relatively low level of dissatisfaction due to lack of job security.

The recognition category produced an elementary mean of 2.8904 which was seventy-four percent higher than the minimum. The high school mean of 4.1905 was eighty-five percent higher than the minimum. Both means, then, indi-

cated a moderate amount of job satisfaction for recognition.

The elementary mean for status was 4.6164, or eighty-eight percent higher than the minimum mean of negative six. The high school status mean was 5.3016. This high school mean was ninety-four percent higher than the minimum mean. Hence, the status category displayed a definite lack of job dissatisfaction.

The means in the economic and physical categories, however, revealed a somewhat different pattern with respect to the location of the means within the range of means obtainable. The elementary economic mean was 2.6712. This mean is sixty-nine percent higher than the minimum mean of negative seven. The high school mean of 4.2857 was eighty-one percent higher than the minimum mean. Both economic means, although positive, appear to be somewhat lower relative to the maximum score of seven. This suggests the presence of a greater amount of job dissatisfaction for the economic category.

The economic category was composed of seven statements; five were concerned with salary and two with benefits. Of the seventy-three elementary principals, nineteen (twenty-six percent) produced negative totals for the five salary questions. Hence, for approximately one quarter of the elementary principals in the sample, salary was a source of job dissatisfaction. Of the remaining principals, seventeen (twenty-three percent) reported the highest obtainable score of positive five for the five salary statements. Thus,

approximately one quarter of elementary principals reported no job dissatisfaction due to salary. Approximately one half of the elementary principals, therefore, reported some job dissatisfaction due to salary, but not enough to produce negative total scores for the five salary items. Salary was viewed as more positive than negative by this majority, but there was some desire for improvement.

With respect to benefits, fourteen elementary principals (nineteen percent) produced negative total scores for the two benefits items. Approximately one in five elementary principals, then, viewed fringe benefits as a source of job dissatisfaction. On the other hand, thirty-six elementary principals (forty-nine percent) reported the highest obtainable score of positive two for the two fringe benefit statements. Approximately half of the elementary principals, therefore, indicated no job dissatisfaction with the fringe benefits programs currently being offered. Twenty-three elementary principals (thirty-two percent) reported scores of positive one or zero for the fringe benefit items. For these twenty-three principals, it appears that while they would wish to see their fringe benefits improved, they still did not consider their current programs as either negative or worthless. (A zero score, in this case, did not indicate a principal believed the fringe benefit program to be without value.)

The average elementary total for the five salary statements was 1.8 or .36 per item. The average elementary total

for the two fringe benefit statements was .88, or .44 per item. It is apparent that, for elementary principals, there existed more job dissatisfaction with salary than with fringe benefits. Approximately three quarters of the elementary principals reported at least some job dissatisfaction due to salary, but nearly half reported no dissatisfaction with fringe benefits.

High school principals reported similar results to those of elementary principals for the economic category in that more job dissatisfaction was indicated for salary than for fringe benefits. Of the sixty-three high school principals, twelve (nineteen percent) produced negative total scores for the five salary items. Twenty-three secondary principals (thirty-seven percent) reported the maximum score of positive five. Twenty-eight high school principals (forty-four percent) produced positive scores less than the maximum, indicating some job dissatisfaction about salary. Thus, sixty-three percent of the secondary principals in the sample group reported at least some job dissatisfaction with salary, of which nineteen percent resulted in negative salary scores.

For fringe benefits, only four of sixty-three high school principals (six percent) produced negative total scores for the two fringe benefit questions, but fifty-two principals (eighty-three percent) produced the maximum score obtainable. This indicated that the vast majority of secondary principals expressed no job dissatisfaction with the fringe benefit programs available to them.

The economic means for elementary and secondary principals appear somewhat low relative to the maximum score obtainable. This was due to greater job dissatisfaction with salary than with fringe benefits for both elementary and secondary principals.

The elementary mean for the physical category was 4.9041. This was seventy percent higher than the minimum mean of negative twelve. The high school mean was 6.8730. This was seventy-nine percent higher than the minimum mean. These scores were somewhat lower relative to the maximum score of twelve. Once again this suggests the possibility of a higher level of job dissatisfaction.

The twelve items from the physical category were classified as follows: four statements were concerned with excessive hours, work overload, and the principal's level of fatigue; three statements dealt with the presence of sufficient funds, supplies, and equipment; two statements related to general working conditions; there was one item each concerning administrative assistance, pressure on the job, and staff lunch facilities.

Twenty-nine percent of elementary principals and twenty-five percent of the high school principals produced negative total scores for the excessive hours/work overload subcategory. Approximately one quarter of each group, therefore, viewed excessive hours and/or work overload as a source of job dissatisfaction.

Thirty-four percent of the elementary principals and

forty-four percent of the high school principals reported the highest obtainable score of positive four for the four excessive hours/work overload/fatigue statements. More than one third of the elementary and secondary principals, therefore, reported no job dissatisfaction due to an excessively long workday, quantitative work overload, or fatigue.

Twenty-nine percent of the elementary principals and nineteen percent of secondary principals reported positive scores of one, two, or three. For these principals, some dissatisfaction with work load and/or work hours was evident, but this area of concern was still rated positive, overall. Eight percent of the elementary principals and eleven percent of the high school principals reported zero scores indicating one of the following:

- (1) An inability to agree or disagree with the items
- (2) Positive items counterbalanced by negative items
- (3) A combination of one and two

In conclusion, sixty-six percent of elementary principals and fifty-five percent of secondary principals reported at least some job dissatisfaction due to the hours, amount of work, and fatigue.

Nineteen percent of the elementary principals but only three percent of secondary principals indicated strong dissatisfaction with the level of funding, supplies, and equipment. This strong dissatisfaction took the form of negative total scores on the three items concerned with levels of available resources. Hence, lack of sufficient funds, supplies, and equipment appeared to be a more prevalent problem

for elementary than for secondary principals.

In contrast, fifty-six percent of the elementary principals but seventy-eight percent of the secondary principals reported the maximum total score of positive three on the three questions concerned with funding, supplies, and equipment. Hence, although a majority of the elementary principals indicated no job dissatisfaction with the available funding, supplies, and equipment, more than three quarters of the high school principals reported no job dissatisfaction due to money and equipment shortages.

Twenty-one percent of the elementary principals and nineteen percent of the high school principals reported positive scores of one and two. Only four percent of the elementary and no secondary principals produced zero scores. The mild dissatisfaction expressed by these principals was not sufficient to produce negative total scores.

In conclusion, forty-four percent of the elementary principals but only twenty-two percent of the secondary principals reported at least some dissatisfaction with funding, supplies, and equipment. Therefore, twice as many elementary as secondary principals reported some level of dissatisfaction with funding, supplies, and equipment.

The two items relating to general working conditions produced mostly positive scores. Only ten percent of seventy-three elementary principals and six percent of the sixty-three secondary principals reported negative total scores for the statements concerned with general working conditions.

On the other hand, fifty-three percent of the elementary principals and sixty-two percent of the high school principals reported the maximum total score, positive two. Twenty-nine percent of the elementary principals and twenty-two percent of the high school principals reported positive one scores while eight percent of the elementary and ten percent of the secondary principals reported zero scores. Thus, forty-seven percent of the elementary principals and thirty-eight percent of the secondary principals expressed at least some dissatisfaction with the general working conditions.

In conclusion, elementary and secondary principals indicated a moderate amount of job dissatisfaction due to their general working conditions. A majority of both types of principals produced maximum positive scores, however. The ambiguity of the term, "working conditions", may have contributed to confusion regarding this subcategory.

As reported earlier in this chapter, fifty-five percent of the elementary and sixty-three percent of the secondary principals indicated no need for assistance with supervisory and administrative duties. Thirty-eight percent of elementary principals and twenty-nine percent of high school principals indicated that they could use such assistance. The finding that only nine percent more elementary principals than secondary desired assistance with administrative and supervisory duties was somewhat surprising. Two hypotheses may be suggested--these principals were already receiv-

ing some form of administrative assistance or the principals felt they could handle their administrative and supervisory duties without assistance. It is entirely possible that both types of principals were represented in the sample. Unfortunately, it is not possible to determine which of these reasons, if either, caused the principals to respond as they did.

One item asked principals to agree or disagree with the following:

There is too much pressure on me in my job.

Fifty-eight percent of the elementary principals and sixty-two percent of the secondary principals disagreed, indicating that there was not too much pressure; twenty-seven percent of the elementary principals and twenty-seven percent of the secondary principals agreed that they suffered from too much pressure on the job; fifteen percent of the elementary principals and eleven percent of the high school principals could not decide. The majority of elementary and secondary principals produced data which were consistent with the data obtained from the Job-Related Tension Index. Although the mean tension score for elementary principals was significantly higher than that for secondary principals, both means indicated relatively low frequencies of stressful incidents. The fact that a majority of elementary and secondary principals disagreed with a statement on the Attitude Questionnaire indicating they were under too much pressure is consistent with these earlier findings from the

Tension Index.

Seventy-nine percent of the elementary principals and eighty-four percent of the secondary principals felt that the staff's lunch facilities were adequate. Therefore, very little job dissatisfaction in the physical category could be found in the staff lunch facilities subcategory.

Of the six classifications of statement types which comprised the physical category, those items pertaining to work hours, quantitative workload, and the principal's level of fatigue produced the most job dissatisfaction. Sixty-six percent and fifty-five percent of the elementary and secondary principals, respectively, reported at least some job dissatisfaction for this subcategory. The amount of dissatisfaction ranged from one less than the maximum positive score, positive three, to the lowest obtainable score, negative four. Only nineteen elementary and three high school principals expressed enough dissatisfaction to result in negative totals, however.

General statements about working conditions produced a moderate amount of job dissatisfaction. Forty-seven percent of the elementary and thirty-eight percent of the secondary principals expressed at least some dissatisfaction with conditions in the schools. Any principals who indicated a score less than the positive maximum was included in these percentages. Different interpretations of the term, "working conditions", make drawing conclusions from this subcategory difficult.

Thirty-eight percent of the elementary and twenty-nine percent of secondary principals reported they could use assistance with supervisory and administrative duties. Forty-four percent of the elementary principals, but only twenty-two percent of secondary principals expressed dissatisfaction with the availability of funds, supplies and equipment. Twenty-seven percent of principals at both levels reported that they suffered from too much pressure on the job. Only eighteen percent of elementary principals and eleven percent of high school principals were dissatisfied with their staffs' lunchroom facilities.

In the social category, the high school mean of 4.7143 was not significantly higher than the elementary mean of 4.3151. (See Tables 15A and 15B on pages 206-209) This was the only one of ten categories represented on the Attitude Questionnaire which failed to produce a significant difference between elementary and secondary principals. The elementary and secondary means were, respectively, eighty-one percent and eighty-four percent higher than the minimum score of negative seven.

The seven statements included in the social category were:

29. The district should provide more opportunities for employees to know each other.
34. The people I work with get along well together.
40. I work in a friendly environment.
59. I wish I had more opportunities to socialize with my associates.

