PERCEPTION OF WORK-RELATED STRESS

AMONG PRINCIPALS AS RELATED TO

BELIEF SYSTEMS AND PERCEPTION

OF BUREAUCRATIZATION OF

SCHOOL DISTRICT

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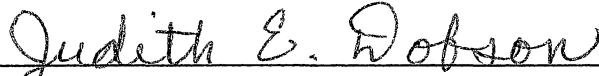DOCTOR OF EDUCATION
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C O P Y R I G H T

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CHAPTER I

INTRODUCTION

One of the most insidious problems encountered by high school principals and assistant principals in their jobs is work-related stress. Having a gradual and cumulative effect, work-related stress awaits a chance to entrap even the most indomitable of school administrators (Duke, 1988).

The onus of work-related stress is that it diminishes the capacity of individuals to function in a productive manner (Selye, 1975). Epidemiological evidence on occupation and certain stress-related illnesses such as coronary heart disease, hypertension, elevated serum cholesterol, alimentary disorders, and a variety of mental disturbances demonstrates the potential of work-related stress to impair not only an individual's health, but also his or her occupational performance (Carruthers, 1980).

Work-related stress has enjoyed much attention over the last several years. In the Fall of 1987, over 6,000 ERIC documents relating to stress were located by the present researcher. The organizational settings for these research focuses have been varied, e. g., Barron and Kenny, 1986; Frew and Bruning, 1987; Ivancevich, Matteson, and Preston, 1982; Motowidlo, Packard, and Manning, 1986;

Nicholson and Goh, 1983; Quick, Schkade, and Eaking, 1986;
Ravlin and Meglino, 1987; Rogers and Larson, 1984; Rogers,
Li, and Shanti, 1987; and Tetrick and Larocco, 1987.

Work-related stress among professional school
employees has been investigated in a number of studies.
Research of the phenomenon among educators seems to vary
according to the educator's role in the organization, e. g.,
athletic trainers (Capel, 1986); classroom teachers (Berry,
Noblit, and Hane, 1985; Chissom, Chukabarah, Buttery, and
Henson, 1986; and Dedtrick, Hawkes, and Smith, 1981);
curriculum supervisors (Goens and Kneiejezyk, 1981);
librarians (Olsgaard and Summers, 1986); school administra-
tors (Bacharach and Mitchell, 1983; Duane, Bridgeland, and
Stern, 1986; Gmelch, Koch, Swent, and Tung, 1982; Gmelch
and Swent, 1981, 1982; Koff, Laffey, Olson, and Cichon,
1981; Lemley, 1987; and Wiggins, 1983); school psycholo-
gists (Pierson-Hubeney and Archambault, 1987); university
professors (Diener, 1984; Eberhardt and Eberhardt, 1984;
and Larkin and Clagett, 1981).

In spite of the apparent abundance of research
presented in the literature, some aspects of work-related
stress have not been adequately explored. Consequently,
the present study was undertaken to examine aspects of
work-related stress that previously have received little,
if any, attention in the research literature.

Statement of the Problem

The purpose of this investigation was to determine
whether perceived work-related stress among high school
principals and assistant principals is related to the
administrators' belief systems and the bureaucratic struc-
ture of the administrators' school district. Also, of
special interest in the present study was the extent to
which belief systems may moderate the impact of various
dimensions of the bureaucratic structure on perceived
work-related stress.

Very little has been published on perceived stress
nd its relationship to belief systems among high school
principals and assistant principals working with a
school district's bureaucracy. A number of questions
remain unanswered as to these perceptions of high school
administrators regarding work-related stress. An October,
1987, search of the BRS ERIC Database produced only five
documents relating to the role of principals and stress;
10 documents relating to bureaucracy and stress; eight
documents relating to management position and bureaucracy.
However, 81 documents concerning stress and beliefs were
located but, among these, none concerned stress as it
pertains to high school principals and assistant principals
and their belief systems.

High school administrators must work within an
increasingly complex milieu. Much of this complexity may

be attributed to the bureaucratization of the school district. School districts are generating increased numbers of policies to address how a school will be organized, as well as, the content of the curriculum that is offered in schools throughout the district. Policies are generated in order to comply with local, state, and federal mandates regarding educational requirements, and are often established outside the individual school district (Wise, 1979).

The burden of ensuring that policies are carried out is the responsibility of several individuals within the school district. However, such responsibility ultimately rests with building administrators since they are, aside from the instructional staff, the individuals most immediate to the organization's clientele; that is, the students, parents, and patrons of the school. It is logical to assert, then, that the more complex the organization becomes, the greater the demands become on the individuals who work in them. Moreover, organizational demands have been identified as factors that contribute to work-related stress (Gmelch, Koch, Swent, and Tung, 1982).

Belief systems influence the perceptions of individuals (Rokeach, 1960). That is, belief systems act as a type of screen through which an individual receives and interprets information concerning the physical and social environment (Holsti, 1962). It is reasonable to assume, then, that high school administrators receive and interpret information

concerning demands made by their school district's bureau-
cracy by means of their individual belief systems. Further,
it follows that the perceptions of organizational demands
will vary from individual-to-individual according to the
individual's unique belief system. Some writers suggest
that these perceived demands may act as stressors (Swent,
1978), and that the resulting performance and health of the
individual may be affected (Mannera and Wright, 1981).

This study has both theoretical and practical implica-
tions. It is one of the few studies in an educational
organization which incorporates person-environment fit
theory (French, Rodgers, and Cobb, 1974). Further, because
person-environment fit theory is heuristic in nature, many
variables have not yet been delineated. This study provides
further refinement of the theory by including belief systems
as one of the major variables.

Results of this study should be of interest to large,
complex school districts because work-related stress influ-
ences job performance negatively, organizational changes
may be implemented for abatement of many sources of stress
that affect its members. Organizational structure may need
to be adjusted or personnel shifted from one building to
another to promote a greater person-environment fit. The
patterns emerging from this study should establish guide-
lines for achieving person-environment congruence.

Elimination of all work-related stress probably is
not possible or advisable. However, a reduction of the
prevalence of work-related stress may enhance an administra-
tor's occupational performance, as well as, enhance the
integrity of the administrator's physical and psychological
well-being.

Background of the Problem

Possible work-related stressors are many, but several
seem to be associated with organizational structure and the
type of belief system characterizing the individual member
of an organization. Relevant to large, complex school
districts is Richard Hall's (1963) empirical assessment of
Max Weber's (1864-1920) concept of bureaucracy; that is,
the degree of bureaucratization characterizing an organiza-
tion. Also, relevant to individuals who are members of
organizations is Milton Rokeach's (1960) construct of
ideological dogmatism; that is, the type of belief system
characterizing an individual. Relevant to both the
individual member of an organization and the organization
itself, is the work of French, Rodgers, and Cobb (1974)
regarding an individual's suitability for an organization
and an organization's suitability for a particular
individual; that is, the person-environment fit theory.

Because person-environment fit theory served as the
theoretical underpinning for the study, it is presented
first. This discussion is followed by some background

information pertaining to the bureaucratic structure of
organizations and bureaucratization, and then the belief
systems of individuals

Person-Environment Fit Theory

In Adjustment as Person-Environment Fit, researchers
French, Rodgers, and Cobb (1974) discuss the concept of
". . . adjustment as the goodness of fit between the
characteristics of the person and the properties of his
environment," (p. 316). According to these writers, two
meanings of environment and person must be conceptualized.
Specifically, discernment must be made between the person
and the surrounding environment; and, between objects and
events as they exist independently and objects and events
as they are perceived by an individual.

The concept of "fit" (F) of the person (P) to his
environment (E) is succinctly presented in the researchers'
paradigm. Notation used to depict this relationship is:

$$F_O = E_O - P_O = \text{Objective person-environment fit. . .}$$
[and]

$$F_S = E_S - P_S = \text{Subjective P-E fit, (pp. 317-318).}$$

Hence, utilizing these constructs, French, et al.,
(1974), discuss stress in terms of ". . . two kinds of
demands and two kinds of corresponding supplies to meet
those demands," (p. 317). The first involves demands of
the person, such as motives and values, for certain

supplies from the environment, such as achievement and
food, and the environment's ability to meet those demands.
The second involves demands from the environment, such as
role requirements and requests from others, for certain
supplies from the person, such as ability and intellect.
Since environmental demands can be occupational, work-
related stress arises when such demands exceed the
abilities of an individual to meet them.

Because ". . . the large, bureaucratic organization,
like other settings, exerts its own set of unique forces on
the individual" (French and Caplan, 1972, p. 30); and
because through the application of these forces, the
organization exacts costs from its employees in the form of
job-related pathologies, person-environment fit theory is
significantly related to the present study.

Bureaucratic Structure
and Bureaucratization

Bureaucracy, according to Gerth and Mills (1958), was
conceived by the German sociologist Max Weber, as the most
rational and efficient means of structuring organizations.
Silver asserted that, "He specified seven features of
bureaucracies that, both individually and in interaction,
maximize organizational rationality and efficiency," (1983,
p. 75). Although Weber distilled his features of bureau-
cracy from one type of authority, legal authority, they
are, nevertheless, ideal in ". . . the sense to mean pure,

but not necessarily desirable," (Silver, 1983, p. 79). In addition, Silver states

> Weber's theory of bureaucracy is surely among the most thoroughly studied of all behavioral science frameworks both in educational research and in organization inquiry in general, (p. 81).

Richard Hall (1963), an American sociologist studied bureaucracy, but not from the perspective of it being either present or absent in an organization. Rather, Hall investigated bureaucracy in terms of the degree that various dimensions of bureaucracy were prevalent in an organization.

By examination of the bases of the bureaucratic model, Hall suggested that the bureaucratic concept is more empirically valid when each element of the bureaucracy is viewed as a series of dimensions, with each dimension in the form of a continuum. Thus, he was able to demonstrate the bureaucratization of organizations.

Hall accomplished this task by selecting six characteristics of bureaucracies to measure in order to determine the degree of bureaucratization perceived by the members of an organization. From a subjective standpoint, individuals described their organizational environment in terms of its degree of bureaucratization. The six characteristics of Weber's classical features of bureaucracy which Hall selected were: (1) hierarchy of authority, (2) division of labor, (3) system of rules, (4) system of procedures, (5) impersonality and, (6) technical competence.

Thus, the question of whether an organization's structure is or is not bureaucratic may not provide an answer that gives an accurate view of the organization. The more appropriate question to ask may be to what degree is an organization's structure bureaucratic. Such information would be valuable in the event an organization wanted to undergo change.

Belief Systems

As stated elsewhere, Rokeach (1960) investigated the nature of belief systems by analyzing ideological dogmatism. Throughout his observations, he noted that a number of individuals were predictably dogmatic or closed in the manner in which they thought and in the beliefs they held. Subsequently, he conceived of open and closed belief systems as characteristic extremes of ". . .all the beliefs, sets, expectancies, or hypotheses, conscious and unconscious, held as true at a given time," (p. 33), by an individual.

Much of his work examined the unique format each individual has for receiving and interpreting information from the outside. He found that an individual seems to systematically organize new or different information in congruence with what the individual already knew about, e. g., the physical world, ideas, other individuals, and especially authority.

More importantly, however, Rokeach was able to establish that a large part of an individual's behavior

is closely related to the type of belief system character-
izing the individual. That is, individuals who were closed
in their mode of thought and belief tended to act on infor-
mation from an outside source in the manner the individual
believed the outside source expected. Thus, the individual
probably did not exhibit much flexibility in certain situa-
tions because the outcome of the situation was perceived by
the individual as tied to rewards or punishments.

Definition of Terms

For the purpose of this investigation, the following
terms are operationally defined:

Assistant/Vice Principal: A certified person,
licensed by a state, and employed by a school district to
act as an assistant to the primary administrator of a
school.

Belief Systems: "The total of all beliefs, sets,
expectancies, or hypotheses, conscious and unconscious,
that a personal at a given time accepts as true of the world
in which he lives," (Rokeach, 1960, p. 33), as measured by
the "Dogmatism Scale, Form E," (Rokeach, 1960) with score
range of 40 to 280. In addition, "The extent to which
a person cannot receive, evaluate, and act on relevant
information received from the outside on its own intrinsic
merits, unencumbered by irrelevant factors in the situation
arising from within the person or from the outside,"
(Rokeach, 1960, p. 57), moves the individual toward the

closed end of the belief systems continuum. On the other

hand, an individual with "A system in which information is

evaluated and acted upon independently on its own merits,

in accord with the inner structural requirements of the

situation. . . the more the person should be governed in his

actions by internal self-actualizing forces and less by

irrational inner forces. He has more strength to resist

external reinforcements, rewards, or punishments in terms

of the way information will be evaluated and acted upon,"

(Rokeach, 1960, p. 58); thus, this individual would move

toward the open end of the belief systems continuum.

Bureaucracy: Conceived of as an ideal type which

rarely exists, bureaucracy refers to principles of organi-

zation that find varying degrees of expression in a wide

variety of organizations. The classical Weberian-

bureaucracy is characterized by (1) fixed and official

jurisdictional areas for members, (2) office hierarchy and

levels of graded authority, (3) written documents --

central files, (4) a set of special skills called office

management, (5) official activities which demand the full

time of personnel and, (6) systematic and general rules

which define procedure and which are followed," (Gerth and

Mills, 1958, pp. 196-198).

Bureaucratic Structure: An organization's structure

that is designed according to the classical principles of

bureaucracy.

Bureaucratization: "The extent to which the charac-
teristics of bureaucracy are prevalent in an organization,"
(Silver, 1983, p. 83), as measured by Richard Hall's (1963)
"Organizational Inventory" with a score range of 62 to 248,
and composed of the following factors:

---- Hierarchy of Authority: A dimension of bureau-
cratization that involves levels of graded authority.

---- Division of Labor: A dimension of bureacratiza-
tion that involves fixed and official jurisdictional areas
for each member of an organization.

---- Impersonality: A dimension of bureaucratization
that involves a set of rules and procedures that must be
followed without necessarily being responsive to differ-
ences among individual employees and/or clientele of
the organization.

---- System of Procedures: A dimension of bureau-
cratization that requires organization members to follow
established rules by which the organization has determined
the work is to be completed.

---- System of Rules: A dimension of bureaucratiza-
tion that concerns the directions and guidelines that
govern not only how work is to be completed and by whom,
but also how organizational members will interact with one
another in carrying out their duties and responsibilities.