60. The people I work with are very friendly.

67. I feel accepted by the people with whom I work.

93. There is too much personal friction among principals.

Each of the seven statements dealt with the principal's relationship to other employees. More specifically, six of the seven items would most likely be interpreted as referring to the principal's relationships with subordinates--teachers, clerical, and custodial staff members. Only one statement dealt with the principal's relationships with other principals.

Analysis of the results in the social category revealed that approximately one quarter of elementary and secondary principals reported the maximum score of positive seven (twenty-five percent of the high school principals and twenty-seven percent of the elementary principals) However, five elementary principals (seven percent) reported negative total scores for the social category, one of which was a negative seven, the lowest score obtainable. Only one secondary principal, however reported a negative total score for the social category and that was negative one. Thus, ninety-eight percent of the secondary principals and ninety-one percent of the elementary principals reported positive total scores for the social category. However, approximately three quarters of the principals in each group reported scores indicating areas of social relationships which could be improved. More elementary than secondary principals reported negative total social scores.

The slight, although not statistically significant, difference in group means between elementary and high school principals may be attributable to the closer contact between elementary principals and their staffs. Because of a greater frequency of daily contacts with other employees, particularly teachers, it is possible that the potential for disagreements and negative relationships was greater for elementary principals.

Secondary principals, on the other hand, may be more "insulated" from dealings with subordinates by hierarchies consisting of department chairmen, assistant principals, and supervisory and curriculum experts. Hence, only one secondary principal of sixty-three reported a negative total score for the social category.

Question Sixteen: Are there significant differences between the mean attitude scores of low expenditure and high expenditure principals on each of the following: growth, achievement, responsibility, recognition, physical, social, status, orientation, economic, and security?

Null Hypothesis Sixteen: There is no statistically significant difference between the mean attitude scores of low expenditure and high expenditure principals for each of the following: growth, achievement, responsibility, recognition, physical, social, status, orientation, economic, and security.

The Null Hypothesis cannot be rejected at the .05 significance level for any of the ten categories. (See Tables 16A and 16B) This should not be surprising since the total attitude scores for the high and low expenditure groups were not significantly different. The means of principals working

TABLE 16A

ANALYSIS OF VARIANCE

ATTITUDE QUESTIONNAIRE CATEGORIES BY LEVEL OF EXPENDITURE

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Recognition -					
Between Groups	1	12.3603	12.3603	1.6086	.2069
Within Groups	134	1029.6324	7.6838		
Total	135	1041.9926			
Responsibility -					
Between Groups	1	10.6176	10.6176	.9060	.3429
Within Groups	134	1570.3235	11.7188		
Total	135	1580.9412			
Achievement -					
Between Groups	1	4.5956	4.5956	.8616	.3550
Within Groups	134	714.7500	5.3340		
Total	135	719.3456			
Physical -					
Between Groups	1	14.8897	14.8897	.5540	.4580
Within Groups	134	3601.5147	26.8770		
Total	135	3616.4044			
Security -					
Between Groups	1	14.8897	14.8897	.3265	.5687
Within Groups	134	6111.5147	45.6083		
Total	135	6126.4044			

TABLE 16A--Continued

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Economics -					
Between Groups	1	3.8897	3.8897	.3215	.5717
Within Groups	134	1621.2206	12.0987		
Total	135	1625.1103			
Growth -					
Between Groups	1	8.0074	8.0074	.2931	.5891
Within Groups	134	3660.8088	27.3195		
Total	135	3668.8162			
Orientation -					
Between Groups	1	1.4412	1.4412	.1750	.6764
Within Groups	134	1103.6176	8.2360		
Total	135	1105.0588			
Status -					
Between Groups	1	.5956	.5956	.1736	.6776
Within Groups	134	459.8088	3.4314		
Total	135	460.4044			
Social -					
Between Groups	1	1.0588	1.0588	.1716	.6794
Within Groups	134	826.9412	6.1712		
Total	135	828.0000			

TABLE 16B

ANALYSIS OF VARIANCE

ATTITUDE QUESTIONNAIRE CATEGORIES BY LEVEL OF EXPENDITURE

Group	Count	Mean	Standard Deviation	Standard Error
Recognition -				
High Expend.	68	3.7941	2.4650	.2989
Low Expend.	68	3.1912	3.0482	.3696
Total	136	3.4926	2.7782	.2382
Responsibility -				
High Expend.	68	9.1912	3.3200	.4026
Low Expend.	68	8.6324	3.5235	.4273
Total	136	8.9118	3.4221	.2934
Achievement -				
High Expend.	68	4.8235	2.1575	.2616
Low Expend.	68	4.4559	2.4521	.2974
Total	136	4.6397	2.3084	.1979
Physical -				
High Expend.	68	6.1471	4.8570	.5890
Low Expend.	68	5.4853	5.4922	.6660
Total	136	5.8162	5.1757	.4438
Security -				
High Expend.	68	10.1471	6.4421	.7812
Low Expend.	68	9.4853	7.0510	.8551
Total	136	9.8162	6.7365	.5777

TABLE 16B--Continued

Group	Count	Mean	Standard Deviation	Standard Error
Economics -				
High Expend.	68	3.5882	3.5962	.4361
Low Expend.	68	3.2500	3.3563	.4070
Total	136	3.4191	3.4696	.2975
Growth -				
High Expend.	68	7.4559	4.8081	.5831
Low Expend.	68	6.9706	5.6144	.6808
Total	136	7.2132	5.2131	.4470
Orientation -				
High Expend.	68	5.9559	2.5359	.3075
Low Expend.	68	5.7500	3.1688	.3843
Total	136	5.8529	2.8611	.2453
Status -				
High Expend.	68	5.0000	1.6391	.1988
Low Expend.	68	4.8676	2.0436	.2478
Total	136	4.9338	1.8467	.1584
Social -				
High Expend.	68	4.5882	2.1457	.2602
Low Expend.	68	4.4118	2.7818	.3373
Total	136	4.5000	2.4766	.2124

in districts with high operating expense levels per pupil were higher in every category than the means of principals in districts with low operating expense levels per pupil. Yet, not one of the high expenditure means was significantly higher than the low expenditure mean in the same category. Thus, the high expenditure category means were consistently higher, but not significantly higher than the low expenditure means.

A certain degree of error may have been introduced into the classification of low and high expenditure districts by the age of the statistics used. The level of per pupil expenditure was determined by using the "Operating Expense Per Pupil" figures compiled by the Illinois State Board of Education, Department of Finance and Reimbursements. These figures were reported in Illinois Public School Financial Statistics 1981-1982 School Year.

Principals, however, were surveyed in February, 1984. Hence, the statistics regarding operating expense per pupil were approximately eighteen months old at the time they were used to classify principals into expenditure groups. (The financial statistics for the 1982-83 school year were not available until July of 1984.) It is conceivable that the financial status of at least some of the districts may have changed in the intervening time between the end of the 1981-1982 school year and February, 1984. Thus, principals working in school districts whose financial conditions had changed relative to other suburban Cook County public school

districts included in the sample may have responded to Attitude Questionnaires which were then incorrectly classified. Such an occurrence may at least partially explain why none of the differences observed within each category were significant.

Question Seventeen: What is the relationship, if any, between the job attitude scores for all principals studied and the job stress scores for all principals studied?

Null Hypothesis Seventeen: There is no statistically significant correlation between the total job attitude scores and the total job stress scores for all principals studied.

The Null Hypothesis may be rejected (See Table 17 below). The Kendall's Tau Correlation Coefficient computed using the total attitude and total stress scores was $-.5249$. Due to the relatively large sample size, this correlation coefficient was significant beyond $.000$.

TABLE 17

KENDALL CORRELATION COEFFICIENTS

TOTAL TENSION SCORE AND
TOTAL ATTITUDE SCORE

$-.5249$

N(136)

Sig $.000$

The fact that the correlation was negative, indicated an inverse relationship between job stress level and attitude. This was evident in the scores reported by elementary and secondary principals.

For elementary principals, the minimum score on the

Job-Related Tension Index was fourteen and the maximum was forty-two. The range for elementary principals on the Attitude Questionnaire was negative twenty-six to positive ninety-one. The elementary principal who reported the lowest tension score of fourteen produced an attitude score of positive seventy-seven. In contrast, the elementary principal who reported the highest tension score of forty-two produced an attitude total of positive five.

Four elementary principals reported the highest attitude score, ninety-one. All of these principals reported the identical score on the tension index--eighteen. These tension scores were quite low relative to the minimum of fourteen. One of these principals was in the low expenditure group and three were in the high expenditure group. The one elementary principal who reported the minimum attitude score of negative twenty-six also reported a tension score of twenty-nine, which was relatively high.

For secondary principals, the minimum score on the Job-Related Tension Index was fourteen and the maximum was thirty-seven. The range for secondary principals on the Attitude Questionnaire was negative thirteen to positive ninety-three. The high school principal who reported the lowest tension score of fourteen produced the highest attitude score of ninety-three. (Two other high school principals also produced attitude totals of ninety-three.) In contrast, the secondary principal who reported the highest tension score, thirty-seven, produced the lowest high school attitude score,

negative thirteen.

As reported earlier, three high school principals reported the highest attitude score, ninety-three. The tension scores for these three principals were fourteen, seventeen, and twenty-four. Somewhat surprisingly, two of the three high school principals reporting the highest attitude score were in the low expenditure group. The secondary principal who achieved the lowest attitude score, negative thirteen, produced the highest tension score, thirty-seven.

Even though the cases cited were, admittedly, the most extreme scores, they serve to illustrate a significant negative correlation existed between the total scores on the Job-Related Tension Index and the total scores on the Attitude Questionnaire.

Question Eighteen: What is the relationship, if any, between the job attitude Motivation scores and the job stress Motivation scores for all principals studied?

Null Hypothesis Eighteen: There is no statistically significant correlation between the job attitude Motivation scores and the job stress Motivation scores for all principals studied.

The Null Hypothesis may be rejected at the .05 level of significance. (See Table 18 on the following page) The Kendall's Tau Correlation Coefficient of $-.3882$ was significant beyond .000. Once again, the large sample size ($N = 136$) resulted in a modest negative correlation which was significant. On the Job-Related Tension Index, two categories made up the Motivation subscore--growth and responsibility. On the Attitude Questionnaire, however, four cate-

gories comprised the Motivation subscore--growth, responsibility, achievement, and recognition. It was these two Motivation subscores which were inversely correlated.

TABLE 18

KENDALL CORRELATION COEFFICIENTS

TENSION MOTIVATION SCORE AND
ATTITUDE MOTIVATION SCORE

-.3882

N(136)

Sig .000

The negative correlation produced using the tension and attitude Motivation subscores was of lesser magnitude than the negative correlation obtained using the total scores from the two instruments. This may have been due to the different degrees of correlation between the Motivation categories and the total instrument scores. In the analysis of Question Four, it was stated that the Hygiene or Maintenance categories were more highly correlated with the total Tension Score than were the Motivation categories. Thus, it appeared that factors pertaining to job dissatisfaction, particularly in the Hygienes security and orientation, were more highly correlated with the job stress of principals than were the Motivators, growth and responsibility.

In the discussion of Question Thirteen, the ranking of the correlation coefficients from the ten categories represented on the Attitude Questionnaire suggested that, in general, Motivators were more highly correlated with the total

attitude score than were Hygienes. However, these results were confounded by the presence of items pertaining to the superintendent/principal relationship in all four of the Motivation categories.

Hence, two reasons may be suggested which account for the lower magnitude of the negative correlation produced by comparing the Motivation subscores of the two instruments. First, Motivators were not highly correlated with the total tension score, but Motivators were more highly correlated with the total attitude score. Thus, simply considering the Motivation categories on the two instruments resulted in a negative correlation of lesser magnitude because the Motivation subscore was not as characteristic of the total tension score as the Hygiene subscore would have been. Hence, the comparison was made between the subscore which was most characteristic of the total attitude score with the subscore which was least characteristic of the total tension score.

The second reason which may account for the lower magnitude of the negative correlation coefficient produced for Motivation is that the presence of Hygiene-type questions pertaining to the principal's relationship with his superintendent (relationship with superior) in the four Motivation categories may have confounded the distinctive nature of this category on the Attitude Questionnaire. The magnitude of the negative correlation, therefore, was affected by statements which pertained to both job satisfaction (Motivation) and job dissatisfaction (Hygiene).

Question Nineteen: What is the relationship, if any, between the job attitude Maintenance scores and the job stress Maintenance scores for all principals studied?

Null Hypothesis Nineteen: There is no statistically significant correlation between the job attitude Maintenance scores and the job stress Maintenance scores for all principals studied.

The Null Hypothesis may be rejected at the .05 level of significance. (See Table 19 below). The Kendall's Tau Correlation Coefficient of $-.5043$ was significant beyond .000. The magnitude of the inverse relationships for Maintenance was greater than that for Motivation ($-.3682$), but not as great as that using the total scores from the two instruments ($-.5249$). On the Job-Related Tension Index, four categories made up the Maintenance subscore--physical, social, orientation, and security. On the Attitude Questionnaire, however, six categories comprised the Maintenance subscore--physical, social, orientation, security, status, and economic. It was these two Maintenance (Hygiene) subscores which were inversely correlated.

TABLE 19

KENDALL CORRELATION COEFFICIENTS

TENSION MAINTENANCE SCORE AND
ATTITUDE MAINTENANCE SCORE

$-.5043$

N(136)

Sig .000

The negative correlation produced using the tension and attitude Maintenance subscores was nearly the same as

that correlation produced using the total scores from the two instruments. The similarity of correlation coefficients may have been at least partially due to the fact that Maintenance items comprised the majority of items on both instruments. On the Job-Related Tension Index, eight of fourteen questions or fifty-seven percent of the total were Maintenance questions. On the Attitude Questionnaire, fifty-six of ninety-five statements or fifty-eight percent of the instrument was comprised of items concerned with Maintenance. Hence, the Maintenance correlation may have more nearly resembled the correlation of total instrument scores because of the construction of the instruments, themselves.

The negative correlation produced using Maintenance subscores was of a slightly less magnitude than the negative correlation obtained using the total instrument scores. This may have been due to the different degrees of correlation between the Maintenance categories and the total instrument scores, as described in the analysis of Question Eighteen. Maintenance categories were more highly correlated with the total tension score than were the Motivation categories, but Motivators were, in general, more highly correlated with the total attitude score than were Maintenance factors. Thus, the correlation which considered only Maintenance subscores on the two instruments utilized two sets of subscores, one of which was less characteristic of the total attitude score than the Motivation subscores would have been.

In conclusion, the Maintenance subscores from the two instruments produced a negative correlation of greater magnitude than the correlation produced using Motivation subscores. Hence, an inverse relationship of greater magnitude was indicated for Maintenance events. This finding suggests that the inverse relationship between attitude and stress was stronger for items related to job dissatisfaction than for items concerned with job satisfaction.

Question Twenty: What is the relationship, if any, between the measure for each of the following on the Attitude Questionnaire when compared to the measure of the same factor on the Job-Related Tension Index: growth, responsibility, physical, social, orientation, and security?

Null Hypothesis Twenty: There is no statistically significant correlation between each category (growth, responsibility, physical, social, orientation, and security) on the Job-Related Tension Index and the same category on the Attitude Questionnaire.

The Null Hypothesis may be rejected for the following categories: physical, security, orientation, growth, and responsibility. (See Table 20) The Null Hypothesis may not be rejected for the social category.

Table 20 demonstrates that the negative correlations of greatest magnitude were calculated for the Maintenance categories. The three categories with the greatest negative correlations were physical, security, and orientation--all Maintenance (Hygiene) categories. In contrast, two of the three smallest negative correlations were produced for the Motivation categories--growth and responsibility. This finding is consistent with the assertion that the inverse

TABLE 20
 KENDALL CORRELATION COEFFICIENTS
 JOB-RELATED TENSION INDEX AND
 ATTITUDE QUESTIONNAIRE

Category	Correlation	Sig.
Physical	-.5281 *	.000
Security	-.5200 *	.000
Orientation	-.4890 *	.000
Growth	-.2765 *	.000
Responsibility	-.2292 *	.000
Social	-.1067	.081

* < .05

relationship between attitude and stress was stronger for items related to job dissatisfaction (Maintenance events) than for items concerned with job satisfaction (Motivation events).

The Hygiene, social, was the only category which failed to produce a statistically significant negative correlation. Table 4 revealed that the principals' responses to the social questions on the Job-Related Tension Index produced the lowest correlation (.3865) with the total tension score. Table 12 revealed that the principals' responses to the social statements on the Attitude Questionnaire produced a correlation of .5827 with the total attitude score. Only the correlation coefficient for the economic category was smaller. Hence, the scores from the social category on the Job-Related Tension Index were not highly correlated with the total tension score and the scores from the social category on the Attitude Questionnaire were not highly correlated with the total attitude score. Thus, it should not be surprising that the social category failed to display a significant inverse relationship.

Further analysis, by school level, of the social data from the two instruments failed to reveal correlations significantly different from that produced when all principals were considered. The Kendall's Tau Correlation Coefficient produced using the tension social scores and attitude social scores of elementary principals was $-.0893$. The Kendall's Tau Correlation Coefficient produced for high school prin-

cipals was $-.1267$. Neither coefficient was significant at the $.05$ level.

Interviews

Eight respondents were randomly selected for follow-up interviews in the following manner: two were selected from the group of elementary principals working in districts reporting low per pupil expenditures; two were selected from those elementary principals working in districts reporting high per pupil expenditures; two were selected from the group of secondary school principals reporting low per pupil expenditures; and two were chosen from those secondary principals in districts reporting high per pupil expenditures. Interviews were conducted in August and September, 1984 and utilized questions regarding job satisfaction and dissatisfaction and job stress which were taken from a 1964 study published by Robert L. Kahn and others.¹⁶ (See Appendix C)

Seven of the eight principals interviewed indicated that, in general, a good job for them was determined by the dynamic nature of the position. One high school principal said his job satisfaction came from being involved, having an impact, and being action-oriented. Another high school principal identified a good job as one which was challenging and never boring. An elementary principal seemed to identify the same concept as the need for variety. A high school principal felt a job which provided him with a sense of accomplishment was a good one. Two principals derived satis-

faction from social interaction. One high school principal enjoyed being a friend and advisor to students and an elementary principal reported that "positive interaction with the people I work with" made a job worthwhile. "Where I can be of help and make a contribution" and "where I can feel growth" were conditions of job satisfaction set forth by an elementary principal from a western suburb. Only one individual said that his personal satisfaction was based on good working conditions. However, this same principal also named "accomplishment" and "seeing children achieve" as necessary conditions for a good job.

Thus, the Motivation factors of achievement and, to a lesser extent, growth were identified by elementary and secondary principals as being factors in making a job a good one for them. Of the Hygienes, social interaction with others was mentioned twice and good physical working conditions was reported once.

Another question asked principals to identify what made a job a bad one for them. Two high school principals indicated a meddling superintendent who interfered with the performance of their duties would constitute a negative factor. Two elementary principals commented that poor working conditions would make a job a poor one. However, one described poor working conditions as being unpleasant fellow workers and the other indicated the term meant understaffing, lack of instructional materials, and poor morale. A high school principal from a southwestern suburb said that a lack

of a sense of accomplishment or "no headway" would characterize a bad job for him. An elementary principal reported that any job which was tedious, boring and unchallenging would be stressful, and, hence, a bad one from his perspective. One individual identified qualitative work overload as a factor in job dissatisfaction -- "I'm in over my head". Finally, one principal felt any job without "people contact" would be a poor job choice for him.

Every one of the eight principals interviewed evaluated their current job as comparing favorably to the criteria they had identified earlier for a good job. The lowest ratings were from two high school principals, one of whom felt "moderately satisfied", and the other who was "satisfied". The remaining six individuals offered more enthusiastic evaluations of their positions. The following are quotes from these six principals:

I'm totally pleased; the negative factors are nonexistent.

Just super! Couldn't be better.

Perfect! The boss lets us do our work.

Very good, satisfying.

On a scale of one to ten, an eight.

I feel good about it.

To an overwhelming degree, principals expressed satisfaction with their current jobs. This finding was consistent with the relatively high attitude means reported earlier for both elementary and secondary principals.

One question asked what aspects of the principalship the interviewees found most satisfying. The responses of the elementary principals all pointed to the growth and achievement of students. These are listed below.

To see children learn and advance.

The challenge of dealing with young minds.

Working with children and seeing their successes.

Working with students and teachers on a one-to-one basis.

One elementary principal also identified a smooth, efficient day-to-day operation of the school as being a source of job satisfaction. Another elementary principal enjoyed the challenge of problem-solving: "Handling challenges and crises that arise and accomplishing the tasks at hand."

Problem-solving, however, was more characteristic of the responses of the secondary principals. Two of the four high school principals described the challenge of dealing with problems as being satisfying:

I enjoy problem-solving; meeting with these bright people and sharing problems and finding solutions.

Resolving problem situations for both students and adults.

Two other high school principals found the impact of being involved in the decision-making process and the freedom to perform job tasks without interference as being the most satisfying aspects of their jobs:

Having a say in what goes on.

The ability to do my own thing. I'm given a 'free hand' with no interference.

All four of the elementary principals, therefore, listed interpersonal relations with students as the most satisfying part of their jobs. High school principals, on the other hand, tended to view aspects of the job--successful problem-solving, decision-making, and independence--as the most satisfying component. It would probably be an over-generalization, however, to state that elementary principals were people-oriented and high school principals job-oriented. Although this tendency may seem apparent, two high school principals identified "working with people" and "meeting with these bright people" as satisfying. (In the latter case, the high school principal was referring to members of his administrative team.) One elementary principal mentioned problem-solving as satisfying.

It cannot be denied, however, that each elementary principal found satisfaction in some form of student contact. Not one secondary principal specifically mentioned students in their job satisfaction responses. Thus, the Hygiene, interpersonal relations, seemed to be more highly associated with the job satisfaction of elementary principals, but achievement and aspects of the job, itself (Motivators) were more associated with secondary principals' job satisfaction.