---- Technical Competency: A dimension of bureau-
cratization that involves the education, training, and

expertise concerning a specific area of work or type of task to be performed.

High School: A school consisting of the last two, three, or four years of a student's education in public schools; it may be composed of grades nine through 12 or grades 10 through 12 and in some instances, grades 11 and 12.

Interaction: "An interaction refers to the case where the nature of the relationship between one of the independent variables and the dependent variables changes as a function of the other independent variable," (Jaccard, 1983, p. 345).

Principal: A certified person, licensed by a state, and employed by a school district to act as the primary administrator of a school.

Stress: Although defined in several ways, for this study stress is the interaction between environmental forces and events which appear threatening to the person and the person's reaction to the threat (Kahn, Wolfe, Quinn, Snoek, and Rosenthal, 1964); that is, "Stress is a cognitive state in which an individual confronts a situation characterized by high levels of uncertainty, associated with obtaining important outcomes and, in which existence of such uncertanties are long in duration" (Beehr and Bhagat, 1985, p. 6).

Stressors: For this study, stressors are those ". . . forces capable of producing stress. They are to

a large degree, individually specific (i. e., they vary
among individuals)," (Foster, 1986, p. 9).

Work-Related Stress: That part of an individual's
total-life stress that may be attributable to the
individual's work environment as measured by the "Administra-
tive Stress Index" (Swent, 1978) with scores that range
from 35 to 140, and composed of the following factors:

---- Administrative Constraints: A factor of work-
related stress that involves confinement or restrictions
intrinsic to the position, (Swent, 1978, pp. 4-6).

---- Administrative Responsibility: A factor of work-
related stress that involves tasks which are associated
with the position, such as ". . . planning, organizaing,
staffing, directing, coordinating, reporting and budgeting"
(Swent, 1978, pp. 6-7).

----Interpersonal Relations: A factor of work-related
stress that concerns interaction with various people from
both inside and outside of the organization (Swent, 1978,
pp. 9-11).

----Intrapersonal Conflict: A factor of work-related
stress that involves ". . . sources of stress resulting
from the conflicting demands between job tasks and
individual belifs or goals," (Swent, 1978, p. 11).

---- Role Expectations: A factor of work-related
stress that concerns ". . . source(s) of stress for the
school administrator result(ing) from the beliefs and

attitudes about the administrative role in an organization"
(Swent, 1978, p. 13).

Limitations of the Study

The following limitations should be noted regarding
the present study:

1. This study was limited to high school principals
and assistant principals working in large, primarily urban
school districts with enrollments ranging from 35,296
students to over 930,420 students.

2. This study was limited to an investigation of the
following variables and factors: individual belief systems,
bureaucratic structure characterizing a school district and
the factors of bureaucratization, and administrators'
perceptions of work-related stress and the factors of work-
related stress.

3. This study was limited to the validity and
reliability of the instruments used in the investigation.

Summary

Researchers have found that a large percentage of the
total-life stress experienced by school administrators may
be attributed to their work (Steckman, 1982). In addition,
studies of the work itself have shown that administrators
characterize it to be usually or always stressful (Schaffer,
1980; Swent, 1978; and, Warner, 1981).

This chapter briefly introduced the problem of work-related stress among high school administrators. Also, the chapter discussed the problem that was investigated in the present study, its theoretical and practical implications and, provided operational definitions used in the study. In addition, some background information regarding person-environment fit theory, bureaucratic structure of organizations and the concept of bureaucratization, and, belief systems was given to provide an explanation of their relationship to the study of work-related stress among high school administrators employed in large, complex school districts. Limitations of the study also were cited in the chapter.

CHAPTER II

REVIEW OF SELECTED LITERATURE

Introduction

Stress in general and work-related stress in particular has been a popular topic of interest among researchers since the Vienna-born physician Hans Selye extensively examined the phenomenon in his work, The Stress of Life (1956). Although Selye first studied stress from a physiological perspective, he and others subsequently expanded their research efforts to include social, psychological, and environmental factors.

Similar to stress, the bureaucratic structure of organizations also has been extensively studied since Max Weber first described the characteristics of a bureaucracy in Wirtschaft and Gesellschaft, written sometime before 1914. Weber's classical characteristics, however, may exist in contemporary organizations to varying degrees.

Studies concerning dogmatic ideology or individual belief systems do not seem as prevalent in the literature as studies pertaining to work-related stress or the bureaucratic structure of organizations. Nevertheless, some studies have been conducted and subsequently have

provided insight into the cognitive organizations
of individuals.

Consequently, since a sizable body of literature has
been accrued as a result of the number of analyses
conducted on stress, organizational structure, and, to a
lesser degree on belief systems; a review of this amount
of liteterature was limited to analyses most germane to the
major variables of the present research. These variables
were: secondary school principals' and assistant princi-
pals' perceptions of the bureaucratization of their school
district, their belief systems, and their perceptions of
work-related stress.

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Bureaucratic Structure

of Organizations:

Bureaucratization

</div>

Structure is the most distinguishing feature of a
formal organization. It is an indispensible condition of
the organization since it prescribes what activities will
occur, in what order, as well as, who will perform them.

The impetus for structure is the coordination of
the work of the organization and, most especially, the
coordination of the work force of the organization. James
and Jones (1976) write that

> The enduring characteristics of an organi-
> zation [are] reflected by the distribution of
> units and positions within the organization and
> their systematic relationships to each other,
> (p. 76).

Coordination of duties and positions ultimately determines the organization's hierarchy of command and/or authority. Tannenbaum, Kavcic, Rosner, Vienello, and Wieser (1974 write, "Hierarchy is designed to solve a universal problem of organizations, the need to coordinate the efforts of many persons performin a variety of tasks," (p. xix). However, since people see themselves differently in the hierarchy, these perceptions, at times, may act as stressors. Brass (1984) states

> The work that orgnanizations divide among
> subunits is further divided among individuals,
> and some individuals will inevitably be more
> powerful than others, (p. 519).

Inasmuch as structure is the sine que non for coordinating work and workers in an organization, it is reasonable that employees' perceptions of the organization's structure will vary. That is, some workers may find the organization's structure to be supportive while others may find it to be nonsupportive.

Bureaucracy is one method of structuring formal organizations. Although conceived by Max Weber, the German sociologist, as the most efficient and rational means of structuring an organization, bureaucracy does have its inherent weaknesses. Nevertheless, Weber's classic principles remain as guidelines which organizations seemingly prefer to follow when developing their formal structures.

The classical Weberian-bureaucracy, it may be recalled, is characterized by fixed and official jurisdictional areas for members, an office hierarchy and levels of graded authority, written documents or central files, a set of special skills called office management, official activities which demand the full time of personnel, and systematic and general rules which define procedures and which are followed, (Gerth and Mills, 1958).

Organizations, however, do not seem to utilize all of Weber's principles all of the time. That is, the prevalence of bureaucrataic characteristics may vary from organization-to-organization. Moreover, the intensity of bureaucratic principles that are present may vary by degree, once again depending on the organization. Hall (1963 writes

> Upon closer examination, the character-
> istics or dimensions that are typically
> ascribed to bureaucracy appear to be variables
> that can be systematically measured to demon-
> strate the degree to which organizations are
> or are not bureaucratic, (p. 32).

The bureaucratization of an organization may be conceptualized, then, as the extent to which Weber's principles of a bureaucracy are prevalent in an organization.

The organizational structure of a large school district may reflect many of the attributes of a bureaucracy. Feinberg and Soltis (1985) write

> Industrialized nations do not have
> schools like Factory Prep, but clearly
> their schools do reflect some aspects of
> an industrialized society --- such as mass

production, bureaucratic organization, and
impersonalized, hierarchical decision making,
(p. 6).

Secondary school principals, as members of the school
district's organization, each perceive and are impacted by
the school district's structure differently. That is,
some principals may perceive the district's organizational
structure as conducive to facilitating their work; others
may find it to impede their work; and yet, others may
perceive only certain structural elements as impediments.

Since secondary school principals may perceive their
district's organizational structure differently, it is
reasonable to assert that some may find their district's
structure to be a type of stressor in their work environ-
ment. Consequently, one purpose of the present study was
to determine the relationship, if any, between the degree
of bureaucratization perceived by administrators charac-
terizing their school district's structure and perceived
work-related stress as reported by the administrator.

A closer, albeit brief, examination of each Weberian-
bureaucratic principle may serve to illuminate the
potential each principle has to be perceived as a type of
stressor. Hence, each principle is discussed as it may
impact a school administrator working in a large district.

Hierarchy of Authority

According to the World Book Dictionary (1966), hier-
archy is the organization of persons arranged one above

the other according to amount and kind of authority.

Hierarchy of authority is a principle of bureaucracy. Its

primary function is to govern or regulate the interactions

of organizational members. The chain-of-command, a feature

of hierarchy of authority, is designed to govern who

possesses what types of information. Since possession and

control of information is a basis of power in an organiza-

tion, each individual's level of graded authority is

concomitant with how much power he or she may have in

the organization.

It may be noted in Figure 1 that principals often are

located at the middle-management level in organizations.

Corporate Examples of Job Titles	School District Examples of Job Titles
Board of Trustees	Board of Education
Chairman of the Board	President of the Board
Chief Executive Officer	Superintendent
Vice Presidents	Assistant Superintendents
Directors	Directors
Managers	Principals
Assistant Managers	Assistant Principals
Supervisors	Supervisors
Forement	Department Chairs
Laborers	Teachers

Figure 1. Comparison of Corporate and School
District Job Titles

Since building administrators are middle managers, they
must cary out their duties and responsibilities by effec-
tively operating both up and down the school district's
structural hierarchy. Meeting this requirement can be
a source of work-related stress. Gmelch and Swent (1982)
found significant correlations between administrative
positions in a school district and certain work-related
events that act as stressors.

Division of Labor

Division of labor simply requires that the work of
the organization must be divided among the organization's
members. A result of dividing the work among members is
that members often do not have the opportunity to deal
with, or often conceptualize, the completed project. On
the other hand, efficiency is served by dividing the work
among many to achieve a streamlining-effect on production.

Secondary school principals, since they are part of
the district's organizational structure that deals with
building administration, often describe their work as
open-ended. Mintzberg (1973) suggests that the fall-out
effect of the bureaucratic principle of division of labor
among school principals results in the building administra-
tors' characterizing their work as having much variety,
being brief, and being highly fragmented.

Schools within large, complex school districts are
not self-sufficient entities. That is, in order for a

principal to manage his or her school effectively, the administrator must rely on many other people employed in the same district. For example, curriculum services, custodial services, maintenance services, food services, media center services, and many other types of services dive the labor of the school district. In order to utilize any or all of these services, a building administrator must go through many sub-bureaucracies. Working with many, many divisions that may or may not be cooperative is a genuine source of work-related stress to many school principals and assistant principals.

As a result of having to rely on so many others, principals often experience a sense of lack of control over their time in performing necessary tasks. The sense of lack of control over their time creates yet another possible source of work-related stress among high school principals and assistant principals.

System of Rules

Each organization has a set of rules which organizational members must acknowledge and follow in order to maintain membership in the organization. Within the context of a typpical school district, there are rules governing all activities in which the school district is engaged.

School district rules are more commonly referred to as policies and their purpose is to provide guidelines for

personnel to follow as they carry out the mission of the district. Policies are established "laws" of the school district and they are inviolate. They are published, held up to public scrutiny, and revised as needed. The burgeoning number of policies generated by state and local education authorities create a highly rule-oriented organizational environment.

As stated in Chapter I, a major responsibility of building principals is to ensure district policies are upheld. The daily act of enforcing school district policies often creates a very demanding work environment. Continually coping with not only the numbers of policies, but also their content leads principals into many conflict-laden encounters. Gmelch and Swenty (1982) write that "Nearly all school administrators agreed the number one source of stress was compliance with state, federal and organizational rules and policies," (p. 23).

System of Procedures

A system of procedures refers to the manner in which work is to be performed. That is, aspects of the work methodology are prescribed and, subsequently, may leave little room for creative problem-solving.

As mentioned earlier, school districts have policies that govern what occurs within the organization. Policies have concomitant procedures dictating how they are to be carried out and/or implemented. School principals are all

too familiar with the manner in which some tasks must be accomplished. Yet, some principals may perceive more feasible paths to accomplish tasks, but are constrained by policy from deviating too far from the district's operational procedures.

The potential constraining influence of procedures may be illustrated by quoting the superintendent of a large, complex school district. This particular superintendent unabashedly asserted that "The schools were told what was to be accomplished and generally how it was to be done," (Steller, 1989, p. 25). An unfortunate aspect of attempting to carry out such procedures is that they often do not reconcile themselves with the unique personality and culture of each individual school. Consequently, yet another source of work-related stress may be a system of procedures.

Impersonality

Educational administration is a people-oriented profession. Administering an individual school keeps the principal in constant contact with students, teachers, parents, the community, and others. Such continuous interactions may act as stressors form time-to-time in the work-life of an administrator. Inasmuch as a continuous barrage of such interactions may reduce the meaningfulness of them, an administrator may become highly impersonal in his or her dealings with clientele.

An often-heard complaint in large school districts is the lack of genuine concern for its students. Once again, the continuous interactions with all of the constituencies of a school establishes increased potential for conflict. That is, on the one hand, the principal attempts to operate in a personable, humane manner; on the other hand, the principal is regarded with much impersonality by the central office in terms of across-the-board directives.

The depth of impersonal treatment resulting from interactions with a school district's central office and a building principal are legend. In many large school districts, for example, that which is deemed good for one district school is deemed good for all of the district's facilities. This complete disregard for the individual character of each school ultimately may precipitate types of work-related stress among principals.

Bureaucratic impersonality is the bane of many organizational members. Depending on the ir position in the organizational hierarchy, members occasionally sense that their efforts are not being recognized by their superiors or by their subordinates. For those principals who are very much people-oriented individuals, such an impersonal state may lead to frustration which may create problems with job satisfaction (Koff, Laffey, Olson, and Cichon, 1981).

Technical Competence

Presthus (1962) noted that educational administrators are upwardly-mobile individuals. McCleland, Floor, Davidson and Saron (1980) write that educational administrators are high in need for power. Waldron, Hickey, McPherson, Butensky, Gruss, Overall, Schmader, and Wohlmuth (1980) suggest that pressure to achieve academically through pursuit of higher degrees or more certification tends to produce an increase in Type-A or highly stress-oriented behavior patterns.