The data from the Attitude Questionnaire displayed in Tables 15A and 15B show that high school principals scored significantly higher on achievement than elementary princi-

pals. On the other hand, the social (interaction) category was the only one of ten categories which failed to show a significant difference between the responses of elementary and secondary principals. Hence, the interview data were consistent with the data obtained from the Attitude Questionnaire.

One interview question asked principals what they found least satisfying in their jobs. Three of the four high school principals identified paper work as the least satisfying aspect of their jobs:

Paperwork.

Red tape, paperwork, forms, etc.

Paperwork. Piles of it!

Two of the four elementary principals also identified paperwork:

Paperwork (unnecessary).

Handling paperwork, regimentation, new or uncomfortable things.

Three high school principals and two elementary principals were frustrated in their dealings with students, parents, staff members, and boards of education. Their responses appear below, with the high school principals first:

Dealing with parents who are disinterested in the welfare of their own children and unconcerned teachers just looking for their next paycheck.

Incompetency on the part of others.

I'm frustrated because I have to solve problems created by other people.

Dealing with negative parents, pressures from lay boards of education, dealing with unions.

The most difficult problem is keeping children at achievement level despite social environment, mobile families, one-parent families, absenteeism, truancy. I'm frustrated by things beyond the school's control.

It appears clear that paperwork, which was frequently viewed as unnecessary, and difficult relationships with other people constituted the two major sources of dissatisfaction for elementary and secondary principals. Paperwork, or quantitative work overload (physical category), and relations with others in the work environment were both classified by Herzberg as Hygienes. According to Herzberg's theory, Hygienes would be most prevalent in employees' stories of job dissatisfaction. This was found in the present study.

Table 12 displayed data which showed that security and responsibility were most highly correlated with the total attitude score. These two categories contained numerous questions regarding the principal's relationship to others in the workplace. Thus, the interview data were consistent with the findings derived from the Attitude Questionnaire in establishing the importance of relationships with other people as a factor in job satisfaction/dissatisfaction. The physical category, however, which contained statements about workload, was not as highly correlated with the total attitude score. Hence, the principals' responses in interviews regarding dissatisfaction with paperwork were not wholly supported by the Pearson Correlation Coefficient calculated for the physical category.

Principals were asked how their jobs could be redesigned and improved. One elementary and one high school principal felt that nothing could be done to improve their jobs:

Nothing could be changed. The negatives are built into the position.

Nothing. Some disliked things are a fact of life and part of the job.

One high school principal asked that his job description be changed: "Change the job responsibilities assigned to me. Subtract some and add others."

One elementary principal asked for more autonomy in selection and assignment of staff members: "Staff members are moved into my building from other buildings without my consent. These tend to be teachers who have had problems elsewhere."

One elementary and one secondary principal suggested altering the state's tenure laws.

Change the state tenure laws.

Change the tenure law. Make it easier to dismiss teachers so that we can weed out the deadwood.

An elementary principal suggested the passage of a new state law as follows: "Compulsory attendance for a minimum number of 170 days and extended school year for absentees." (This law would pertain to students.)

Two principals, one secondary and one elementary, suggested district reorganization as follows:

Bring the elementary and high school into one administrative unit.

The main office needs to be more organized and communicate better. They need to be more understanding of a principal's position.

Almost none of the principals felt there was much chance of their suggestion(s) being implemented in the near future.

Four statements from the Attitude Questionnaire were presented again in the interview and principals were asked to agree or disagree with each item. This was done in order to determine the reliability of the principal's responses. These statements were the following:

I'm really doing something worthwhile in my job.

The amount of effort I put into my job is appreciated in this school district.

The monies needed to run this school effectively are available.

I'm paid appropriately compared with other employees in the district.

The four statements represented the categories of achievement, recognition, physical, and economic, respectively. Since the survey instruments were mailed in February, 1984 and the interviews were conducted in August and September, 1984, a period of approximately four to six months had elapsed between the principals' first and second responses to these statements. During the interview, principals were not told that they had responded to these same items on the Attitude Questionnaire.

In the interview, each of the four high school principals responded to the four statements from the Attitude Ques-

tionnaire. Of these sixteen responses, twelve (seventy-five percent) were identical to the earlier written responses given by the same principal on the Attitude Questionnaire. (The responses of one principal were highly unreliable, differing from the earlier opinions on three of the four items.)

Of the sixteen responses given by the four elementary principals, twelve (seventy-five percent) were identical to the earlier responses. One principal evinced fifty percent agreement, two principals showed seventy-five percent agreement, and one displayed one hundred percent agreement. Of the four items where disagreement occurred, the "cannot decide" category was involved in two items. One elementary principal changed his response from "agree" to "cannot decide" and another switched from "cannot decide" to "disagree". Hence, two of the four disagreements were not opposite responses, but more subtle shifts between indecision and a particular point of view.

The moderate reliability found for specific items on the Attitude Questionnaire should be considered with regard to the total number of principals in the sample. Four secondary principals were interviewed from the sample of sixty-three (six percent). Four elementary principals were interviewed of the seventy-three in the sample (five percent).

The four repeated statements used as measures of reliability comprised approximately four percent of the ninety-five item Attitude Questionnaire. Hence, due to the rela-

tively small number of principals retested and the few items repeated, no major conclusions can be drawn regarding the reliability of the Attitude Questionnaire.

Principals were asked several questions about job stress in the interview. One question asked principals if they felt their job imposed some stress and pressure beyond that which most people experience. Despite the fact that elementary principals reported a significantly higher frequency of stress than secondary principals on the Job-Related Tension Index, three of the four elementary principals interviewed felt they did not suffer from any more stress than individuals in other occupations.

No, compared to other people, their stress would come from different sources. For example, an engineer trying to meet a deadline.

I don't think so. Every job has its pressures. Teachers have pressures. Salesmen have quotas.

The private sector has stress, but of a different type. Both are stressful. Any supervisory position will have stress.

The one elementary principal who felt more stressed than other occupations indicated the difference was a matter of responsibility. "Industry has it easier. Principals have it harder because we're dealing with the lives of children."

Somewhat surprisingly, each of the four high school principals interviewed felt they were under more stress than most people experience. Their responses were as follows:

Yes.

Oh yes. Definitely.

Principals have more stress than the average person.

Probably so. I am responsible for so many things it's frightening.

The interview data from this question, therefore, do not seem to support the finding that elementary principals were more frequently stressed than secondary principals. However, the answers given by the three elementary principals who reported they did not feel stress and pressure beyond that which most people experience acknowledged that other professions can be stressful, as well. Not one of these principals pointed to a lack of stress in their own profession.

Principals were asked to name conditions or situations with which they had to deal which they thought were particularly stressful or pressure-inducing. Three high school principals and four elementary principals indicated problems with parents in response to this question. High school principals tended to identify parents, without further explanation, while elementary principals explained in greater detail. Some comments of elementary principals were the following:

Staffing with parents who hold unrealistic expectations. We have problems with fathers to get them to understand that their child has a learning disability. It's frustrating when they won't allow their child to be helped when help is available.

Disagreements with parents about what ought to happen with regard to their child. You can't always do what a parent wants.

Different personalities. We have to work with a wide variety of people, not all professional people.

One elementary principal and one secondary principal identified contract negotiations with the teachers' union as being stressful. Two secondary principals named strikes or threatened strikes as stressors. One elementary and one secondary principal reported interference from the board of education. Two principals reported stress stemming from teachers.

Placing children in a class with a teacher who is not so good is stressful.

Dealing with irresponsible teachers is stressful.

Other stressful situations or conditions cited were the following: student discipline, fire in building, bomb threat, power blackout, a threatening letter anonymously sent to twenty-five students, being responsible for 3,000 students, meeting deadlines, monitoring building and grounds, grades, establishing legal residence for enrollment, required physical examinations, graduations, things my staff can't prevent, appearing before the board of education, too much to do.

Although a great variety of stressful situations and conditions were reported, seven of eight principals identified dealing with parents as stressful. Of those stressors cited more than once, all involved interpersonal relations--problem parents, contract negotiations, teacher strikes, meddling boards of education, inadequate or irresponsible teachers. Herzberg identified interpersonal relations as a

Hygiene factor. Thus, dealing with parents, teachers, students, and boards of education would most likely be classified as Hygienes. The interview data, therefore, were consistent with the assertion made in the analysis of Question Four that Hygienes were more highly correlated with job stress than were Motivators.

Principals were asked if there had been any instances in the last year or so when the pressure was so great that they felt they could not handle the situation. Each of the eight principals responded that this had not happened to them. Some of their comments were the following:

No, I'm proud of myself. I have been able to handle any situation which came through the door.

No. The longer you are in it, the more comfortable you feel.

No. You have down times, but you handle it.

Thus, principals felt they were able to deal with the problems and stressful situations which confronted them at school. Not one indicated he had been overwhelmed by a highly stressful emergency. This question, however, related more to the severity of the stress than the frequency of stress, which was measured by the Job-Related Tension Index. Hence, it would appear that neither the severity nor the frequency of stress experienced by elementary and secondary principals was beyond manageable levels.

In the interview, each of the four high school principals responded to two questions from the Job-Related Tension Index. Of these eight responses, four (fifty percent)

were identical to the earlier written responses given by the same principal on the Job-Related Tension Index. Principals were not told they had responded to these same questions four to six months previously. Of the eight responses given by the four elementary principals, three (thirty-eight percent) were identical to the earlier responses.

Several reasons may be suggested for the lower reliability scores pertaining to job stress. First, four alternative answers were presented -- "never", "sometimes", "rather often", and "nearly all the time". The Attitude Questionnaire provided three alternatives -- "agree", "disagree", and "cannot decide". There may have been more agreement with the attitude statements simply because there were fewer alternatives.

Second, the tension questions dealt with relative degrees of stress. The difference between "rather often" and "nearly all the time", for example, may have required the principal to make a fine distinction which could legitimately differ from time to time. The attitude statements, however, presented two mutually exclusive alternatives, "agree" and "disagree".

The responses to the tension questions were consistent with the second explanation. Of the four responses given by secondary principals which differed from the earlier answers, two changed from "never" to "sometimes" (one principal clarified "sometimes" to mean "rarely" in the interview), another changed from "rather often" to "sometimes", and the fourth

changed from "sometimes" to "nearly all the time". Except for the last modification, none of the changes represented more than a slight shift.

A similar pattern occurred in the responses of the elementary principals. Of the five responses given by elementary principals which differed from the earlier answers, one changed from "sometimes" to "never", two changed from "rather often" to "sometimes", one changed from "sometimes" to "nearly all the time", and one changed from "nearly all the time" to "sometimes".

The categories were assigned numerical equivalents as follows: "never" (1), "sometimes" (2), "rather often" (3), "nearly all the time" (4). The elementary changes represented three numerical shifts of minus one, one shift of positive two, and one shift of negative two. No principal changed a "never" response to "nearly all the time" nor did any principal shift from "nearly all the time" to "never". Hence, the changes were relatively slight and may have been at least partially due to fairly subtle distinctions between some of the frequency categories.