The conscientious school administrator continually strives to keep abreast of current trends in curriculum, school finance, athletics, student discipline, negotiations, school improvement, pedagogy, library materials and equipment, laws pertaining to schools and school personnel, as well as numerous other important areas of interest. The conception that an effective administrator is an individual who keeps himself or herself well-informed in so many areas also may act as a type of stressor with which principals and assistant principals must contend.

Section Summary

Weber's classical principles of bureaucracy, even when present in an organization to varying degrees, may act as types of stressors among organizational members. Acting either singularly or in various combinations,

bureaucratic principles are powerful sources of work-related stress (French and Caplan, 1972). Moreover, the degree of stress perceived by organizational members may differ from individual-to-individual and from perceptions of one, or more, bureaucratic principle impinging on the individual's work environment.

The causes of work-related stress are vast. However, of particular significance is the work-related stress perceived to be generated by the organization's structure placing demands upon its members. Hall and Savery (1986) examined a broad range of potential stress-producing events among managers in organizations and write

> Managers are beleaguered by demands not only from their supporters but also from government agencies, from subordinates and union representatives pushing for a greater say in the running of the enterprise, and from community and other interest groups with their many and rising expectations, (p. 160).

The influence of the bureaucratic principles have been cited by researchers as sources of dissatisfaction and, on occasion, sources of work-related stress. Bacharach and Mitchell (1983), have suggested that bureaucratization conflicts with the needs and aspirations of professionals. More importantly, they were able to demonstrate in their research that "The greater the bureaucratization, the greater the dissatisfaction of school district administrators," (p. 103).

On the other hand, it should be noted that some individuals are or become their own source of work-related stress.

That is, individual belief systems, discussed in the

following section, influence the individual's perceptions

of his or her organization.

Belief Systems

Belief systems, in the present research, are what M.

Rokeach (1960) refers to as

> The total of all beliefs, sets, expec-
> tancies, or hypotheses, conscious and
> unconscious, that a person at a given time
> accepts as true of the world in which he
> [she] lives, (p. 33).

Figuratively, then, an individual's belief system serves

as a type of cognitive information-processing template.

Within this context, belief systems are not to be

construed as religious points-of-view by the interested

reader. However, it should be acknowledged that included

in each individual's belief system are elements associated

with spiritual and/or religious convictions. This may be

expecially apparent as such convictions may relate to the

natural world and mankind's position in the natural world.

Individuals process new information according to what

they already know and hold to be true. Thus, new informa-

tion first must be "formatted" by the individual into his

or her belief system structure before the contents of the

new information can be dealt with and/or responded to by

the individual. Such processing of information, according

to Rokeach (1960) is an unique characteristic that is

present in all individuals and exerts its influence in determining their behavior. Moreover, the nature of an individual's belief system determines, to varying degrees, his or her capability of receiving, evaluating, as well as, acting on information from the outside.

The influence of belief systems on the perception of stress has been suggested by a number of researchers, e. g., Frew and Brunig, 1987; Fuller and Izu, 1986; Gmelch and Swent, 1981; Hoy, 1965; Nystrom and Starbuck, 1984; and Rokeach, 1960. In general, these writers suggest that belief systems directly or indirectly impinge on an individual's processing of information and that this influence, in turn, affects to varying degrees the individual's perception of stress.

Therefore, there is reason to suggest, then, that how people view the world and intepret events may be a significant factor in the degree to which stress is perceived and subsequently experienced. Hence, a second purpose of the present research is to determine the relationship between belief system and perceived work-related stress among secondary school administrators.

In addition, belief systems may have a moderating effect on how individuals perceive the organizational structure in which they work. Similarly, belief systems may have a moderating effect on how an individual perceives work-related stress. The present research is

designed to address the impact of organizational structure and belief systems on work-related stress.

French and Caplan (1972), as mentioned previously, asserted that bureaucratic organizations tend to exert an influence on their members. More specifically, they write

> Through the application of these forces, the organization is able to channel the individual's behavior toward certain goals and to direct his interactions toward certain people and away from others, (p. 30).

An organization's structure, among other things, imparts information to its members. Hierarchy, an important type of information, is a bureaucratic principle that determines levels of authority. Associated with authority is the control of information, which subsequently empowers the individual in authority. Fiechtner and Krayer (1986) examined the influence of dogmatism levels to determine whether or not it was an important factor in subjects' reacting to different types of leader-supplied information. These researchers concluded that dogmatism significantly affected the subjects' satisfaction with the group decision while quantity and relevance of leader-supplied information does not have such an effect.

Inasmuch as the influence of belief systems is a pervasive phenomenon, researchers have examined this influence in a variety of ways. A study conducted by Hoy (1965), for example, found that belief systems of

individuals had a significant relationship to the ideologies of how those individuals regarded the control of students. Hoy's findings suggest that individuals who are closed in their mode of thinking tend to be more custodial in their pupil control ideology than individuals who are more open in their belief systems.

In a recent study by Nystrom and Starbuck (1984), it was suggested that "Beliefs instigate behaviors or inhibit them, guide choices of action, and engender people's commitments to collective activities or dampen them," (p. 279). In addition, Gmelch and Swent (1981) concluded that conflicts between one's performance and one's internal beliefs and expectations are manifested in the intrapersonal conflicts experienced by various school district administrators.

Studying the relationship between thinking styles and job stress, Quick, Schkade, and Eakin (1986) found that people with jobs poorly suited to their thinking styles exhibit signs of strain. Since thinking is a cognitive activity, and cognitions may be patterned according to one's belief system, then it is possible to suggest that job performance may be directly or indirectly influenced by how the individual thinks including his or her style of thinking.

In addition, cognitive appraisal was examined by Hodapp, Neuser, and Weyer (1988) using a systematic approach to assess subjective stress variables. These

writers concluded that accumulated aversive conditions lead to job pressure, whereas job dissatisfaction is the result of the absence of rewarding conditions within the work environment. Further, the results of this study clearly support a close association between the individual's manifested belief system, his or her behavior style, and the individual's experience of stress.

In studies that may be considered peripheral to the present research, belief systems continue to directly or indirectly influence how individuals perceive various events. For example, Fuller and Izu (1986) examined factors that shape organizational beliefs among teachers. These writers found that the underlying material structure of the organization contributes to the formation of boundaries within which the organizational members' define their subjective beliefs reagarding the organization. Along a similar path of research, Frew and Brunig (1987) studied the relationship between needs, values and behavior patterns and the stress/strain phenomenon. These researchers found that such indicators as needs, values, and behavior patterns had an additive or interactive effect upon experienced stress.

Walsh, Henderson, and Deighton (1988) examined negotiated belief structure and found that each member of a group may hold a schema regarding the information domain of a particular issue. That is, group members may individually hold a set of structured beliefs concerning

information that may be associated with certain issues.
More importantly, however, according to these researchers,
the aggregation of these schema may be related to
performance levels of the groups that were studied.

According to Ravline and Meglino 1987), values are
related to perception and decision making; that is, these
writers suggest that values are related to cognitive
organizations. And, as pointed out previously, belief
systems "format" the reception of information and subse-
quently influence perception of events and other phenomenon.

Kahn, Wolfe, Quinn, Snoek, and Rosentha (1964), as
presented in Chapter I, defined stress as the interaction
between environmental forces and events which appear
threatening to the individual and the individual's reaction
to the threat. If the individual's interaction with his/her
environment occurs through the processing of information,
then it may be deduced that the individual's belief system
may influence his/her perception, which may, in turn,
engender experienced stress.

Section Summary

As stated by Swent (1978), "Events, either real or
imagined, cause people to make interpretations based on
their values, beliefs and past experience," (p. 11). And,
since an individual's cognitive organization influences
how the individual processes real or imagined events,

it is logical to advocate the idea that an individual's belief system may be a contributing factor to the experience of stress, as well as, contribute to the individual identifying certain types of information and activities as stressors.

Studies focusing on ideological dogmatism do not address the possible moderating effect which belief systems may have on the perception of organizational structure and on the perception of work-related stress among secondary school administrators. Nevertheless, the studies do support the idea that belief systems have an overarching influence on how the individual receives, evaluates, and acts on information he or she may encounter from the outside in terms of interactions with various events and other phenomena.

Such events, and other phenomena, may be regarded as types of stressors capable of producing stress. That is, work-related stress, presented in the following section, may be a result of the culmination of the perception of various stressors.

Work-Related Stress

Secondary school principals, as mentioned in Chapter I, encounter the insidious problem of work-related stress. Various events or activities in which the administrator must engage may be regarded as potential sources of stress. Swent (1978) identified five factors of work-related stress

among school administrators. These factors are administrative constraints, administrative responsibility, interpersonal relations, intrapersonal conflicts, and role expectations.

Administrative Constraints

Although Wilson and Firestone (1987) assert that "The principal is a key actor in controlling organizational constraints on the amount of time students spend on academic tasks," (p. 20), principals do not, as a group, have a large influence over the control of their own time. That is, since principals work for the public, constant availability to this public may be a type of occupational stressor. Innumerable demands are made on an administrator's time and as Bacharach and Mitchell (1983) write

> Educational administrators are subject to a variety of demands on the job. They respond to different groups (e. g., other administrators, school board members, teachers, union officials, government officials, parents, citizens, act as supervisors, and generally have to work well with other people to accomplish their job tasks, (p. 104).

Being interrupted frequently by telephone calls, staff members, meetings that take too much time, complying with state, federal, and organizational rules and policies, having large numbers of tasks that cannot be completed in a normal work day, memorandums, letters, and other forms of communications all may be regarded as daily events of a principal's work. As such, they may easily become types of occupational stressors that could be categorized under the heading of constraints intrinsic to administration.

Administrative Responsibility

Principals are responsible for various classical managerial functions which may, from time-to-time, act as types of occupational stressors. These functions include planning, organizing, staffing, directing, coordinating, reporting, and budgeting.

Koff, Laffey, Olson, and Cichon (1981) studied executive stress and the school administrator and found that one of the most stress-producing events among principals ". . . centered around staff management problems: e. g., staff reduction, teacher dismissal, [and] teacher evaluations," (p. 6).

Interpersonal Relations

According to Swent (1978), "Stress from interpersonal relations results from conflict with other people both inside and outside the school," (p. 9). Parents, staff members, students, community members, and central office superiors are examples of groups with which the principal must deal regularly. Consequently, the potential for conflict is multiplied by the number and the variety of interactions the principal has with these various groups.

Whether downward, lateral, upward, or outward communication, principals as a group are more vulnerable to conflicts arising in this area. That is, principals

must continually resolve conflict-driven events, since as Campbell (1958) has stated, "Education is a service which deals directly and intimately with people," (p. 172).

Barriers that exist between individuals or groups are another form of interpersonal relations that may be stress producting. For example, as Swent (1978) writes

> Cultural barriers, generation gaps, differences in frames of reference can generate barriers that lead to interpersonal conflict. Carl Rogers (1961) suggested a major hindrance to effective communication was the tendency to evaluate other's statements and opinions. The inclination to evaluate is usually increased in those situations where feelings and emotions are deeply involved. Thus, the strong feelings held by parents, staff members and students increase the likelihood that interpersonal relationships between the groups will be sources of pressure and stress, (p. 10).

The ambiguous nature of some relationships also may be sources of occupational stress among school principals and assistant principals. Consequently, according to Motowidlo, Packard, and Manning (1986), who write

> Interpersonal performance elements such as sensitivity, consideration, warmth, and tolerance of others, and cognitive/motivational performance elements such as concentration, composure, perseverence, and adaptability covary with perceptions of stressful events, subjective stress, depression, and hostility, (p. 624).

Intrapersonal Conflict

Conflicting demands between an individual's performance and his or her beliefs and expectations also provide a source of occupational stressors. Moreover, according

to Ellis and Harper (1977), and as cited by Swent (1978), "The stronger the motives or beliefs, the greater the threat or stress will be to the individual," (p. 12).

Examples of intrapersonal conflict among school principals, as well as other managers, include feeling not fully qualified to handle the tasks entailed by the job, not being able to obtain information which is needed to carry out the job peroperly, imposition on self of excessively high expectations, making decisions that affect the lives of individuals who are personally known to the decision-maker, having too little or inadequate authority to carry out assigned responsibilities, and job progress not at expected or anticipated rate or level. From among examples in this category, Gmelch and Swent (1982) found that the event of having to make decisions that affect the lives of individuals personally known to the decision-maker and imposing excessively high expectations on self provided the greates sources of stress among school principals and assistant principals.

Role Expectations

Beliefs and attitudes about the principal's role provides another source of stress. Role expectations, that is, may include preferences regarding personal attributes, functions, what an individual should be, what the individual should think and/or believe, and how the individual should relate to others.

Examples of role expectations among school principals include being unclear on the scope and responsibilities of the job, feeling of having too much responsibility delegated by superior, participating in school activities conducted outside the normal work day which takes away from personal time, being ambiguous regarding how a supervisor thinks of the individual or evaluates the individual's performance, feeling excessive pressure for increased performance beyond what the individual believes to be reasonable, beliefs that superiors do not expect enough from the individual, and feeling that one cannot resolve conflicting demands of those who have authority over the individual.

Numerous researchers have studied the administrative role, in general, and the principalship, in particular, over the past several years. In addition, and as an example, numerous books have been written concerning the topic of school administration, school leadership, and the principalship. Noted writers such as Fennema and Ayer (1984), Harris (1985), Hoy and Miskel (1982), Jacobson, Logsdon, and Wiegman (1973), Raubinger, Sumption, and Kamm (1974), Sergiovanni, Burlingame, Coombs, and Thurston (1987), and Silver (1983) have devoted much time and energy to examining the school administrator's role.

However, the role of the principal continues to be somewhat of an enigma to researchers in educational admin-istration, probably due to the ever-changing demands made

on the role by those in and out of the educational arena.

That is, the principal serves and must respond to an array

of clients. The school principal has responsibilities and

concomitant obligations to each client and client-group.

These groups include members of the board of education,

supervisors, the certificated and classified staff,

students, parents, and the community. Responsibility to

these various groups and the expectations the individual

places on the principal's role by respective groups

creates enormous potential for events that may be

perceived by the principal as stressful.

Interactions with the various groups produces occasional

conflict, and as Matteson and Ivancevich (1987) write

> A combination of the expectations and demands
> an employee places upon him- or herself and the
> expectations of other members of the organization
> results in a set of forces that may be termed "role
> pressures." When a situation arises in which two or
> more role pressures are in conflict with one another,
> a condition of "role conflict" exists. Role conflict
> is present whenever compliance with one set of pres-
> sures makes compliance with another set difficult,
> objectionable, or impossible, (p. 43).

Additionally, French and Caplan (1972), in their

landmark study of organizational stress and strain, demon-

strated that conflict decreases job satisfaction. These

researchers assert

> How a focal person reacted to conflict
> depended on the type of position he held
> relative to his role senders. The greater
> the power of the role senders over him, the
> greater the job dissatisfaction and sense of
> futility produced by the role conflict, (p. 37).

Section Summary

Sources of work-related stress are varied, but may be
grouped into five general categories relative to school
administration in particular and other types of administra-
tion in general. The categories include administrative
constraints, which deals with perceived stressors related
to time, meetings, work load and compliance with federal,
state, and organizational policies; administrative responsi-
bility, which deals with stressors related to the various
duties associated with administration such as supervision,
planning, budgeting, and evaluation; interpersonal relations,
which deals with stressors related to conflicts between
parents and school, between staff members and others; intra-
personal conflicts, which deals with those stressors related
to conflicts between one's performance and one's internal
beliefs and expectations; and, role expectations, which
deals with stressors generated from discrepancies between
an individual's expectations for the role and expectations
of others of the role.

The potential for school administrators to encounter
conflict-driven events could be expressed as the number and
kind of interactions in which the administrator is involved.
In other words, according to French and Caplan (1972),
"The administrator has more opportunity for conflict because
he [she] spends less time than others working along," (p. 37).

Rationale and Hypotheses

Rationale

As previously presented in Chapter I of this report, French, Rodgers and Cobb (1974) asserted that adjustement was "The goodness of fit between characteristics of the person and the properties of his [her] environment," (p. 316). And as also previously mentioned, stress is an insidious problem encountered by high school principals and assistant principals as they carry out their duties and responsibilities. Consequently, a study concerning organizational bureaucratization, belief systems, and work-related stress among these administrators, employed in large school districts, may provide needed information that will be of benefit both in terms of practice and theory. That is, the study may provide needed information to educational administration practitioners, as well as, provide information that will enrich the content and meaning of the Person-Enviornment Fit Theory.

Moreover, because person-environment fit theory is heuristic in nature, many variables have not yet been delineated. A refinement, then of the theory may be an outcome of including organizational bureaucratization, belief systems, and work-related stress as major variables in a research study.

It may be recalled that in discussing stress, French, et al, (1974) wrote of "Two kinds of demands and two kinds of corresponding supplies to meet those demands," (p. 317). The first kind of demands concerned the person's need for physical supplies from his or her environment and, especially, the environment's ability to fulfill the person's needs. The second kind of demands, situated in the environment, concerns those demands that the environment makes on the individual. Accordingly, the second kind of demand may be occupational in nature.

When the individual's abiltity is lacking to fulfill the demands made by his or her environment, the individual my experience stress. For a secondary school principal and assistant principal the "environment" is not only the school they manage, but also the school district in which they work. And, as was alluded to earlier, the organizational structure of a large school district may reflect many of the attributes of a bureaucracy. In addition, the organizational structure may place a variety of demands on the principals that they may feel they cannot adequately fulfill. And, as was noted by Bacharach and Mitchell (1983), "The greater the degree of bureaucratization, the greater the dissatisfaction of school district administrators," (p. 114).

Person-environment fit theory distinguishes between two kinds of environment. That is, according to the theory, there is

> . . . the objective environment that exists
> independently of the person's perception of it;
> and [there is] the subjective environment as it
> is perceived and reported by the person, (French,
> Rodgers, and Cobb, 1974, p. 316).

For purposes of the present research, the "subjective environment" is the principals' and assistant principals' perceptions of the organizational structure of their school districts.

Belief systems, however, according to some writers, influence perceptions. Moreover, the influence of belief systems on the perception of stress has been suggested by a number of researchers. Hence, it is quite plausible to suggest that belief systems may play an integral role in how school principals and assistant principals perceive work-related stress engendered by demands precipitated from their school districts' organizational structures, viz-a-viz, their environments.

Another key element of the person-environment fit theory is "the subjective fit between the subjective person and the subjective environment," (French, Rodgers, and Cobb, 1974, p. 316). That is, an individual perceives certain qualities about himself or herself, as well as, perceptions of his or her environment. Consequently, the perception of work-related stress may be a result of the individual's interpretation of himself or herself and his or her environment.

Occupational stressors among secondary school principals and assistant principals may be perceived differently.

These stressors, perceived in the administrators' environ-
ments, then, may act as factors that contribute to
diminishing their capacity to function in an effective or
productive manner.

Hypotheses

The focus of the present study was on perceptions of
work-related stress among secondary school principals and
assistant principals employed in large school districts as
related to the administrators' belief system and the
bureaucratization of the administrators' school districts'
organizational structures. Hence, hypotheses generated for
the purposes of statistical analyses were:

Ho.1. Bureaucratic structure will not contribute
significantly to the variance in work-related
stress or the factors of work-related stress.

Ho.1.1 Bureaucratization will not contribute
significantly to the variance in work-
related stress or the factors of
work-related stress.

Ho.1.2 The hierarchy-of-authority dimension of
bureaucratization will not contribute
significantly to the variance in work-
related stress or the factors of
work-related stress.

Ho.1.3   The division-of-labor dimension of
          bureaucratization will not contribute
          significantly to the variance in work-
          related stress or the factors of
          work-related stress.

Ho.1.4   The system-of-procedures dimension of
          bureaucratization will not contribute
          significantly to the variance in work-
          related stress or the factors of
          work-related stress.

Ho.1.5   The system-of-rules dimension of
          bureaucratization will not contribute
          significantly to the variance in work-
          related stress or the factors of
          work-related stress.

Ho.1.6   The impersonality dimension of bureau-
          cratization will not contribute
          significantly to the variance in work-
          related stress or the factors of
          work-related stress.

Ho.1.7   The technical-competency dimension of
          bureaucratization will not contribute
          significantly to the variance in work-
          related stress or the factors of
          work-related stress.

Ho.2. Belief systems will not contribute significantly to the variance in work-related stress or the factors of work-related stress.

Ho.3. The interaction between belief systems and the bureaucratic structure will not contribute significantly to the variance in work-related stress or the factors of work-related stress.

Ho.3.1 The interaction between belief systems and bureaucratization will not contribute significantly to the variance in work-related stress or the factors of work-related stress.

Ho.3.2 The interaction between belief systems and the hierarchy-of-authority dimension of bureaucratization will not contribute significantly to the variance in work-related stress or the factors of work-related stress.

Ho.3.3 The interaction between belief systems and the division-of-labor dimension of bureaucratization will not contribute significantly to the variance in work-related stress or the factors of work-related stress.

Ho.3.4 The interaction between belief systems and the system-of-rules dimension of

bureaucratization will not contribute significantly to the variance in work-related stress or the factors of work-related stress.

Ho.3.5   The interaction between belief systems and the system-of-rules dimension of bureaucratization will not contribute significantly to the variance in work-related stress or the factors of work-related stress.

Ho.3.6   The interaction between belief systems and the impersonality dimension of bureaucratization will not contribute significantly to the variance in work-related stress or the factors of work-related stress.

Ho.3.7   The interaction between belief systems and the technical-competency dimension of bureaucratization will not contribute significantly to the variance in work-related stress or the factors of work-related stress.

Summary

Chapter II, Review of Selected Literature, was presented in four sections: Organizational Bureaucratization, Belief Systems, Work-Related Stress and, Rationale and Hypotheses.

Each section incorporated information from the literature that was related to, or pertinent to, the variables of the present research.

The essential part of the section pertaining to organizational bureaucratization probably was best presented by Hall (1963) when, after studying the bases of the bureaucratic model and whether or not bureaucratic attributes are present in differing degrees in a variety of organizations, concluded that to summarily label an organization's structure as bureaucratic could be misleading. That is,

> . . . the characteristics or dimensions that are typically ascribed to bureaucracy appear to be variables that can be systematically measured to demonstrate the degree to which organizations are or are not bureaucratic, (p. 32)

Hall's eventual conclusion was that the concept of bureaucratization should be an intrinsically more valid means of viewing organizational structures because

> First, bureaucratic dimensions are meaningful organizational structural attributes; Second, when measured quantitatively, the dimensions exist in the form of continua rather than as dichotomies; [and], Third, the magnitude of the dimensions varied independently in the organizations studied, (p. 39).

For the present study, therefore, bureaucratization simply referred to "The extent to which the characteristics of bureaucracy are prevalent in an organization," (Silver, 1983, p. 83). Examples given of these characteristics included hierarchy of authority, division of labor, system of rules, system of procedures, impersonality, and technical competence.

As was noted in the section relating to belief systems, authors generally agreed that belief systems influence an individual's processing of information and that this influence, in turn, affects to varying degrees the individual's perceptions of events and other phenomena. The essence of this section was the presentation of Rokeach's (1960) concept of belief systems when, after investigating the dogmatic ideologies of a variety of groups, concluded that belief systems are

> The total of all beliefs, sets, expectancies, or hypotheses, conscious and unconscious, that a person at a given time accepts as true of the world in which he [sh] lives, (p. 33).

How individual's receive, evaluate, and act on information encountered from the outside was the crux of Rokeach's (1960) investigations. That is, he writes

> We assume that, in any situation, in which a person must act, there are certain characteristics of the situation that point to the appropriate action to be taken. If the person reacts in terms of such relevant characteristics, his response should be correct, or appropriate. The same situation also contains irrelevant factors, not related to the inner structure or requirements of the situation. To the extent that response depends on such irrelevant factors, it should be unintelligent or inappropriate. Every person, then, must be able to evaluate adequately both the relevant and irrelevant information he receives from every situation, (p. 57).

The section of Chapter II that discussed work-related stress presented five categories or factors developed by Swent (1978). After surveying 1,115 school administrators concerning which work-related events were perceived by

them as the greatest sources of occupational stress, the researcher categorized the sources into five factors with seven items in each factor. These factors were: administrative constraints, administrative responsibility, interpersonal relations, intrapersonal conflicts, and role expectations. This writer suggested that administrators were most bothered by events such as

> Complying with state, federal and organizational rules and policies; trying to complete reports and other paperwork on time; feeling that meetings take up too much time; and feeling that I have too heavy a work load, one that I cannot possibly finish during a normal day, (p. 130).

Also an important finding was that role expectations tended to be the least stressful of the five factors among the population Swent (1978) studied. However, spending time on after school activities ranked as the highest stressor in this particular category, (p. 132)

Presentation of the Rationale and Hypotheses comprised the fourth or final section of Chapter II. Three major hypotheses and related subhypotheses were generated to explore the current research problem.

CHAPTER III

RESEARCH DESIGN

Introduction

The purpose of Chapter III is to describe the research
methodology that was employed in the study. The chapter
provides a description of the population and sample, the
instrumentation, data collection and treatment of the data.

Population and Sample

The population for this study included all full-time
principals and full-time assistant principals of secondary
schools employed in the 100 largest school districts in the
United States. A multistage sampling design was used to
obtain a representative sample from the population.
According to Fowler (1984), multistage sampling is an
acceptable research strategy to implement when the absence
of a direct sampling source is apparent. In the present
study, the multistage sampling design that was used
contained two stages.

In the first stage, the 100 largest school districts
in the United States were identified from data contained
in the Digest of Education Statistics 1988, published by
the United States Department of Education, National Center

for Education Statistics, Office of Educational Research and Improvement. These school districts were arranged from the largest enrollment of 930,420 students to the smallest enrollment of 35,296 students. Enrollment of the 100 largest school districts totalled 8,454,477 students.

Because of the extreme range of enrollment size, four groups of school districts were formed to ensure that the sample would be in proportion to the population. Each of the four groups contained approximately 2,113,619 students. Group I contained a total of four school districts with an enrollment ranging from 228,062 to 930,420 students. Group II contained 19 school districts with enrollments ranging from 85,411 students to 206,790 students. Group III contained 32 school districts with enrollments ranging from 55,520 students to 82,645 students. Group IV contained a total of 45 school districts with enrollments ranging from 35,296 students to 55,333 students.

The researcher determined that one-fourth of the 100 school districts were needed to obtain a sufficient number of subjects for data analysis. Hence, 25 percent of the districts in each of the four groups were randomly selected. Consequently, from Group I a single school school district was randomly selected which had a student enrollment of 930,420. Five school districts were randomly selected from Group II. The enrollment for these districts were 187,031 students, 99,582 students, 92,440 students, 91,650 students,

and 89,742 students. The enrollments for randomly selected
school districts in Group II totalled 560,445 students.
Eight school districts were randomly selected from Group III.
The enrollments for these districts were 75,643 students,
67,898 students, 67,278 students, 59,886 students, 59,821
students, 58,943 students, 57,647 students, and 56,316
students. The enrollments of the Group III randomly selected
school districts totalled 503,432 students. Eleven school
districts were randomly selected from Group IV. The enroll-
ments for these districts were 50,748 students, 46,486
students, 44,152 students, 42,867 students, 41,330 students,
3°,968 setudents, 39,902 students, 39,578 students, 39,546
students, 38,440 students, and 35,612 students. The enroll-
ments of the Group IV randomly selected school districts
totaled 458,629 students.

In the second stage, high school administrators, employed
in the 25 districts that were randomly selected earlier, were
identified. These administrators were arranged according to
position in the school district to form two groups. Group
A was comprised of an exhaustive and alphabetized list of
individuals who are high school principals. Group B was
comprised of an exhaustive and alphabetized list of indi-
viduals who are high school assistant or vice principals.
Thus, Groups A and B were considered to be the sampling
frame of the study's population.

Statistical tests performed on the data collected for the present study required certain numbers of respondents. Thus, a minimum of 300 high school principals and 300 high school assistant principals were randomly selected from Group A and from Group B respectively. These 600 people, therefore, represented the national sample of high school administrators employed in large, urban school districts.

Since there are identifiable stress cycles in the school year, the packet of materials was mailed during the early part of the Spring, 1990 semester. According to Hembling and Gilliland (1981), this time of the regular school year is devoid of the type of pace required of administrators, and others, at the beginning and ending of a school year. To enhance the return-rate of usable surveys for data analysis, every effort was made to select a time which was relatively free of stress.

In addition, each high school administrator was assured of complete anonymity in the present study. This assurance also should have contributed to maximizing the number of participants returning their completed surveys with the incorporated data sheet.