Chapter Summary

In Chapter Three, the twenty questions posed by this research were presented. The manner in which answers were sought to these questions was explained, and the data subsequently obtained were presented, analyzed, and interpreted. As a result of the data presented in this chapter, the

following major findings were reported:

- (1) Elementary and junior high school principals reported significantly higher frequencies of stressful incidents than secondary principals, yet both group means were relatively low with regard to the total range of possible scores, falling between "Sometimes" and "Never". Role ambiguity appears to have been a factor in producing this difference. Elementary principals were more frequently unclear about the scope and responsibilities of their jobs than were secondary principals.
- (2) No significant differences were discovered between the stress levels of principals in the high and low expenditure groups.
- (3) The study was unable to discover significant interactions between school level and expenditure groups for stress. Although not statistically significant, the mean for elementary principals in low expenditure districts was higher than the means for other elementary or secondary principals. School level was more significant than operating expense per pupil in identifying the principal's job stress level. High school principals experienced significantly lower frequencies of stressful incidents on the job, regardless of the per pupil expenditure, when compared to elementary principals.
- (4) The Maintenance categories, security and orientation,

were more highly correlated with the total job stress score than were the Motivation categories, responsibility and growth. Job dissatisfiers, then, were more highly correlated with job stress scores. The security items dealt with interpersonal relations with superiors. Thus, "relations with superiors" was most highly correlated with the total tension score.

- (5) The multiple regression analysis determined that security was the only significant predictor of membership in the elementary and secondary groups. Stress arising from lack of job security was a more frequent problem for elementary principals than it was for high school principals. Elementary principals were more frequently stressed because of worry about what the superintendent thought of them, a lack of knowledge about how they were being evaluated, the expectation that they would not be able to satisfy the conflicting demands of superiors, and feeling unable to influence the decisions and actions of their immediate superior.

Hygiene factors, particularly security, predicted membership in the elementary and secondary groups more accurately than did Motivation factors.

- (6) The orientation category on the Tension Index produced the most accurate equation for predicting membership in the low and high expenditure groups.

Principals in less financially able school districts reported higher levels of role ambiguity, qualitative work overload, and lack of communication which thwarted the achievement of job tasks.

- (7) Being liked and accepted by one's fellow workers (social category) was a more frequent concern of elementary principals than it was for high school principals. Some evidence indicated that quantitative work load was more of a stressor for elementary than secondary principals, although the group means were not significantly different.
- (8) With regard to the Job-Related Tension Index, the Hygiene category, orientation, displayed the only significant difference in the analysis of variance and the only significant prediction equation in the multiple regression analysis, when the data were analyzed by expenditure level.
- (9) Elementary principals produced job attitude scores which were significantly lower than those of high school principals.
- (10) The mean attitude score of the high expenditure principals was not significantly higher than the mean attitude score of the low expenditure principals.
- (11) The highest mean attitude score was calculated for high school principals in districts with low levels of expenditure per student. School level was more significant than operating expense per pupil in

identifying the principal's job satisfaction level, however. High school principals reported job satisfaction scores which were significantly higher than those reported by elementary principals, regardless of the per pupil expenditure.

- (12) Job security, particularly as it developed from the relationship to the superintendent, was a highly significant factor in the job attitude of principals.
- (13) The growth category was the only significant predictor of membership in the elementary and secondary groups on the Attitude Questionnaire. High school principals felt there were significantly more opportunities for professional growth in their present jobs than elementary principals.
- (14) The categorical subscores from the Attitude Questionnaire exhibited a pattern similar to that of the total attitude means in that they failed to accurately differentiate between the high and low expenditure groups.
- (15) The attitude means for achievement, responsibility, and recognition for elementary and secondary principals indicated high levels of job satisfaction. The means for orientation, security, and status indicated low levels of job dissatisfaction. In every case, however, the high school mean was significantly higher (at the .05 significance level).

The elementary and high school means suggested

the presence of a greater amount of job dissatisfaction in the economic category. High school and elementary principals reported more dissatisfaction with salary than with fringe benefits.

The elementary and high school means from the physical category suggested higher levels of job dissatisfaction, than in other categories. More than half of the elementary and secondary principals reported at least some job dissatisfaction due to the hours, amount of work, and fatigue. Twice as many elementary as secondary principals reported some level of dissatisfaction with funding, supplies, and equipment. Elementary and secondary principals indicated a moderate amount of job dissatisfaction due to their general working conditions.

The social category was the only one of ten categories represented on the Attitude Questionnaire which failed to produce a significant difference between elementary and secondary principals.

- (16) The means of principals working in districts with high operating expense levels per pupil were higher in every category than the means of principals in districts with low operating expense levels per pupil. Yet, not one of the high expenditure means was significantly higher than the low expenditure mean in the same category.
- (17) A significant negative correlation existed between

the job stress and job attitude scores of all principals in the sample.

- (18) The negative correlation produced using the tension and attitude Motivation subscores was of lesser magnitude than the negative correlation obtained using the total scores from the two instruments.
- (19) The Maintenance subscores from the two instruments produced a negative correlation of greater magnitude than the correlation produced using Motivation subscores.
- (20) The Hygiene, social, was the only category which failed to produce a statistically significant negative correlation when subscores from the same category were compared from the two instruments.

Interview Data

- (1) The Motivators, achievement and growth, and the Hygienes, social interaction with others and good working conditions, were identified by elementary and secondary principals as being factors in the determination of what constituted a good job.
- (2) Every one of the eight principals interviewed evaluated his/her current job as comparing favorably to the criteria they had identified for a good job.
- (3) The Hygiene, interpersonal relations, seemed to be more highly associated with the job satisfaction of elementary principals, but achievement and aspects

- of the job, itself (Motivators), were more associated with the job satisfaction of secondary principals.
- (4) Unnecessary paperwork and difficult relationships with other people, both of which are Hygienes, constituted the two major sources of dissatisfaction for elementary and secondary principals.
 - (5) High school principals interviewed felt they were under more stress than most people experience. Most elementary principals, however, felt there were other jobs which were just as stressful.
 - (6) Stressful conditions or situations cited more than once by elementary and high school principals all involved the Hygiene, interpersonal relations -- problem parents, contract negotiations, teacher strikes, meddling boards of education, inadequate or irresponsible teachers.
 - (7) None of the eight principals reported instances when the pressure was so great that they felt they could not handle the situation. Thus, principals felt they were able to deal with the problems and stressful situations which confronted them at school.

Footnotes

¹ Frederick Herzberg, Work and the Nature of Man (New York: World Publishing Company, 1966), p. 194.

² Ibid.

³ Ibid., p. 196.

⁴ Ibid., p. 193.

⁵ Ibid., p. 198.

⁶ M. Scott Myers, "Who Are Your Motivated Workers?" Harvard Business Review 42 (January/February 1964): 86.

⁷ Frederick Herzberg, Work and the Nature of Man (New York: World Publishing Company, 1966), p. 198.

⁸ M. Scott Myers, "Who Are Your Motivated Workers?" Harvard Business Review 42 (January/February 1964): 86.

⁹ Frederick Herzberg, Work and the Nature of Man (New York: World Publishing Company, 1966), p. 197.

¹⁰ M. Scott Myers, "Who Are Your Motivated Workers?" Harvard Business Review 42 (January/February 1964): 86.

¹¹ Ibid.

¹² Ibid.

¹³ Ibid.

¹⁴ Robert L. Kahn et al., Organizational Stress: Studies in Role Conflict and Ambiguity (New York: John Wiley and Sons, Inc., 1964).

¹⁵ Brent Poppenhagen, Julian Mingus, and Joseph Rogus, "Comparative Perceptions of Elementary, Junior High, And Senior High School Principals On Selected Work Related Variables," The Journal of Educational Administration XVIII (July 1980): 85.

¹⁶ Robert L. Kahn et al., Organizational Stress: Studies in Role Conflict and Ambiguity (New York: John Wiley and Sons, Inc., 1964).

CHAPTER IV

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The purpose of this study was to determine if relationships exist between sources of organizational stress of elementary and secondary suburban principals and their motivation to work. The Motivation and Hygiene needs of these principals were identified using the conceptual framework explained by Frederick Herzberg in The Motivation To Work.

The first part of the study measured organizational sources of stress and categorized those stresses into the theoretical framework devised by Herzberg and his associates. The second part of the study measured the sources of job satisfaction -- achievement, recognition, responsibility and growth -- and the sources of job dissatisfaction -- a lack of physical, social, status, orientation, security, and economic factors in the job environment. Through the use of correlational, ANOVA, and multiple regression analyses twenty Focussing Questions were investigated.

To accomplish the purposes of the study, five hundred four elementary and junior high school principals and seventy-one secondary school principals, all from suburban Cook County,

Illinois, were identified. One hundred twenty elementary principals were randomly selected and constituted the elementary sample group. All seventy-one secondary principals were included in the high school sample group.

The method of data-collection was accomplished through the use of written survey instruments which were mailed to each respondent in February, 1984. Secondary principals who failed to respond received a phone call the following month. Usable surveys were returned by seventy-three elementary principals and sixty-three secondary school principals.

For the purposes of this study, two separate written survey instruments were utilized. To measure job stress, a modified version of the Job-Related Tension Index was used. To measure job satisfaction/dissatisfaction, the study utilized a modified version of the 1963 edition of the Annual Employee Attitude Survey which was formerly administered to employees at Texas Instruments, Inc.

Since both instruments were altered for purposes of this study, it was necessary that they be field-tested to establish their validity. This was accomplished in January, 1984 when three elementary and three secondary principals from Lake County suburban schools field-tested the instruments and made suggestions for their improvement.

Eight respondents were randomly selected for follow-up interviews. Two elementary and two secondary principals were selected from low expenditure districts. Two elemen-

tary and two secondary principals were selected from high expenditure districts. The interviews were conducted in order to probe the sources of job stress and job satisfaction in a more comprehensive manner and to provide an indication of the reliability of the written answers the respondents had supplied earlier. These interviews utilized questions concerning sources of job satisfaction and job stress which were part of Robert L. Kahn's 1964 study of role conflict and ambiguity.

The responses on the Tension Index were compared to those on the Attitude Questionnaire using the technique of correlational analysis. Another correlational analysis was computed by comparing the scores for each category to the total score on the same instrument. This was done for the scores from both instruments to see which subscores correlated most significantly with the total scores.

The total scores from the Job-Related Tension Index were the dependent variable in a four cell, 2 x 2 factorial research design using the independent variables of school level (elementary and secondary) and the level of per pupil expenditure (high and low). One-way and two-way analysis of variance were used to test for significant differences between the group stress means. This same research design was repeated using the attitude means as the dependent variable.

Using multiple regression analysis, the subscores for each category on both instruments were used to predict mem-

bership in the elementary or secondary group and membership in the high or low expenditure group. The multiple regression equations and beta weights were tested for significance.

Conclusions

This section of Chapter Four presents the conclusions reached as a result of the present research relative to the sources of job stress and job satisfaction/dissatisfaction identified by elementary and secondary principals in suburban Cook County, Illinois. The twenty Focussing Questions presented on pages 2, 3, and 4 of Chapter One, which this study sought to answer, serve as the framework for the presentation of conclusions. Each question is restated, followed by a summary of the conclusions reached relative to that question.

Question One: Is there a significant difference between the mean job stress score of elementary principals when compared to the mean job stress score of secondary principals?

Suburban elementary and junior high school principals confronted stressful situations more frequently than did suburban secondary school principals. Elementary and junior high school principals reported significantly higher frequencies of stressful incidents than secondary principals.

The findings of the present study are consistent with those of Gorton (1982) and Farkas (1983) in that principals, regardless of school level, reported relatively low frequencies of stressful incidents. The elementary and secondary group mean on the Job-Related Tension Index fell between

"Sometimes" and "Never".

The results obtained from the Attitude Questionnaire were somewhat inconsistent, however. Twenty-seven percent of elementary principals and twenty-seven percent of secondary principals reported they suffered from too much pressure on the job. Several explanations may account for this difference as follows:

(1) The Job-Related Tension Index did not identify some of the sources of stress which most frequently "bothered" elementary and secondary principals.

(2) Even relatively low frequencies of stressful incidents may have been viewed by some individuals as causing too much pressure.

(3) Frequency of stress may not have been the most significant factor in the total stress level of individual principals. The intensity and/or duration of the stressful incidents may have been more highly correlated with the total stress level.

(4) Differences in the ways principals were asked to respond may have contributed to the difference in job stress levels on the two instruments. The Tension Index asked respondents to differentiate between "Never", "Sometimes", "Rather Often", and "Nearly All The Time". The Attitude Questionnaire merely asked principals to agree or disagree with a series of statements.

Question Two: Is there a significant difference between the mean job stress score of principals in districts having a low operating expense per pupil when compared

to the mean job stress score of principals in districts having a high operating expense per pupil?

School districts' operating expense per pupil did not significantly affect the job stress levels of elementary and secondary principals in the sample. Although the tension mean of the high expenditure principals was lower, it was not significantly lower than the tension mean of the low expenditure principals. Therefore, increasing the levies in the Education and the Operations, Building and Maintenance funds would not necessarily result in lower stress levels for principals in the district. The problem of principals' job stress is a complex one, and simple solutions involving general expenditures may have little effect on this problem.

Question Three: Are there significant interactions between school level, operating expense per pupil, and mean job stress score?

The study was unable to discover significant interactions between school level and expenditure groups for stress. School level was more significant than operating expense per pupil in identifying the principal's job stress level.

The finding that school level was more significant than operating expense per pupil in identifying the principal's job stress level is an important one. A school district's expenditure per pupil, especially relative to other districts, is capable of changing as the financial condition of the school district changes. Had the principals' job

stress level been more significantly affected by the monies spent, the job stress levels of principals would be more subject to change. However, the finding that the job stress scores of elementary principals were significantly higher than those of secondary school principals suggests that the sources of stress are more deeply imbedded in the structures of the suburban elementary and secondary school. This, in turn, would seem to indicate that the position of elementary principal is inherently more stressful than that of the secondary school principal.

Question Four: Which subscores are most significantly correlated with the total job stress score?

Extrinsic factors in the work environment leading to job dissatisfaction in the areas of security and orientation were more highly correlated with the job stress of principals than were the intrinsic motivators -- growth and responsibility. Job stress for principals, then, was more highly associated with a lack of Hygienes than with a lack of Motivators. Any attempt to alleviate the negative job stress of principals, therefore, should focus on the security and orientation needs of these individuals.

Question Five: Using multiple regression analysis, is it possible to predict membership in the elementary or secondary group based on each tension subscore total?

The multiple regression analysis determined that security was the only significant predictor of membership in the elementary and secondary groups. Stress arising from lack of job security was a more frequent problem for elementary

principals than it was for high school principals. Based on an analysis of the security items, it would appear that elementary principals communicated less frequently and/or less effectively with their superintendents than did secondary principals. This lack of effective communication resulted in elementary principals being more frequently stressed by role ambiguity, worry about what the superintendent thought of them, a lack of knowledge about how they were being evaluated, the expectation that they would not be able to satisfy the conflicting demands of superiors, and feeling unable to influence the decisions and actions of their immediate superior.

A related conclusion would be that high school principals communicated more frequently and/or more effectively with their superintendents (since their job stress scores for security were lower). There is no question that high school districts in suburban Cook County tend to have fewer schools and, therefore, fewer principals than many elementary districts. It should be easier for a high school superintendent to make personal contacts with a small number of principals than the superintendent of an elementary district.

Question Six: Using multiple regression analysis, is it possible to predict membership in the low expenditure and high expenditure group based on each tension subscore total?

Principals in less financially able school districts reported higher levels of role ambiguity, qualitative work overload, and lack of communication which thwarted the

achievement of job tasks. These data from the multiple regression analysis indicate that principals in less financially able school districts (as determined by the level of expenditure per pupil) have been asked to assume additional jobs and responsibilities which are not only poorly defined or explained, but jobs which these principals felt unqualified to handle. For example, one elementary principal wrote the following comments:

I am in charge of

1. Bus System for the district
2. Day Care Program - only one in district
3. District pre-school special education program for district
4. Principal K-5 building of 300 students

Another elementary principal wrote the following:

Due to economy in district as many others -- we have no assistants to Supt. or department chairpersons. All asst. principals have been cut. I'm in my building (425 children E.C.E. to 6 with 6 special ed classes) only 2-3 days a week. (Some principals now have 2 building responsibilities.) I coordinate district curriculum for 7 districts. Also have a myriad of other responsibilities beyond that of a building administrator.

It must be acknowledged however, that factors other than the lack of financial resources may account for the assignment of additional responsibilities to building principals. For example, very small school districts with severe declines in student enrollment may feel the need to cut back on central office personnel. The responsibilities formerly held by such staff members may be reassigned to principals.

Question Seven: Are there significant differences between the mean stress scores of elementary and secondary principals on each of the following: growth, responsibility, physical, social, orientation, and security?

Being liked and accepted by one's fellow workers (social category) was more frequently a concern of elementary principals than it was for high school principals. This finding was consistent with the interview data which determined that elementary principals more readily identified positive social interaction with other employees as a factor which made a job a good one for them. Thus, good relations with staff was not only a more frequent concern of elementary principals, but one which they tended to identify as an integral part of a good job.

Question Eight: Are there significant differences between the mean stress scores of low expenditure and high expenditure principals on each of the following: growth, responsibility, physical, social, orientation, and security?

Principals in low expenditure districts reported significantly higher stress frequencies (at the .0527 level) for orientation than principals in high expenditure districts. These results from the analysis of variance were consistent with those reported for the multiple regression analysis. This finding that a significant difference existed between the stress-orientation means of the high and low expenditure principals supports the assertion made earlier that job stress, for principals, was more highly associated with a lack of Hygiene~~s~~ than with a lack of Motivators.

Question Nine: Is there a significant difference between the mean attitude score of elementary principals when compared to the mean attitude score of secondary principals?

The mean attitude score of elementary principals was

significantly lower than the mean attitude score of high school principals. However, both the elementary and the high school attitude means fell within the upper one quarter of the range of possible scores. A similar pattern was observed for almost every one of the ten subcategories. For the most part, then, elementary and secondary principals in suburban Cook County, Illinois expressed relatively high levels of job satisfaction and relatively low levels of job dissatisfaction. This conclusion was supported by the interview data which showed every one of the eight principals evaluated his/her job as comparing favorably to the criteria they had identified for a good job.

Question Ten: Is there a significant difference between the mean attitude score of principals in districts having a low operating expense per pupil when compared to the mean attitude score of principals in districts having a high operating expense per pupil?

School districts' operating expense per pupil did not significantly affect the job attitude scores of elementary and secondary principals in the sample. Although the mean attitude score of the high expenditure principals was higher, it was not significantly higher than the mean attitude score of the low expenditure principals. It appears that the financial status of school districts, as reflected by the operating expense per pupil, had little to do with the attitudes of principals toward their jobs.

Question Eleven: Are there significant interactions between the school level, operating expense per pupil, and mean attitude score?

The study was unable to discover significant inter-

actions between school level and expenditure groups for job attitude. School level was more significant than operating expense per pupil in identifying the principal's job attitude.

The study determined that high school principals in the low expenditure group produced a higher mean attitude score than secondary principals in the high expenditure group. This finding of higher attitude means for low expenditure high school principals is consistent with the conclusion that the financial status of school districts, as reflected by the operating expense per pupil, had little to do with the attitudes of principals toward their jobs.

Question Twelve: Which subscores are most significantly correlated with the total attitude score?

Although all ten subscores were significantly correlated with the total attitude score, in general, the highest correlation coefficients were produced for those categories having a greater percentage of items dealing with the principal/superintendent relationship. The relationship to the superintendent, therefore, was a highly significant factor influencing the job attitude of principals.

The ranking of the correlation coefficients from the ten categories represented on the Attitude Questionnaire suggests that, in general, Motivators were more highly correlated with the total attitude score than were Hygienes. However, these results were confounded by the presence of items pertaining to the superintendent/principal relationship in

all four of the Motivation categories. Relationship with Superior(s) is a Hygiene category and the superintendent/principal relationship would fall within this classification. Thus, the assertion that Motivators were more highly correlated with the total attitude score must be qualified due to the overlapping of the Motivation and Hygiene categories.

Question Thirteen: Using multiple regression analysis, is it possible to predict membership in the elementary or secondary group based on each attitude subscore total?

Elementary and secondary principals indicated lack of opportunities for promotion in their school districts. High school principals, however, felt there were opportunities for professional growth in their present jobs to a much greater extent than did elementary principals. Not surprisingly, elementary principals were more than twice as likely as secondary principals to have reported giving serious consideration to quitting during the previous six months.

It appears that the lack of opportunities for personal and professional growth on the job was a more prevalent and serious problem for elementary principals than it was for high school principals. Elementary principals considered seeking employment elsewhere as a more viable option than secondary principals.

Question Fourteen: Using multiple regression analysis, is it possible to predict membership in the low expenditure and high expenditure group based on each attitude subscore total?

None of the attitude subscores were able to accurately predict membership in the high and low expenditure groups.

The multiple regression analysis and the principals' responses to Item #5 on the Attitude Questionnaire led to the conclusion that the low and high expenditure groups did not differ significantly with respect to financial ability.

Question Fifteen: Are there significant differences between the mean attitude scores of elementary and secondary principals on each of the following: growth, achievement, responsibility, recognition, physical, social, status, orientation, economic, and security?

Except for the social category, the high school means were significantly higher than the elementary means in every category. Analysis of the Motivation categories revealed significantly higher means for high school principals in every category. Hence, secondary principals reported higher levels of job satisfaction than elementary principals.

Analysis of the Hygiene categories revealed that in every case but one (the social category), secondary principals reported group means which were significantly higher than the means reported by elementary principals. Thus, high school principals reported lower levels of job dissatisfaction than elementary principals. High school principals, therefore, had significantly more of their Motivation and Hygiene needs satisfied than elementary principals.

The elementary and high school means suggested the presence of a greater amount of job dissatisfaction in the economic and physical categories. In the economic category, salary was a greater source of dissatisfaction for elementary and secondary principals than were fringe benefits. In the physical category, elementary and high school principals

reported dissatisfaction due to hours, amount of work, fatigue and general working conditions. Elementary principals, however, reported dissatisfaction with funding, supplies, and equipment twice as often as secondary principals. Lack of funding, supplies, and equipment, therefore, was perceived to be more of a problem in suburban elementary schools than in suburban secondary schools.