Surveys were mailed to 600 secondary school principals and assistant principals in 16 of the contiguous 48 states. Demographic data pertaining to position, gender, age, hours worked, years in present position, years in administration, school enrollment, district enrollment, community and grade

configuration of the administrator's school based on
responses to the research survey instrument are provided
in Tables I and II.

In Table I, frequency scores show that an approcimate
three-to-one ratio of male-to-female secondary school
administrators responded to the survey. Specifically, in
the sample, 36 percent of the respondents were male princi-
pals and 10 percent were female principals; 37 percent were
male assistant principals and 17 percent were female assis-
tant principals. Generally, Table I also shows that male
principals and assistant principals were older than their
female counterparts. The mean age for female principals
and assistant principals was 45.83 years, whereas the mean
age for male principals and assistant principals was
48.18 years.

TABLE I

COMPARISON OF POSITION AND GENDER
BY RESPONDENTS' AGE GROUP

Age Group Years	Principal Male N=	Female N=	Assistant Principal Male N=	Female N=
30 - 39	3	1	8	5
40 - 49	36	11	48	28
50 - 59	32	9	22	4
60 - 69	5	1	4	0

According to Table II, the largest number of secondary school principals in the sample had served in their present position for less than five years and reported working between 56 and 60 hours per week. The larges number of assistant principals also had served in their present position for five years or less, but reported working between 46 and 50 hours per week. The greatest number of years in administration reported by principals in this sample was between 11 and 15 years, and they reported working between 56 and 60 hours per week. The greatest number of years in administration reported by assistant principals in this sample was between one and five years, and they reported working between 46 and 50 hours per week.

TABLE II

COMPARISON OF YEARS IN PRESENT POSITION,
YEARS IN ADMINISTRATION BY NUMBER OF
HOURS WORKED PER WEEK AND POSITION

Number of Hours Worked Per Week

	36-40		40-45		46-50		51-55		56-60		61-65		66+	
In Present Position														
Years	P	AP	P	AP	P	AP	P	AP	P	AP	P	AP	P	AP
	N=		N=		N=		N=		N=		N=		N=	
1 - 5	4	12	4	11	6	18	13	10	20	16	7	3	5	3
6 - 10	1	4	1	1	4	8	5	6	6	5	1	1	1	0
11 - 15	1	1	0	4	1	3	2	2	2	3	0	2	4	0
16 - 20	0	0	1	1	1	2	0	0	0	0	0	0	0	0
21 - 25	0	0	0	0	0	0	1	0	2	0	0	0	0	0
26 - 30	0	0	0	0	1	0	0	0	0	0	0	0	0	0
In Administration														
Years	P	AP	P	AP	P	AP	P	AP	P	AP	P	AP	P	AP
	N=		N=		N=		N=		N=		N=		N=	
1 - 5	0	3	1	4	1	12	1	7	2	8	0	2	0	1
6 - 10	1	6	3	4	4	8	5	7	3	8	2	1	2	0
11 - 15	2	2	1	5	3	4	6	2	11	5	3	2	4	2
16 - 20	3	2	1	2	3	5	6	1	9	2	1	1	3	0
21 - 25	1	2	1	0	3	2	3	1	4	1	1	0	0	0
26 - 30	0	0	0	2	2	0	0	0	1	0	1	0	0	0

P = Principal, AP = Assistant Principal

As shown in Table III, respondents from 16 of the 25 districts sampled reported working in an urban school district. In addition, respondents in 21 of the 25 sampled districts reported a nine through 12 grade configuration for the school in which they worked. The enrollment means for the districts sampled ranged from a low of approximately 35,000 students to a high of approximately 890,000 students. The enrollment means for size of high school ranged from a low of approximately 800 students to a high of approximately 2400 students.

TABLE III

COMPARISON OF RESPONDENTS' SCHOOL DISTRICT
SIZE MEAN, HIGH SCHOOL SIZE MEAN,
COMMUNITY TYPE, AND SCHOOL
GRADE CONFIGURATION

Sample	District Size Mean	School Size Mean	Type of Community	School Grade Configuration
1	60750.000	839.000	Urban	9 – 12
2	51000.000	863.750	Suburban	9 – 12
3	43666.667	913.833	Suburban	9 – 12
4	111500.000	1256.167	Suburban	10 – 12
5	43000.000	2400.000	Urban	9 – 12
6	103315.875	1557.500	Urban	9 – 12
7	56666.667	1197.833	Urban	9 – 12
8	39725.000	1287.167	Urban	9 – 12
9	34666.667	1400.000	Urban	8 – 12
10	71428.571	1615.429	Suburban	8 – 12
11	59384.615	1421.538	Suburban	9 – 12
12	181333.333	1462.083	Urban	9 – 12
13	70210.526	1330.000	Suburban	10 – 12
14	91500.000	1220.000	Urban	9 – 12
15	123500.000	2070.000	Suburban	9 – 12
16	889510.638	1926.426	Urban	9 – 12
17	37260.909	959.091	Urban	9 – 12
18	41833.333	1520.833	Urban	9 – 12
19	53500.000	1418.750	Suburban	9 – 12
20	54750.000	1615.000	Urban	9 – 12
21	62611.111	1585.889	Urban	9 – 12
22	45000.000	1000.000	Urban	9 – 12
23	55333.333	1434.833	Urban	9 – 12
24	62800.000	1792.200	Suburban	9 – 12
25	51571.429	1885.714	Urban	9 – 12

Instrumentation

Three instruments were used to measure the variables
included in this study. The instruments for this study
were: (1) Hall's Organizational Inventory, which was used
to measure dimensions of bureaucracy characterizing the
organizational structure of large school districts; (2) M.
Rokeach's Dogmatism Scale, Form E, which was used to
measure the administrator's belief systems; and, (3) Boyd
Swent's Administrative Stress Index (ASI), which was used
to measure the individual administrator's perception of
work-related stress. The mean scores, standard deviation
and ranges calculated for the total sample in this study
are shown in Table IV. Each instrument used in this study
is discussed in the narrative that follows.

The Organizational Inventory

Richard Hall (1961) developed the Organizational
Inventory as a means of measuring the fundamental princi-
ples of bureaucracy as conceptualized by the German
sociologist, Max Weber. The instrument operationalizes
the following theoretical constructs: (1) hierarchy of
authority, (2) division of labor, (3) rules for incumbents,
(4) procedural specifications, (5) impersonality, and
(6) technical competence.

TABLE IV

MEANS, STANDARD DEVIATIONS AND RANGES
OF INSTRUMENTS USED WITH THE
SAMPLE IN THIS STUDY

Instrument	Mean	Standard Deviation	Range
Dogmatism Scale, Form E			
Belief Systems	121.220	25.591	47 - 181
Open	117.855	22.905	47 - 160
Closed	169.286	6.057	161 - 181
Organizational Inventory			
Bureaucratization Dimensions	190.397	17.374	141 - 237
Hierarchy of Authority	32.402	6.976	19 - 54
Division of Labor	28.589	4.695	17 - 43
System of Procedures	32.346	5.800	20 - 53
System of Rules	32.715	4.438	22 - 44
Impersonality	29.654	3.567	19 - 39
Technical Competence	34.752	6.355	18 - 47
Administrative Stress Index			
Work-Related Stress Factors	88.164	16.281	39 - 136
Administrative Constraints	20.804	4.386	9 - 32
Administrative Responsibility	15.570	4.031	7 - 31
Interpersonal Relations	18.276	4.852	7 - 51
Intrapersonal Conflicts	17.458	3.760	7 - 27
Role Expectations	16.056	3.715	7 - 26

The scale measuring hierarchy of authority was concerned with feelings employees hold regarding superior authority. Attitudes concerning the variety of work entailed by a job and specificity of the work, as well as level of work, were measured by the division-of-labor scale. The rules-for incumbents scale attended to the organization having a written manual of rules, following written regulations, and the application of such rules. The procedural-specifications scale addressed individual problems, decision making, personal judgement, and superior authority within the organization. Feelings the individual holds in terms of his or her personal and social relationships with the organization were measured by the impersonality scale. The technical-competence scale measured such areas as hiring, employment qualifications and promotions.

The Organizational Inventory consisted of 62 items divided into five scales of 10 items each and a sixth scale composed of 12 items. Reliability for the six scales ranged from .80 to .90 Hall, p. 20). Each item associated with the six scales was a short statement which reflected an ideal type of organizational bureaucracy.

Respondents were asked to determine the degree to which the statements accurately described his or her school district organization. Respondents were to indicate their responses to each statement by using a five-point Likert-type scale. Possible responses for each statement were:

(a) very well, (b) well, (c) undecided, (d) poor, and
(e) very poor.

The degree of bureaucratization for a school district
was individually determined by principals and assistant
principals of that school district. That is, high school
principals and assistant principals in a school district
who had high total scores were regarded as perceiving a
high degree of bureaucratization in their school district.
Those administrators in a district who had low total scores
were regarded as perceiving a low degree of bureaucratiza-
tion in their school district.

According to Silver (1983), "An organization's degree
of bureaucratization refers to the extent to which the
characteristics of bureaucracy are prevalent," (p. 83).
Utilizing employees' perceptions to identify the degree of
bureaucratization that may characterize the employees'
organizational structure may be considered by some as an
inappropriate approach. However, Hall (1963) recognized
that utilizing employees to identify degrees of bureau-
cratization in their own organizational structure may not
be the same as the official organizational structure set
out by the organization itself. He asserted that

> The official structure, however, is only as
> as important as the degree to which it is
> adhered to. If the actual organizational
> structure is a replica of the formal struc-
> ture, then the formal structure is the
> significant structural component. On the
> other hand, the degree of variation from the
> formal structure is the actual significant
> structure for organizational operation, (p. 35).

In addition, utilizing employees' perceptions at only
one or two levels of administrative responsibility also may
be regarded as an inappropriate approach espcially since
Hall's original study was done using the perceptions of
employees at many levels of administrative and non-admini-
strative responsibility. However, in a subsequent study
conducted by Hall (1969) to examine the relationship
between professionalism and bureaucratization, perceptions
of employees at specific levels of responsibility were
utilized to determine the degree of bureaucratization for
their organizational structure; e. g., he used only
elementary and secondary school teachers working in the same
school system to determine the degree of bureaucratization
in that school system, (p. 97).

Therefore, the degree of bureaucratization character-
izing a school district may legitimately be determined by
selected employee groups of that school district. For
purposes of this study, high school principals and assis-
tant principals were the employee groups surveyed in a
school district. Moreover, the measurements obtained were
utilized to (1) determine the degree of bureaucratization
of a school district and, (2) provide measurements of the
extent to which dimensions of bureaucracy were prevalent
in an organization according to an individual member's
perception of his or her organizational structure.

The Dogmatism Scale, Form E

Milton Rokeach (1960) began investigating the nature
of belief systems with the analysis of ideological dogmatism.
Further, he found that individuals tended to systematically
organize new information in congruence with what they
already accepted as true and untrue about the physical world,
ideas, people and authority. It should be noted that
Rokeach was primarily interested in the structure of belief
systems as opposed to solely investigating their content.
This particular orientation enabled him to identify specific
properties associated with belief systems. Moreover, his
work suggests that much of an individual's behavior,
regarding separate belief systems, seems to be determined by
how that individual's cognitive organizations, to varying
degrees, are structured.

The Dogmatism Scale, Form E, was developed by Rokeach
(1960) primarily as a means to measure individual differences
in belief systems. The scale is comprised of 40 items with
a reliability that ranges from .68 to .93 with a median of
.74 (pp. 89-90). Utilizing the Method of Known Groups,
Rokeach successfully established the validity of the
Dogmatism Scale, Form E, (pp. 101-108).

Respondents were asked to indicate their degree of
agreement or disagreement on a forced-choice scale ranging
from negative three to positive three. The zero point was
excluded in order to force responses toward a degree of

disagreement ranging from a negative one to a negative three, or to a degree of agreement ranging from a positive one to a positive three. The initial values for the forced-choice scale were: positive one equaled "I agree a little," positive two equaled "I agree on the whole," positive three equaled "I agree very much," negative one equaled "I disagree a little," negative two equaled "Idisagree on the whole," and negative three equaled "I disagree very much."

For scoring purposes, the forced-choice scale of responses were converted to a seven-point scale with the negative three equal to one, negative two equal to two, negative three equal to three, insertion of the zero which was equal to four, positive one equal to five, positive two equal to six, and positive three equal to seven. The respondent's total score on the instrument then was the sum of points accumulated on the 40 items that comprise the instrument.

The Administrative Stress Index (ASI)

Boyd Swent (1978) developed the Administrative Stress Index (ASI) for the purpose of measuring the degree that selected work-related stressors may affect school administrators. Swent studied, 1,156 school administrators in a single state and was subsequently able to identify 35 work-related stressors. The 35 work-related stressors were then

categorized into five factors. The factors are:
(a) constraints intrinsic to administration, (b) administrative responsibilities, (c) interpersonal relations, (d) intrapersonal conflict, and (e) role expectations. The 35 work-related stressors were written in the form of questions with responses that may be positioned on a five-point Likert-type scale.

High school principals and assistant principals were asked to determine the degree to which the 35 work-related stressors affected them in the performance of their job. Available responses for each work-related stressor were: (1) "never" bothers me, (2) "rarely" bothers me, (3) "some-mes" bothers me, (4) "often" bothers me, and (5) "always" bothers me.

It should be noted that Swent included the response choice of "Not Applicable" in his original study. He included this term because school district superintendents were included among the 1,156 participants in the study and that certain items on the instrument were not appropriate for this position. That is, the instrument's items speak . administration of a school rather than administration of a school district. In consideration of the present study's sample, which was composed solely of high school principals and assistant principals, the term "Not Applicable" was not a necessary response choice for reasons given previously.

Each administrator was given a perceived work-related stress score within the range of 35 to 175. The higher

the secondary school principals and assistant principals scored, the greater their perception of stress.

Data Collection

Data were collected from high school principals and assistant principals working in large school districts throughout the United States. All data collection was accomplished via the United States Postal Service. High school administrators who were randomly selected were sent a packet of materials containing the following: (a) a cover letter briefly explaining the purpose of the study, which was printed on the face of the survey; (b) a data sheet, which was Part I of the survey instrument; (c) the study's three instruments compiled as Parts II, III, and IV of the survey instrument, each part with directions for completion and; (d) a stamped, self-addressed envelope for return of the four-part overall survey instrument.

Table V shows that of the 600 secondary school principals and assistant principals to whom surveys were mailed, 223 (37.00%) returned their surveys; and, of those that were returned, 214 (35.66%) were used for data analysis. Of the 300 principals who were mailed surveys, 104 (34.66%) returned their surveys and, of those returned, 98 (32.66%) were used for data analysis. Six principals returned their surveys blank. Of the 300 assistant principals to whom surveys were mailed, 119 (39.66%) returned their surveys, and, of those returned, 116 (38.66%) were used for data analysis.

Three assistant principals returned their surveys blank.
A few surveys were returned after completing data analysis.

TABLE V

SURVEY RESPONSES

Sample	Total Surveys Mailed	Respondents Number (%)		Follow-up Respondents	Total Returned Number (%)	
Principal	300	94	(31)	10	104	(35)
Assistant Principal	300	109	(36)	10	119	(40)
Total	600	203	(34)	20*	223	(37)

* All 20 of the follow-up respondents returned their survey

A lower return-rate was obtained than was anticipated
even though permission had been obtained by the researcher
either in writing or by telephone between some of the
school districts and their respective research departments.
The research departments' requirements were that the
researcher provide them information about the results of
the study when it was completed. However, since the
present researcher determined that the return-rate possibly

was low, ten principals and ten assistant principals who
had failed to return their surveys (follow-up respondents)
were randomly selected and personally contacted to ask them
to assist by completing their surveys. After receiving
surveys from this follow-up group, the mean scores on all
major variables from respondents were compared with the
mean scores obtained from the follow-up respondents. A
t-Test procedure then was computed for the two sets of means
to determine if there was a significant difference between
the respondents' means and the follow-up respondents' means
for each variable. According to the results displayed in
Table VI, two of the three sets of means showed a signifi-
cant difference at the .05 level. However, since there was
only about a nine point difference between the stress set
of means and only about a 12 point difference between the
belief systems set of means, the question of the strength-
of-association needed to be examined. Writers such as
Linton and Gallo, Jr. (1975) suggest that the appropriate
strength-of-association measure for the t-Test is eta
squared, (p. 334). The eta-squared analysis resulted in a
two to three percent variance being accounted for by
factors associated with whether or not the means were from
respondents or the follow-up respondents. In effect, even
though statistical significance was achieved for two of the
three sets of means, the "strength" of the differences was
very weak (see Table VI). Consequently, because the
strength of the difference was quite weak, and because

97 to 98 percent of the variance in the difference between the means cannot be explained, it was determined that the respondents in this study probably were not unlike the follow-up respondents and that the sample, therefore, appeared to be representative of the population studied.

TABLE VI

A COMPARISON OF MEANS AND STANDARD DEVIATIONS
OF STRESS SCORES, BELIEF SCORES, AND
BUREAUCRACY SCORES FOR RESPONDENTS
AND FOLLOW-UP RESPONDENTS

Surveys	Stress Mean	SD	t-score (eta^2)	Beliefs Mean	SD	t score (eta^2)
Respondents	87.278	16.067	2.508* (.03)	120.093	25.028	2.021* (.02)
Follow-up Respondents	96.750	16.235		132.150	28.983	

Surveys	Bureaucracy Mean	SD	t-score
Respondents	189.835	17.254	1.478^{ns}
Follo-up Respondents	195.850	18.039	

* P < .05

Treatment of Data

The hyptheses relating to the contribution of bureau-
cratic structure, belief systems, and the interaction effect
of these variables on the levels of work-related stress of
principals and assistant principals were tested by develop-
ing 42 separate multiple regression models with interaction
terms. Each regression model contained a bureaucratic
structure term, a belief system term and a bureaucratic
structure X belief system term.

To control for multicollinearity, a phenomenon that is
closely associated with regression models incorporating
interaction terms, it was necessary to center the indepen-
dent variables prior to constructing the regression models.
To achieve this, the mean score of each variable was
subtracted from individual scores to create the transformed
variables (Jaccard, Turrisi, and Wan, 1990, pp. 30-33).

To control for the shrinkage of the resulting
predicting equation, a double cross-validation procedure
was employed with the regression models found to be
significant. According to Tabachnick and Fidell (p. 91),
"At the very least, separate analysis of two halves of an
available sample should be conducted with conclusions
limited to results that hold over the two analyses." Some
statisticians believe that a cross-validation procedure is
inadequate and that a double cross-validation procedure
should be employed (Kerlinger and Pedhazur, 1973).

Accordingly, the sample was split into two groups, the principals and the assistant principals. One group was designated as the calibration sample and the other as a screening sample (Cohen and Cohen, 1983). With the screening sample, a regression procedure was employed to obtain a regression equation. The resulting regression equation was then applied to each set of scores in the calibration sample to obtain a predicted score for the dependent variable. The relationship between the predicted scores and actual scores was computed. Next, the samples were reversed; the screening sample became the calibration sample and the calibration sample became the screening sample. The same procedure was repeated. The double cross-validation procedure yielded two R's, two r's, and two prediction equations (Kerlinger and Pedhazur, 1973).

Summary

As mentioned in Chapter I, possible factors linked to experienced work-related stress are many, but several seem to be associated with belief systems and organizational structure. This chapter has included information on the methodology employed in this study's investigation of these variables' relationship to the perception of work-related stress and its factors among high school principals and assistant principals in large school districts.

CHAPTER IV

PRESENTATION AND ANALYSIS OF THE DATA

Introduction

The purpose of this study was to determine the contri-
butions of bureaucratization, belief systems, and the
interaction of these variables to the variance in work-
related stress or factors of work-related stress among
secondary school principals and assistant principals
working in the largest school districts in the United
States. Chapter IV presents an analysis of the data
collected for this study.

Data analysis was based on responses to the study's
survey instrument by a sample of 214 secondary school
principals and assistant principals in 25 school districts
located throughout the contiguous 48 states. The survey
instrument utilized to collect the data was a compilation
of three separate instruments: The Administrative Stress
Index, the Dogmatism Scale, Form E, and the Organizational
Inventory. Demographic data also were collected to obtain
a general description of the respondents in the sample.

This chapter is divided into two major sections. The
first section concerns tests of hypotheses. Section two
presents the results of the cross-validation procedure.

Tests of Hypotheses

The literature suggests that perception of work-related stress or factors of work-related stress is related to bureaucratic structure, belief systems, and the interaction between bureaucratic structure and belief systems. Therefore, the contributions of these variables to the variance in work-related stress or factors of work-related stress were explored in the present study.

Forty-two models were constructed to test three major hypotheses. Each model contained a bureaucratic structure term (bureaucratization, hierarchy of authority, division of labor, system of procedures, system of rules, and technical competency); a belief systems term; and a corresponding bureaucratic structure-belief systems interaction term which was regressed on work-related stress or one of five factors associated with work-related stress (administrative constraints, administrative responsibility, interpersonal relations, intrapersonal conflict, and role expectations).

The results of this study are organized around the six dependent variables. Within each section the discussion was focused on the three major hypotheses. The order of presentation will be work-related stress, administrative constraints, administrative responsibility, interpersonal relations, intrapersonal conflict, and role expectations.

Work-Related Stress

Six of the seven models displayed in Table VII attained the .05 level of significance and are, therefore, relevant to this study. The amount of variance explained by the six significant models ranged from .038 to .066.

It was hypothesized that bureaucrataic structure would not contribute significantly to the variance in work-related stress. According to the results reported in Table VIII, hierarchy of authority, impersonality, and technical competency contributed significantly to the variance in work-related stress and the relevant null hypotheses were, therefore, rejected. The remaining four null hypotheses relating to bureaucratization, division of labor, system of procedures, and system of rules were not rejected.

It was hypothesized that belief systems would not contribute signicantly to the variance in work-related stress. According to the results reported in Table VIII, the null hypothesis was overwhelmingly rejected in all seven models. Belief systems, when paired with bureaucratization and six of its dimensions in seven separate models, is a significant predictor of work-related stress. In addition, as indicated by the standardized beta weights, belief systems was the best predictor of work-related stress in four of the seven models.

TABLE VII

REGRESSION EQUATION SHOWING THE EFFECTS OF BUREAU-
CRATIC STRUCTURE, BELIEF SYSTEMS, AND INTERACTION
TERM ON WORK-RELATED STRESS

Model	R	R^2	F
(1) Bureaucratization (BUR) Belief Systems (BEL) BUR X BEL	.195	.038	2.756*
(2) Hierarchy of Authority (HA) Belief Systems (BEL) HA X BEL	.246	.060	4.506*
(3) Division of Labor (DL) Belief Systems (BEL) DL X BEL	.197	.039	2.823*
(4) System of Procedures (SP) Belief Systems (BEL) SP X BEL	.230	.053	3.927*
(5) System of Rules (SR) Belief Systems (BEL) SR X BEL	.248	.061	4.579
(6) Impersonality (IM) Belief Systems (BEL) IM X BEL	.247	.061	4.537*
(7) Technical Competency (TC) Belief Systems (BEL) TC X BEL	.257	.066	4.935*

* $P < .05$

TABLE VIII

SIGNIFICANT MODELS SHOWING EFFECTS OF BUREAUCRATIC
STRUCTURE, BELIEF SYSTEMS, AND INTERACTION TERM
ON WORK-RELATED STRESS

Model	Beta Weight	Sig. T
(1)		
Bureaucratization (BUR)	.077	1.091
Belief Systems (BEL)	.158	2.245*
BUR X BEL	.012	.169
(2)		
Hierarchy of Authority (HA)	.172	2.495*
Belief Systems (BEL)	.138	1.997*
F X BEL	.014	.209
(3)		
Division of Labor (DL)	-.075	-1.082
Belief Systems (BEL)	.196	2.840*
DL X BEL	-.036	- .525
(4)		
System of Procedures (SP)	.132	1.888
Belief Systems (BEL)	.144	2.063*
SP X BEL	-.077	-1.148
(6)		
Impersonality (IM)	.174	2.521*
Belief Systems (BEL)	.136	1.962*
IM X BEL	.024	.357
(7)		
Technical Competency (TC)	-.166	-2.441*
Belief Systems (BEL)	.144	2.126*
TC X BEL	.071	1.067

* $P < .05$

It was hypothesized that the interaction between bureaucratic structure and belief systems would not contribute significantly to the variance in work-related stress. According to data displayed in Table VIII, this null hypothesis was not rejected in all seven models.

Administrative Constraints

Of the seven models displayed in Table IX, only one attained the .05 level of significance and is, therefore, relevant to this study. The amount of variance explained by the model is .037.

It was hypothesized that bureuocratic structure would not contribute significantly to the variance in the administrative constraints factor of work-related stress. Data presented in Table X indicate that only one dimension of bureaucratization, system of procedures, significantly contributed to the variance in the administrative constraints factor of work-related stress and, therefore, the null hypothesis is rejected. The null hypotheses relating to bureaucratization, hierarchy of authority, division of labor, system of rules, impersonality, and technical competency were not rejected.

Also, according to the results shown in Table X, the null hypothesis stating belief systems would not contribute significantly to the variance in administrative constraints was not rejected. Belief systems, when paired with the system of procedures dimension of bureaucratization, was

not found to be a significant predictor of the administrative constraints factor of work-related stress as indicated by the beta weights of the model.

It was hypothesized that the relevant bureaucratic structure-belief systems interaction term would not contribute significantly to the variance in administrative constraints. This hypothesis also was not rejected in the model (see Table X).

TABLE IX

REGRESSION EQUATION SHOWING THE EFFECTS OF BUREAU-
CRATIC STRUCTURE, BELIEF SYSTEMS, AND INTERACTION
TERM ON ADMINISTRATIVE CONSTRAINTS FACTOR

Model	R	R^2	F
(8) Bureaucratization (BUR) Belief Systems (BEL) BUR X BEL	.107	.012	.816
(9) Hierarchy of Authority (HA) Belief Systems (BEL) HA X BEL	.143	.021	1.470
(10) Division of Labor (DL) Belief Systems (BEL) DL X BEL	.153	.023	1.671
(11) System of Procedures (SP) Belief Systems (BEL) SP X BEL	.192	.037	2.679[*]
(12) System of Rules (SR) Belief Systems (BEL) SR X BEL	.122	.015	1.066
(13) Impersonality (IM) Belief Systems (BEL) IM X BEL	.146	.021	1.532
(14) Technical Competency (TC) Belief Systems (BEL) TC X BEL	.172	.029	2.127

* P < .05

TABLE X

SIGNIFICANT MODEL SHOWING EFFECTS OF BUREAUCRATIC
STRUCTURE, BELIEF SYSTEMS, AND INTERACTION TERM
ON ADMINISTRATIVE CONSTRAINTS FACTOR

Model	Beta Weight	Sig. T
(11)		
System of Procedures (SP)	.134	1.902*
Belief Systems (BEL)	.061	.871
SP X BEL	-.111	-1.635

* P < .05

Administrative Responsibility

One of the seven models displayed in Table XI attained
the .05 level of significance and is, therefore, relevant
to this study. The amount of variance explained by this
model is .044.

It was hypothesized that bureaucratic structure would
not contribute significantly to the variance in work-
related stress or its factors. Results reported in Table
XII indicate that only one element of bureaucratic struc-
ture, the division of labor dimension of bureaucratization,
contributed significantly to the variance in the admin-
istrative responsibility factor of work-related stress and,
therefore, the null hypothesis was rejected. The null
hypotheses relating to bureaucratization, hierarchy of

authority, system of procedures, system of rules, imper-
sonality, and technical competency were not rejected.

Also, according to the results reported in Table XII,
the null hypothesis stating that belief systems would not
contribute significantly to the variance in administrative
responsibility was not rejected. Belief systems, when
paired with the bureaucratization dimension of division of
labor, was not a significant predictor of the administra-
tive responsibility factor of work-related stress.

The null hypothesis stating that the relevant bureau-
cratic structure-belief systems interaction would not
contribute significantly to the variance in the administra-
tive responsibility factor of work-related stress was not
rejected in the model reported in Table XII.