Question Sixteen: Are there significant differences between the mean attitude scores of low expenditure and high expenditure principals on each of the following: growth, achievement, responsibility, recognition, physical, social, status, orientation, economic and security?

School districts' operating expense per pupil did not significantly affect any of the job attitude subscores calculated for elementary and secondary principals in the four Motivation and six Hygiene categories. Although the means of principals working in districts with high operating expense levels per pupil were higher in every category than the means of principals in districts with low operating expense levels per pupil, not one of the high expenditure means was significantly higher than the low expenditure mean in the same category.

Question Seventeen: What is the relationship, if any, between the job attitude scores for all principals studied and the job stress scores for all principals studied?

Job stress was negatively correlated with job attitude. A modest, but significant, negative correlation existed between the job stress and job attitude scores of all principals in the sample. Elementary and secondary principals who

reported relatively high frequencies of job stress tended to report lower job attitude scores. Principals reporting relatively low frequencies of stressful incidents on the job tended to report higher job attitude scores. This inverse relationship between attitude and stress existed for both elementary and secondary principals in the sample.

Question Eighteen: What is the relationship, if any, between the job attitude Motivation scores and the job stress Motivation scores for all principals studied?

A small negative correlation existed between the Motivation scores from the Job-Related Tension Index and the Motivation scores from the Attitude Questionnaire. However, the magnitude of this negative correlation was less than that obtained using the total scores from the two instruments. The inverse relationship between attitude and stress, therefore, was weaker for items concerned with job satisfaction (Motivators).

Question Nineteen: What is the relationship, if any, between the job attitude Maintenance scores and the job stress Maintenance scores for all principals studied?

The Maintenance subscores from the Job-Related Tension Index were compared to the Maintenance subscores from the Attitude Questionnaire. The negative correlation produced was of greater magnitude than the correlation produced using Motivation subscores. The inverse relationship between attitude and stress, therefore, was stronger for items related to job dissatisfaction (Maintenance) than for items concerned with job satisfaction (Motivators). The absence or lack of Hygienes in the job environment was more highly

correlated with higher frequencies of job stress than the absence or lack of opportunities for growth, achievement, responsibility and recognition. Job dissatisfaction, then, was more highly correlated with job stress than the lack of job satisfaction.

Question Twenty: What is the relationship, if any, between the measure for each of the following on the Attitude Questionnaire when compared to the measure of the same factor on the Job-Related Tension Index: growth, responsibility, physical, social, orientation, and security?

The negative correlations of greatest magnitude were calculated for the Maintenance categories. The Hygienes -- physical, security, and orientation -- produced the negative correlation coefficients of greatest magnitude. Hence, job dissatisfaction in these three areas was most highly correlated with higher frequencies of job stress.

Recommendations

The following recommendations are based on research data and the preceding conclusions.

For Boards of Education

1. In order to assist the elementary and secondary principals who reported suffering from too much job stress, it is recommended that school districts administer diagnostic stress tests to all principals. Those found to be suffering from unhealthy levels of stress should be assisted in developing stress reduction techniques. This program needs to be conducted, particularly with regard to elementary princi-

pals, who, typically, suffered from significantly greater frequencies of stressful incidents on the job than high school principals.

2. Increase the opportunities for personal and professional growth on the job, particularly for elementary principals. There may be many ways to achieve this recommendation. For example, districts should encourage and financially support professional growth activities for principals such as attendance at conventions and seminars, partial or full reimbursement for course work, and provide other incentives for professional growth. Another type of needed growth indicated on the Attitude Questionnaire is to give principals greater opportunities to use their skills and abilities. This might be achieved through promotions, increased participation in decision-making on the part of the principal, or in other ways.

3. It is recommended that principals' salaries and responsibilities be studied in order that appropriate compensation may be paid to principals.

4. Particularly in elementary districts, it is recommended that communities and boards of education assure that adequate funding, supplies, and equipment are available. (Somewhat surprisingly, nineteen percent of the elementary principals in the sample from suburban Cook County, Illinois expressed strong dissatisfaction with the level of funding, supplies, and equipment.)

5. It is recommended that school districts employ addi-

tional administrative personnel, where needed. (Thirty-eight percent of elementary principals and twenty-nine percent of high school principals indicated they could use such assistance.)

For School District Superintendents

1. Increased communication, particularly between superintendents and elementary principals is recommended. This may be accomplished through the following means:

- a. specific job descriptions for principals
- b. medial evaluations of the principal at various points throughout the school year to provide more consistent feedback in terms of how the principal's job performance is viewed by his/her superiors.
- c. specified line and staff relationships in order that the principal be directly responsible to one superior (in order to avoid conflicting demands made by different superiors)
- d. two-way communication between superintendent and principal such that the principal feels able to influence decisions and actions which impact on him or her

2. To relieve some of the stress of principals in less financially able school districts, it is recommended that such principals be adequately trained for any increased job responsibilities they are given. As a principal's job definition is changed, it is important that these new responsibilities be clearly stated.

3. It is recommended that opportunities for social interaction between staff members and elementary principals be created. Being liked and accepted by one's fellow workers was a frequent concern of elementary principals and was a factor identified in their definitions of a good job.

4. Improve superintendent/principal relationships to the extent possible. The quality of this relationship heavily influenced the principal's job attitude. Job security, for example, which was most highly correlated with a positive job attitude, was identified with the fairness, consistency, reassurance, and friendliness of superiors, particularly the superintendent. The superintendent's exercise of good communication and human relations skills in dealing with principals would contribute not only to greater feelings of job security for principals, but a more positive total job attitude. (The superintendent/principal relationship was determined to affect those categories which were most highly correlated with the total job attitude score.)

5. It is recommended that, to the extent possible, the amount of work, particularly paperwork, required of principals be reduced or limited. Unnecessary and burdensome paperwork was cited in interviews as a major source of job dissatisfaction.

6. It is recommended that principals be provided with training in communication and conflict-resolution skills. Interviewed principals reported the necessity of dealing with "difficult parents" as a major source of job stress.

The parent meeting may also be structured so that other school professionals, supportive of the principal, are in attendance. These recommendations may help to "defuse" what was frequently reported as being a stressful situation for the principal.

For the Graduate Schools of Administration and Supervision

1. Initiate research studies designed to identify organizational sources of job dissatisfaction related to higher stress levels for principals. Based on the conclusions of the present study, these research studies should focus on Hygiene factors in the school environment.

2. Design and implement courses at the graduate level in administration and supervision relating the organizational sources of job stress, job satisfaction, and job dissatisfaction to graduate students. These students need to be assisted in developing personal techniques and strategies for stress management.

3. Provide conference and workshop resources directed toward providing career counseling for principals (particularly elementary principals) who are seriously considering changing professions.

Recommendations For Further Study

Researchers should replicate this study with the following modifications:

1a. Utilize an instrument which measures not only the

frequency of job stress, but one which also measures the intensity and duration of the job stressors, as well.

b. Conduct the replicated study in another geographical area in order to determine which conclusions, if any, generalize to a different and/or larger population.

c. Replace the Job-Related Tension Index with an instrument specifically designed to measure the stresses affecting school administrators, i.e., the Administrative Events Stress Inventory developed by Koff, Laffey, Olson, and Cichon or the Administrative Stress Index developed by Gmelch, Koch, Swent, and Tung.

d. Conduct the replicated study in such a way that there would be greater variation between the low and high expenditure groups. Differences on the job stress and job attitude instruments may be more apparent when the financial status of school districts used in the study is more heterogeneous.

2. Researchers should investigate organizational factors other than school level and per pupil expenditure which could also be related to the principal's job stress and job attitude, such as large vs. small schools, geographic location--urban vs. suburban vs. rural, perceived level of teacher militancy, level of role ambiguity and/or role conflict, and other relevant topics.

3. Researchers should investigate the question of how the superintendent/principal relationship affects the job attitude of the principal.

4. More thorough research needs to be conducted relative to the reasons suburban elementary principals reported significantly lower job attitude scores than suburban secondary principals.

5. More thorough research needs to be conducted to determine reasons for the significantly greater stress frequency scores reported by elementary principals relative to the scores of high school principals.

6. A study should be conducted to determine the effect of frequency of communication between the superintendent and principal on the job security and total job attitude of the principal.

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APPENDIX A

All of us occasionally feel bothered by certain kinds of things in our work. Listed below are fourteen things which sometimes bother people. How frequently do you feel bothered by each of them?

Please answer each item by choosing one of the four alternatives: Never; Sometimes; Rather Often; Nearly all the time.

1. Feeling that you have too little authority to carry out the responsibilities assigned to you

NEVER SOMETIMES RATHER OFTEN NEARLY ALL THE TIME

2. Being unclear on just what the scope and responsibilities of your job are

NEVER SOMETIMES RATHER OFTEN NEARLY ALL THE TIME

3. Not knowing what opportunities for advancement or promotion exist for you

NEVER SOMETIMES RATHER OFTEN NEARLY ALL THE TIME

4. Feeling that you have too heavy a work load, one that you can't possibly finish during an ordinary workday

NEVER SOMETIMES RATHER OFTEN NEARLY ALL THE TIME

5. Thinking that you'll not be able to satisfy the conflicting demands of various people over you

NEVER SOMETIMES RATHER OFTEN NEARLY ALL THE TIME

6. Feeling that you're not fully qualified to handle your job

NEVER SOMETIMES RATHER OFTEN NEARLY ALL THE TIME

7. Not knowing what your supervisor thinks of you, how he evaluates your performance

NEVER SOMETIMES RATHER OFTEN NEARLY ALL THE TIME

8. The fact that you can't get information needed to carry out your job

NEVER SOMETIMES RATHER OFTEN NEARLY ALL THE TIME

9. Having to decide things that affect the lives of individuals, people that you know

NEVER SOMETIMES RATHER OFTEN NEARLY ALL THE TIME

10. Feeling that you may not be liked and accepted by the people you work with

NEVER SOMETIMES RATHER OFTEN NEARLY ALL THE TIME

11. Feeling unable to influence your immediate supervisor's decisions and actions that affect you
NEVER SOMETIMES RATHER OFTEN NEARLY ALL THE TIME
12. Feeling that your progress on the job is not what it should be or could be
NEVER SOMETIMES RATHER OFTEN NEARLY ALL THE TIME
13. Thinking that someone else may get the job above you, the one you are directly in line for
NEVER SOMETIMES RATHER OFTEN NEARLY ALL THE TIME
14. Feeling that you have too much responsibility and authority delegated to you by your superiors
NEVER SOMETIMES RATHER OFTEN NEARLY ALL THE TIME

APPENDIX B

ATTITUDE QUESTIONNAIRE

297

Directions: Check (✓) one column for each statement to indicate whether you agree or disagree with it. If you cannot decide, mark the last column.

	AGREE	DISAGREE	CANNOT DECIDE
1. The hours of work necessary to perform my job are not excessive.			
2. I understand how my job relates to other jobs in my school and district.			
3. Working conditions in this district are better than in other districts.			
4. The pay here is lower than in other school systems in this area.			
5. The monies needed to run this school effectively are available.			
6. I understand what benefits are provided for principals. (e.g., health insurance, life insurance, paid vacation time, etc.)			
7. The people I work with help each other when someone has problems, or gets in a tight spot.			
8. My superintendent is too interested in his own success to care about my needs.			
9. My superintendent is always breathing down my neck; he watches me too closely.			
10. My superintendent gives me credit and praise for work well done.			
11. I could really use some assistance with my administrative and supervisory duties (e.g., assistant principal(s), department chairmen, team leaders, etc.)			
12. If I have a complaint to make, I feel free to talk to the assistant superintendent(s) or superintendent.			

ATTITUDE QUESTIONNAIRE---PAGE 2

	AGREE	DISAGREE	CANNOT DECIDE
13. My superintendent sees that principals are properly trained for their jobs.			
14. My superintendent sees that I have the equipment and supplies I need to do my job.			
15. The Board of Education and the superintendent are really trying to improve the district.			
16. There is cooperation between my school and other schools in the district.			
17. Teachers in my school look to me as an instructional leader.			
18. The superintendent and Board of Education encourage principals to make suggestions for improvement.			
19. I am often bothered by sudden speed-ups or unexpected slack periods in my work.			
20. Qualified district employees are usually overlooked when filling job openings for higher positions.			
21. Compared with other schools, my school gets very little attention from the superintendent and the board of education.			
22. Sometimes I feel that my job counts for very little in this district.			
23. The longer I work for this school system the more I feel I belong.			
24. I have a great deal of interest in this school district and its future.			
25. I have little opportunity to use my abilities and skills in this district.			

	AGREE	DISAGREE	CANNOT DECIDE
26. There are plenty of good job opportunities in this school system for those who want to get ahead.			
27. I often feel worn out and tired on my job.			
28. The superintendent and board of education expect too much work from principals in this district.			
29. The district should provide more opportunities for employees to know each other.			
30. For my kind of job, working conditions are acceptable to me.			
31. I'm paid appropriately compared with other employees in the district.			
32. Compared with other districts, this district's benefits are good.			
33. A few people I work with think they run the school.			
34. The people I work with get along well together.			
35. My superintendent has always been fair in his dealings with me.			
36. My superintendent gets employees to work together as a team.			
37. I have confidence in the fairness and honesty of the superintendent and the board of education.			
38. The superintendent and the board of education here are really interested in the welfare of district employees.			
39. Most of my superiors are friendly towards me.			
40. I work in a friendly environment.			

	AGREE	DISAGREE	CANNOT DECIDE
41. My superintendent lets me know what is expected of me.			
42. I don't receive enough information from the superintendent and board of education.			
43. I know how my job fits in with others in this district.			
44. This school system does a poor job of keeping me posted on information I want to know about the district.			
45. I think informality is carried too far in this school district.			
46. Principals can get fired from this district without much cause.			
47. I can be sure of my job as long as I do good work.			
48. I have plenty of freedom on the job to use my own judgment.			
49. My superintendent allows me reasonable leeway in making mistakes.			
50. I really feel part of this school district.			
51. The people who get promotions in this district usually deserve them.			
52. I can learn a great deal on my present job.			
53. My job is often dull and monotonous.			
54. There is too much pressure on me in my job.			
55. I am required to spend too much time on the job.			
56. I have the right equipment to do my work.			

	AGREE	DISAGREE	CANNOT DECIDE
57. My pay is enough to live on comfortably.			
58. I'm satisfied with the way employee benefits are handled here.			
59. I wish I had more opportunity to socialize with my associates.			
60. The people I work with are very friendly.			
61. My superintendent welcomes my ideas even when they differ from his own.			
62. My superintendent ought to be friendlier toward building principals.			
63. My superintendent keeps his promises.			
64. I am kept well informed about important community events.			
65. The superintendent and the board of education ignore my suggestions and complaints.			
66. My superintendent is not qualified for his job.			
67. I feel accepted by the people with whom I work.			
68. I have ample opportunity to see the end results of my work.			
69. My superintendent has enough authority and backing to perform his job well.			
70. I do not get enough instruction about how to do a job.			
71. I can say what I think around here.			
72. I know where I stand with my superintendent.			
73. When terminations are necessary, they are handled fairly.			

	AGREE	DISAGREE	CANNOT DECIDE
74. I am very much underpaid for the work I do.			
75. I'm really doing something worthwhile in my job.			
76. I'm proud to work for this school district.			
77. The superintendent gives building principals too much freedom to decide things on their own.			
78. I received fair treatment in my last evaluation.			
79. During the past six months I have seriously considered getting a job elsewhere.			
80. This district's problem-solving procedure is adequate for handling our problems and complaints.			
81. I would recommend employment in this school system to my friends.			
82. My superintendent did a good job in discussing my last evaluation with me.			
83. My pay is the most important source of satisfaction from my job.			
84. Favoritism is a problem in my area.			
85. I have very few complaints about our staff's lunch facilities.			
86. Most people I know in this community have a good opinion of this school district.			
87. Principals are sufficiently involved in the hiring process for new staff members.			
88. I can usually contact my superintendent when I need him.			

	AGREE	DISAGREE	CANNOT DECIDE
89. Most school district employees are placed in jobs that make good use of their abilities.			
90. I receive adequate training for my needs.			
91. I've gone as far as I can in this district.			
92. My job seems to be leading to the kind of future I want.			
93. There is too much personal friction and competition among principals.			
94. The amount of effort I put into my job is appreciated in this school district.			
95. This district encourages and supports professional growth activities for principals (e.g., attendance at conventions, partial or full reimbursement for course work, etc.)			

APPENDIX C

INTERVIEW QUESTIONS

Sources of Satisfaction in Job

1. What do you look for in a job? What makes a job a good one for you?
2. What are some of the things that would make a job bad for you?
3. How do you feel about your present job in these respects? How does it compare with other jobs you know about?
4. What aspects of your job do you find most satisfying?
5. What do you find least satisfying in your job?
6. If you could redesign your job so it would be most satisfying for you, what would you like to have changed about it?
7. What would have to be done to bring about that change?
8. What are the possibilities that these things could be done?
9. Have there been any attempts to make these changes in the past?
10. Is anything being done now along these lines?
11. What have you thought about doing to make your job better for you?
12. All things considered, how satisfied are you with the way things are on your job?

Please answer the following questions yes, no or cannot decide.

13. "I'm really doing something worthwhile in my job."
(correlates with #75 on instrument - relates to achievement)
14. "The amount of effort I put into my job is appreciated in this district." (correlates with #94 on instrument - relates to recognition)
15. "The monies needed to run this school effectively are available." (correlates with #5 on instrument - relates to physical)

16. "I'm paid appropriately compared with other employees in the district." (correlates with #31 on instrument - relates to economic)

Experienced Stress and Coping Techniques

1. How do you feel on this subject? (stress and pressure)
2. Do you feel that your job imposes some stress and pressure beyond that which most people experience?
3. What are some of the conditions or situations you have to deal with that you think are particularly stressful or pressure-inducing?
4. As you see it, what leads to your feelings of stress?
5. Could you tell me about the last time you were in a stressful situation here on your job?
6. How did you feel about this when it came up?
7. How did it work out? Did the problem finally get solved to your satisfaction?
8. Have there been any instances in the last year or so when the pressure was so great that you felt you could not handle the situation?
9. What happened?

Please indicate to what extent you feel bothered by each of these: Never Sometimes Rather Often Nearly All The Time

10. "Feeling that you have too heavy a work load, one that you can't possibly finish during an ordinary workday." (corresponds to #4 on Tension Index - physical)
11. "Having to decide things that affect the lives of individuals, people that you know." (corresponds to #9 on Tension Index - responsibility)

APPENDIX D

*Lincolnwood School District Number 74**6950 East Prairie**Lincolnwood, Illinois 60645**ORchard 5-8234*

February 7, 1984

I'm pleased to include this note with the material enclosed from George Steffen.

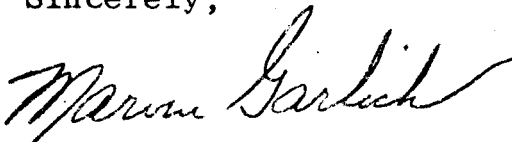
George Steffen has been a member of our faculty for thirteen years. During that time, he completed a master's degree at Loyola University and he is now engaged in writing a dissertation for his doctorate at the same school.

George's research relates to a topic which is much in the news these days - stress and morale. While most studies and articles have been on teacher burn out, George is seeking data concerning stress on suburban principals - both elementary and secondary.

I've read his research design and feel that the study will be revealing and helpful in the field of school administration. I urge that you help George secure his information by completing the requested information.

Thank you for your interest and cooperation.

Sincerely,



Marvin Garlich
Superintendent

MG/mvh

APPENDIX E

February 23, 1984

Dear

I NEED YOUR HELP!

I am a graduate student at Loyola University of Chicago working on my doctoral dissertation. My director is Dr. Robert Monks. The purpose of my study is to determine if relationships exist between sources of organizational stress of elementary and secondary suburban principals and the motivation and hygiene needs of these principals.

All high school principals in suburban Cook County are being asked to participate as well as a randomly selected sample of elementary principals. You will find enclosed two questionnaires-- the Job-Related Tension Index and the Attitude Questionnaire. Please fill out both and return them to me in the enclosed self-addressed, stamped envelope by Friday, March 23, 1984. A summary of the results of the study will be sent to all respondents who so indicate at the end of the Job-Related Tension Index.

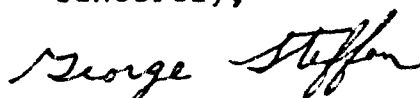
A small number of randomly selected respondents to the questionnaire will be asked to further assist the researcher in a follow-up interview.

I would like to state here that the confidentiality of your responses is assured, and your anonymity as an individual is protected. You will not, under any circumstances, be individually identified. The anonymity of this research is being stressed both to follow ethical procedures and to relieve you of any pressure you might feel in providing honest answers to the questions. You need not write your name on either questionnaire. Number coding is for the sole purpose of facilitating data gathering and analysis.

Your responses are most important to the study since I am trying to get as near as possible to a "perfect sample". This would mean getting a reply from everyone who received the questionnaires.

Thank you in advance for your consideration and support. I am most grateful for your co-operation.

Sincerely,



George Steffen

APPROVAL SHEET

The dissertation submitted by George F. Steffen has been read and approved by the following committee:

Dr. Robert L. Monks, Director
Associate Professor
Administration and Supervision
School of Education, Loyola

Dr. Max A. Bailey
Associate Professor
Administration and Supervision
School of Education, Loyola

Dr. Frederick C. Lunenburg
Assistant Professor
Administration and Supervision
School of Education, Loyola

The final copies have been examined by the director of the dissertation and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the dissertation is now given final approval by the Committee with reference to content and form.

The dissertation is therefore accepted in partial fulfillment of the requirements for the degree of Doctor of Education.

12-5-84

Date

Dr. Robert L. Monks

Director's Signature