TABLE XI

REGRESSION EQUATION SHOWING THE EFFECTS OF BUREAU-
CRATIC STRUCTURE, BELIEF SYSTEMS, AND INTERACTION
TERM ON ADMINISTRATIVE RESPONSIBILITY FACTOR

Model	R	R^2	F
(15) Bureaucratization (BUR) Belief Systems (BEL) BUR X BEL	.128	.016	1.159
(16) Hierarchy of Authority (HA) Belief Systems (BEL) A X BEL	.068	.005	.321
(17) Division of Labor (DL) Belief Systems (BEL) DL X BEL	.209	.044	3.195*
(18) System of Procedures (SP) Belief Systems (BEL) SP X BEL	.118	.014	.991
(19) System of Rules (SR) Belief Systems (BEL) SR X BEL	.122	.015	1.055
(20) Impersonality (IM) Belief Systems (BEL) IM X BEL	.048	.002	.165
(21) Technical Competency (TC) Belief Systems (BEL) TC X BEL	.064	.004	.291

* P < .05

TABLE XII

SIGNIFICANT MODEL SHOWING EFFECTS OF BUREAUCRATIC
STRUCTURE, BELIEF SYSTEMS, AND INTERACTION TERM
ON ADMINISTRATIVE RESPONSIBILITY FACTOR

Model	Beta Weight	Sig. T
(17)		
Division of ꓔr (DL)	-.210	-3.052[*]
Belief Systems (BEL)	.071	1.024
DL X BEL	.012	.172

* P < .05

Interpersonal Relations

All seven of the models displayed in Table XIII
attained the .05 level of significance and, therefore, are
relevant to this study. The amount of variance explained
by these models ranged from .045 to .089.

It was hypothesized that bureaucratic structure would
not contribute significantly to the variance in the inter-
personal relations factor of work-related stress. Results
reported in Table XIV show that bureaucratization, hier-
archy of authority, system of procedures, and impersonality
contributed significantly to the variance in interpersonal
relations and the relevant null hypotheses, therefore, are
rejected. Null hypotheses relating to division of labor,

system of rules, and technical competency were not rejected (see Table XIV).

Also, according to the results reported in Table XIV. the null hypothesis stating that belief systems would not contribute significantly to the variance in interpersonal relations was rejected in all seven models. Belief systems, when paired with bureaucratization and six of its dimensions, was a significant predictor of the itner- personal relations factor of work-related stress. In addition, in five of the seven models, as indicated by the standardized beta weights, belief systems was the best redictor of the interpersonal relations factor of work- related stress.

Finally, the null hypothesis stating that the relevant bureaucratic structure-belief systems interaction would not contribute significantly to the variance in the interper- sonal relations factor of work-related stress was not rejected in all models reported in Table XIV.

TABLE XIII

REGRESSION EQUATION SHOWING THE EFFECTS OF BUREAU-
CRATAIC STRUCTURE, BELIEF SYSTEMS, AND INTERACTION
TERM ON INTERPERSONAL RELATIONS FACTOR

Model	R	R^2	F
(22) Bureaucratization (BUR) Belief Systems (BEL) BUR X BEL	.263	.069	5.223[*]
(23) Hierarchy of Authority (HA) Belief Systems (BEL) HA X BEL	.298	.089	6.805[*]
(24) Division of Labor (DL) Belief Systems (BEL) DL X BEL	.211	.045	3.272[*]
(25) System of Procedures (SP) Belief Systems (BEL) SP X BEL	.251	.063	4.717[*]
(26) System of Rules (SR) Belief Systems (BEL) SR X BEL	.237	.056	4.150[*]
(27) Impersonality (IM) Belief Systems (BEL) IM X BEL	.280	.078	5.939[*]
(28) Technical Competency (TC) Belief Systems (BEL) TC X BEL	.243	.059	4.398[*]

* $P < .05$

TABLE XIV

SIGNIFICANT MODELS SHOWING EFFECTS OF BUREAUCRATIC
STRUCTURE, BELIEF SYSTEMS, AND INTERACTION TERM
ON INTERPERSONAL RELATIONS FACTOR

Model	Beta Weight	Sig. T
(22)		
Bureaucratization (BUR)	.143	2.074*
Belief Systems (BEL)	.160	2.304*
BUR X BEL	.085	1.276
(23)		
Hierarchy of Authority (HA)	.210	3.097*
Belief Systems (BEL)	.153	2.253*
HA X BEL	.062	.940
(24)		
Division of Labor (DL)	-.052	- .756
Belief Systems (BEL)	.215	3.123*
DL X BEL	-.005	- .075
(25)		
System of Procedures (SP)	.151	2.174*
Belief Systems (BEL)	.165	2.387*
SP X BEL	-.005	- .068
(26)		
System of Rules (SR)	.082	1.197
Belief Systems (BEL)	.178	2.582*
SR X BEL	.083	1.216
(27)		
Impersonality IM	.192	2.805*
Belief Systems (BEL)	.156	2.276*
IM X BEL	.050	.758
(28)		
Technical Competency (TC)	-.092	-1.345
Belief Systems (BEL)	.183	2.686*
TC X BEL	.088	1.302

* P < .05

Intrapersonal Conflict

Four of the seven models displayed in Table XV attained the .05 level of significance and, therefore, are relevant to this study. The amount of variance explained by the four significant models ranged from .042 to .077.

It was hypothesized that bureaucratic structure would not contribute significantly to the intrapersonal conflict factor of work-related stress. According to the results reported in Table XVI, the impersonality and technical competency dimensions of bureaucratization contributed significantly to the variance in the intrapersonal conflict factor of work-related stress and the relevant null hypotheses were rejected. The remaining five null hypotheses relating to bureaucratization, hierarchy of authority, division of labor, system of procedures, and system of rules were not rejected.

Moreover, according to the results reported in Table XVI, the null hypothesis stating that belief systems would not contribute significantly to the variance in the intra-personal conflict factor of work-related stress was rejected in the four significant models presented. Belief systems, when paired with hierarchy of authority, system of procedures, impersonality, and technical competency dimensions of bureaucratization, was a significant predictor of the intrapersonal conflict factor. In addition, it was the best predictor, according to the standardized beta weights, in two of the four significant models.

TABLE XV

REGRESSION EQUATION SHOWING THE EFFECTS OF BUREAU-
CRATIC STRUCTURE, BELIEF SYSTEMS, AND INTERACTION
TERM ON INTRAPERSONAL CONFLICT FACTOR

Model	R	R^2	F
(29)			
Bureaucratization (BUR)	.181	.033	2.377
Belief Systems (BEL)			
BUR X BEL			
(30)			
Hierarchy of Authority (HA)	.211	.045	3.272*
Belief Systems (BEL)			
HA X BEL			
(31)			
Division of Labor (DL)	.180	.032	2.331
Belief Systems (BEL)			
DL X BEL			
(32)			
System of Procedures (SP)	.205	.042	3.082*
Belief Systems (BEL)			
SP X BEL			
(33)			
System of Rules (SR)	.178	.032	2.297
Belief Systems (BEL)			
SR X BEL			
(34)			
Impersonality (IM)	.236	.056	4.114*
Belief Systems (BEL)			
IM X BEL			
(35)			
Technical Competency (TC)	.278	.077	5.850*
Belief Systems (BEL)			
TC X BEL			

* $P < .05$

TABLE XVI

SIGNIFICANT MODELS SHOWING EFFECTS OF BUREAUCRATIC
STRUCTURE, BELIEF SYSTEMS, AND INTERACTION TERM
ON INTRAPERSONAL CONFLICT FACTOR

Model	Beta Weight	Sig. T
(30)		
Hierarchy of Authority	.115	1.657
(HA)		
Belief Systems	.149	2.138*
(BEL)		
HA X BEL	.025	.366
(32)		
System of Procedures	.099	1.406
(SP)		
Belief Systems	.150	2.146*
(BEL)		
SP X BEL	-.049	- .720
(34)		
Impersonality	.161	2.319*
(IM)		
Belief Systems	.137	1.976*
(BEL)		
IM X BEL	.009	.134
(35)		
Technical Competency	-.206	-3.039*
(TC)		
Belief Systems	.135	2.003*
(BEL)		
TC X BEL	.056	.841

* P < .05

The null hypothesis stating that the relevant bureau-
cratic structure-belief systems interaction would not
contribute significantly to the variance in intrapersonal
conflict was not rejected in the models shown in Table XVI.

Role Expectations

All seven models displayed in Table XVII attained a .05 level of significance and, therefore, are relevant to this study. The amount of variance explained by the models ranged from .059 to .132.

It was hypothesized that bureaucratic structure would not contribute significantly to the variance in the role expectations factor of work-related stress. According to the results reported in Table XVIII, bureaucratization, hierarchy of authority, system of procedures, system of rules, impersonality, and technical competency contributed significantly to the variance in the role expectations factor of work-related stress and the relevant null hypotheses were rejected. The null hypothesis relating to the division of labor dimension was not rejected.

According to the results reported in Table XVIII, the null hypothesis stating that belief systems would not contribute significantly to the variance in the role expectations factor of work-related stress was rejected in five of the seven models. Belief systems, when paired with bureaucratization and six of its dimensions in seven separate models, was a significant predictor of the role expectations factor in five of the models. However, as indicated by the standardized beta weights, belief systems was the best predictor of the role expectations factor in only two of the seven models.

TABLE XVII

REGRESSION EQUATION SHOWING THE EFFECTS OF BUREAU-
CRATIC STRUCTURE, BELIEF SYSTEMS, AND INTERACTION
TERM ON ROLE EXPECTATIONS FACTOR

Model	R	R^2	F
(36) Bureaucratization (BUR) Belief Systems (BEL) BUR X BEL	.282	.080	6.054*
(37) Hierarchy of Authority (HA) Belief Systems (BEL) HA X BEL	.345	.119	9.473*
(38) Division of Labor (DL) Belief Systems (BEL) DL X BEL	.243	.059	4.400*
(39) System of Procedures (SP) Belief Systems (BEL) SP X BEL	.308	.095	7.311*
(40) System of Rules (SR) Belief Systems (BEL) SR X BEL	.248	.061	4.579*
(41) Impersonality (IM) Belief Systems (BEL) IM X BEL	.308	.095	7.353*
(42) Technical Competency (TC) Belief Systems (BEL) TC X BEL	.363	.132	10.631*

* $P < .05$

TABLE XVIII

SIGNIFICANT MODELS SHOWING EFFECTS OF BUREAUCRATIC
STRUCTURE, BELIEF SYSTEMS, AND INTERACTION TERM
ON ROLE EXPECTATIONS FACTOR

Model	Beta Weight	Sig. T
(36)		
Bureaucratization (BUR)	.191	2.782[*]
Belief Systems (BEL)	.147	2.136[*]
BUR X BEL	-.109	-1.637
(37)		
Hierarchy of Authority (HA)	.288	4.317[*]
Belief Systems (BEL)	.121	1.812
HA X BEL	-.085	-1.304
(38)		
Division of Labor (DL)	.088	1.293
Belief Systems (BEL)	.182	2.663[*]
DL X BEL	-.126	-1.872
(39)		
System of Procedures (SP)	.235	3.450[*]
Belief Systems (BEL)	.125	1.842
SP X BEL	-.101	-1.530
(40)		
System of Rules (SR)	.137	2.012[*]
Belief Systems (BEL)	.179	2.614[*]
SR X BEL	-.097	-1.428
(41)		
Impersonality (IM)	.247	3.647[*]
Belief Systems (BEL)	.129	1.899[*]
IM X BEL	-.033	- .506
(42)		
Technical Competency (TC)	-.309	-4.703[*]
Belief Systems (BEL)	.128	1.959[*]
TC X BEL	.044	.685

* P < .05

The null hypothesis stating that the relevant bureau-
cratic structure-belief systems interaction would not
contribute significantly to the variance in the role
expectations factor of work-related stress was not rejected
in all models reported in Table XVIII.

Double Cross-Validation Procedure

In this study, a double cross-validation technique was
employed by separating the total sample into two smaller
samples based on the participants' positions in the
secondary school in which he/she was employed. One sample
was composed of high school principals and the second
sample was composed of high school assistant principals.

To apply the double cross-validation procedure, a
regression equation was computed for the principals
(screening sample) and used to predict the criterion
variable for the assistant principals (calibration sample).
A correlational coefficient was computed to determine the
relationship between the actual scores and the predicted
scores of the assistant principals (ryy'). This procedure
was subsequently repeated by using the regression equation
computed with the group of assistant principals (screening
sample) and applying it to the group of principals
(calibration sample).

According to Huck, Cormier, and Bounds (1974), a high
correlation which is significantly different than zero
indicates that the reqression equation, obtained with one

group and applied to the other, is appropriate for similar, combined samples of assistant principals and principals in large school districts. In the case of this study, two significant ryy's for a particular model indicates that it is appropriate to use the equation computed with the combined sample.

If neither ryy' is significant or if one ryy' is significant and the other is not, the regression equation would not be appropriately applied to similar combined samples of assistant principals and principals from large school districts. In these cases, the regression equation must be analyzed for each group separately. When the regression model for assistant principals and principals is significantly different than zero, it would be appropriate to analyze it and generalize the results back to the relevant group.

According to the results reported in Table XIX, it is appropriate to generalize four of the 26 models back to the combined principal-assistant principal group, because both of the four pairs of correlation coefficients (ryy') tained significance. These four models: model 23, model 35, model 37, and model 42; were reported and discussed in the previous section. The remaining 22 models must be analyzed by sub-groups and were organized around the six dependent variables.

TABLE XIX

A DOUBLE CROSS-VALIDATION OF SIGNIFICANT MODELS
USING TWO GROUPS OF ADMINISTRATORS:
PRINCIPALS AND ASSISTANT PRINCIPALS

Model	Screening Sample	Actual R^2	P	Calibration Sample	ryy'	P
(1) Dependent: Work-Related Stress	Principals	.141	.002*	Asst. Princ.	.053	>.05
	Asst. Prin.	.048	.139	Princ.	.067	>.05
Bureaucratization (BUR)						
Belief Systems (BEL)						
BUR X BEL						
(2) Dependent: Work-Related Stress	Principals	.155	.001*	Asst. Princ.	.149	>.05
	Asst. Prin.	.085	.018*	Princ.	.191	>.05
Hierarchy of Authority (HA)						
Belief Systems (BEL)						
HA X BEL						
(3) Dependent: Work-Related Stress	Principals	.154	.001*	Asst. Princ.	.028	>.05
	Asst. Prin.	.022	.485	Princ.	.147	>.05
Division of Labor (DL)						
Belief Systems (BEL)						
DL X BEL						

* P < .05; # = significant pair

TABLE XIX (Continued)

Model	Screening Sample	Actual R^2	P	Calibra- tion Sample	ryy'	P
(4) Dependent: Work- Related	Principals	.130	.004*	Asst. Princ.	.096	>.05
Stress	Asst. Prin.	.066	.052	Princ.	.191	>.05
System of Procedures (SP)						
Belief Systems (BEL)						
SP X BEL						
(6) Dependent: Work- Related	Principals	.140	.003*	Asst. Princ.	.112	>.05
Stress	Asst. Prin.	.086	.018*	Princ.	.008	>.05
Impersonality (IM)						
Belief Systems (BEL)						
IM X BEL						
(7) Dependent: Work- Related	Principals	.197	.000*	Asst. Princ.	.173	>.05
Stress	Asst. Prin.	.037	.235	Princ.	.414	<.05
Technical Competence (TC)						
Belief Systems (BEL)						
TC X BEL						

* P < .05; # = significant pair

TABLE XIX (Continued)

Model	Screening Sample	Actual R^2	P	Calibration Sample	ryy'	P

(11)
Dependent:
  Admin-
  istrative
  Constraints
System of
Procedures
  (SP)
Belief Systems
  (BEL)
SP X BEL
	Principals
	
	Asst. Prin.
		.122
		
		.064
			.006*
			
			.060
				Asst.
				Prin.
				
				Prin.
					.013
					
					.125
						>.05
						
						>.05

(17)
Dependent:
  Admin-
  Respon-
  sibilities
Division of
  Labor
  (DL)
Belief Systems
  (BEL)
DL X BEL
	Principals
	
	Asst. Prin.
		.074
		
		.030
			.065
			
			.335
				Asst.
				Prin.
				
				Prin.
					.096
					
					.161
						>.05
						
						>.05

(22)
Dependent:
  Interper-
  sonal Rela-
  tions
Bureaucratiza-
  tion (BUR)
Belief Systems
  (BEL)
BUR X BEL
	Principals
	
	Asst. Prin.
		.113
		
		.083
			.010*
			
			.021*
				Asst.
				Prin.
				
				Prin.
					.099
					
					.106
						>.05
						
						>.05

(23)
Dependent:
  Interper-
  sonal
  Relations
Hierarchy of
  Authority (HA)
Belief Systems
  (BEL)
HA X BEL
	Principals
	
	Asst. Prin.
		.119
		
		.091
			.007*
			
			.013*
				Asst.
				Prin.
				
				Prin.
					.218
					
					.213
						<.05[#]
						
						<.05[#]

* P < .05; # = significant pair

TABLE XIX (Continued)

Model	Screening Sample	Actual R^2	P	Calibration Sample	ryy'	P
(24) Dependent: Interpersonal	Principals	.131	.004*	Asst. Prin.	.115	>.05
Relations	Asst. Prin.	.026	.393	Prin.	.270	<.05*
Division of Labor (DL)						
Belief Systems (BEL)						
DL X BEL						
(25) pendent: Interpersonal	Principals	.107	.013*	Asst. Princ.	.152	>.05
Relations	Asst. Prin.	.062	.066	Prin.	.216	<.05*
System of Procedures (SP)						
Belief Systems (BEL)						
SP X BEL						
(26) Dependent: Interpersonal	Principals	.114	.010*	Asst. Prin.	.095	>.05
Relations	Asst. Prin.	.059	.079	Prin.	.180	>.05
System of Rules (SR)						
Belief Systems (BEL)						
SR X BEL						
(27) Dependent: Interpersonal	Principals	.121	.007*	Asst. Prin.	.165	>.05
Relations	Asst. Prin.	.087	.017*	Prin.	.150	>.05
Impersonality (IM)						
Belief Systems (BEL)						
IM X BEL						

* P < .05; # = significant pair

TABLE XIX (Continued)

Model	Screening Sample	Actual R^2	P	Calibration Sample	ryy'	P
(28) Dependent: Interpersonal Relations	Principals	.139	.003*	Asst. Prin.	.146	>.05
Technical Competence (TC) Belief Systems (BEL) TC X BEL	Asst. Prin.	.035	.255	Prin.	.340	<.05*
(30) Dependent: Intrapersonal Conflicts	Principals	.153	.001*	Asst. Prin.	.138	>.05
Hierarchy of Authority (HA) Belief Systems (BEL) HA X BEL	Asst. Prin.	.055	.094	Prin.	.215	<.05*
(32) Dependent: Intrapersonal Conflicts	Principals	.109	.012*	Asst. Prin.	.097	>.05
System of Procedures (SP) Belief Systems (BEL) SP X BEL	Asst. Prin.	.050	.126	Prin.	.184	>.05
(34) Dependent: Intrapersonal Conflicts	Principals	.108	.013*	Asst. Prin.	.121	>.05
Impersonaltiy (IM) Belief Systems (BEL) . X BEL	Asst. Prin.	.093	.012*	Prin.	.130	>.05

* P < .05; # = significant pair

TABLE XIX (Continued)

Model	Screening Sample	Actual R^2	P	Calibration Sample	ryy'	P
(35) Dependent: Intraper- sonal	Principals	.207	.000*	Asst. Prin.	.208	<.05#
Conflicts Technical Competence (TC) Belief Systems (BEL) TC X BEL	Asst. Prin.	.048	.137	Prin.	.208	<.05#
(36) pendent: Role Expec-	Principals	.187	.000*	Asst. Prin.	.089	>.05
tations Bureaucrati- zation (BUR) Belief Systems (BEL) BUR X BEL	Asst. Prin.	.062	.065	Prin.	.218	<.05*
(37) Dependent: Role Expec-	Principals	.230	.000*	Asst. Prin.	.187	<.05#
tations Hierarchy of Authority (HA) Belief Systems (BEL) HA X BEL	Asst. Prin.	.126	.002*	Prin.	.267	<.05#
(38) Dependent: Role Expec-	Principals	.192	.000*	Asst. Prin.	.040	>.05
tations Division of Labor (DL) Belief Systems (BEL) DL X BEL·	Asst. Prin.	.030	.337	Prin.	.191	>.05

* P < .05; # = significant pair

TABLE XIX (Concluded)

Model	Screening Sample	Actual R^2	P	Calibration Sample	rry'	P
(39) Dependent: Role Expectations	Principals	.191	.000*	Asst. Prin.	.116	>.05
	Asst. Prin.	.092	.012	Prin.	.245	<.05*
System of Procedures (SP) Belief Systems (BEL) SP X BEL						
(40) Dependent: Role Expectations	Principals	.182	.000*	Asst. Prin.	.062	>.05
	Asst. Prin.	.029	.347	Prin.	.215	<.05*
System of Rules (SR) Belief Systems (BEL) SR X BEL						
(41) Dependent: Role Expectations	Principals	.212	.000*	Asst. Prin.	.129	>.05
	Asst. Prin.	.064	.058	Prin.	.302	<.05*
Impersonality (IM) Belief Systems (BEL) IM X BEL						
(42) Dependent: Role Expectations	Principals	.281	.000*	Asst. Prin.	.185	<.05#
	Asst. Prin.	.105	.006	Prin.	.388	<.05#
Technical Competence (TC) Belief Systems (BEL) TC X BEL						

* P < .05; # = significant pair

Work-Related Stress

According to the results in Table XIX, all six models were significantly greater than zero for the principal subgroup while only two of the models were significant for the assistant principal group. Each of the models is discussed in the paragraphs which follow.

For principals, in the bureaucratization, belief systems and interaction term model (model1), only belief systems contribute significantly to the variance in work-related stress (see Table XX). The model itself was not significantly different from zero for assistant principals.

The hierarchy of authority, belief systems and interaction term model (model 2), was significant for both principal and assistant principal subgroups. According to Table XX, hierarchy of authority contributed significantly to work-related stress for assistant principals but not for principals. On the other hand, belief systems was a significant contribute for principals but not for their counterparts. The interaction term did not contribute significantly to work-related stress for either group.

For principals, in the division of labor, belief systems and interaction term model (model 3), only belief systems contributed significantly to the variance in work-related stress (see Table XX). The model itself was not significantly different from zero for the assistant principal group (see Table XIX).

TABLE XX

REGRESSION MODELS OF WORK-RELATED STRESS FOR TWO
SAMPLES: PRINCIPALS AND ASSISTANT PRINCIPALS

Model	Princs.' B Weight	Sig. T	Asst. Prins.' B Weight	Sig. T
(1)				
Bureaucrati- zation (BUR)	-.051	-0.512		
Belief Systems (BEL)	.386	3.887*		
BUR X BEL	.095	0.967		
(2)				
Hierarchy of Authority (HA)	.141	1.433	.287	3.060*
lief Systems (BEL)	.374	3.689*	.006	0.062
HA X BEL	.125	1.219	.018	0.850
(3)				
Division of Labor (DL)	-.039	-0.389		
Belief Systems (BEL)	.373	3.900*		
DL X BEL	.146	1.480		
(4)				
System of Procedures (SP)	.040	0.393		
Belief Systems (BEL)	.353	3.417*		
SP X BEL	.018	0.173		
(6)				
personality (IM)	.089	0.883	.250	2.725*
Belief Systems (BEL)	.306	2.848*	-.009	-0.093
IM X BEL	-.065	-0.627	.136	1.401
(7)				
Technical Competence (TC)	-.271	-2.768*		
Belief Systems (BEL)	.283	2.795*		
TC X BEL				

* P < .05

In the system of procedures, belief sytems and inter-
action term model (model 4), only belief systems contributed
significantly to the variance in work-related stress for
the principals (see Table XX). For assistant principals,
the model itself was not significantly different from
zero (see Table XIX).

The impersonality, belief systems and interaction term
model (model 6), was significant for both principal and
assistant principal subgroups. Acording to Table XX,
impersonality, an element of bureaucratic structure,
contributed significantly to work-related stress for the
assistant principals but not for principals. On the other
hand, belief systems was a significant contributor for
principals but not for assistant principals. The inter-
action term did not contribute significantly to work-related
stress for either group.

For principals, in the technical competency, belief
systems and interaction model (model 7), both technical
competence and belief systems contributed significantly to
the variance in work-related stress (see Table XX). The
model itself, for assistant principals, was not signifi-
cantly different from zero

Administrative Constraints

According to the results in Table XIX, only one model
was significantly greater than zero for the principal sub-
group (model 11). The model is discussed below.

For principals, in the system of procedures, belief systems and interaction term model (model 11), only belief systems contributed significantly to the variance in work-related stress (see Table XXI). The model itself was not significantly different from zero for assistant principals (see Table XIX).

TABLE XXI

REGRESSION MODELS OF ADMINISTRATIVE CONSTRAINTS
FACTOR OF WORK-RELATED STRESS FOR TWO SAMPLES:
PRINCIPALS AND ASSISTANT PRINCIPALS

Model	Princs.' B Weight	Sig. T	Asst. Princ. B Weight	Sig. T
(11) System of Procedures (SP)	.091	0.895		
Belief Systems (BEL)	.317	3.061*		
SP X BEL	.014	0.137		

* P < .05

Administrative Responsibility

According to the results reported in Table XIX, the division of labor, belief systems, and interaction term

model was not significantly greater than zero for either

the principal or assistant principal samples (model 17).

Thus, the model will not be discussed further.

Interpersonal Relations

Results reported in Table XIX indicate that all seven

models were significantly greater than zero for the princi-

pal sample (models 22, 23, 24, 25, 26, 27, and 28) while

only three of the models were significant for the assistant

principal group. Model 23 is not discussed here because

it was analyzed in the previous section and determined to

be appropriately applied to a combined principal-assistant

principal group. Each of the remaining models is discussed

in the paragraphs that follow.

The bureaucratization, belief systems and interaction

term model (model 22), was significant for both principal

and assistant principal subgroups. According to Table

XXII, bureaucratization contributed significantly to work-

related stress for assistant principals but not for the

principals. However, belief systems was a significant

contributor for principals but not for assistant principals.

The interaction term did not contribute significantly to

work-related stress for either group.

For principals, in the division of labor, belief

systems and interaction term model (model 24), only belief

systems contributed significantly to the variance in work-

related stress (see Table XXII). For assistant principals,

TABLE XXII

REGRESSION MODELS OF INTERPERSONAL RELATIONS FACTOR
OF WORK-RELATED STRESS FOR TWO SAMPLES:
PRINCIPALS AND ASSISTANT PRINCIPALS

Model	Princs.' B Weight	Sig. T	Asst. Princs.' B Weight	Sig. T
(22)				
Bureaucratiza- tion (BUR)	-.061	-0.604	.232	2.439*
Belief Systems (BEL)	.349	3.458*	.065	0.685
BUR X BEL	.055	0.549	.081	0.855
(24)				
Division of Labor (DL)	-.070	-0.698		
Belief Systems (BEL)	.342	3.529*		
DL X BEL	.126	1.255		
(25)				
System of Procedures (SP)	.019	0.190		
Belief Systems (BEL)	.311	2.979*		
SP X BEL	-.030	-0.290		
(26)				
System of Rules (SR)	-.095	-0.931		
Belief Systems (BEL)	.351	3.442*		
SR X BEL	-.002	-0.023		
(27)				
Impersonality (IM)	.092	0.898	.233	2.438*
Belief Systems (BEL)	.264	2.431*	.064	0.653
IM X BEL	-.086	-0.819	.129	1.334
(28)				
Technical Compe- tence (TC)	-.185	-1.821		
Belief Systems (BEL)	.269	2.563*		
TC X BEL	.018	0.175		

* P < .05

the model itself was not significantly different from zero (see Table XIX).

In the system of procedures, belief systems and interaction term model (model 25), only belief systems contributed significantly to the variance in work-related stress for the principal subgroup (see Table XXII). For assistant principals, the model itself was not significantly different from zero (see Table XIX).

For principals, in the system of rules, belief systems and interaction term model (model 26), only belief systems contributed significantly to the variance in work-related stress (see Table XXII). The model itself was not significantly different from zero for the assistant principal group.

The impersonality, belief systems and interaction term model (model 27), was significant for both principal and assistant principal subgroups. According to Table XXII, impersonality contributed significantly to work-related stress for assistant principals but not for principals. On the other hand, belief systems was a significant contributor for principals but not for assistant principals. The interaction term did not contribute significantly to work-related stress for either subgroup.

For principals, in the technical competence, belief systems and interaction term model (model 28), only belief systems contributed significantly to the variance in work-

related stress (see Table XXII). For assistant principals, the model itself was not significantly different from zero.

Intrapersonal Conflict

According to results reported in Table XIX, all three models were significantly different from zero for the principal subgroup (models 30, 32, and 34), while only one model was significant for the assistant principal subgroup (model 34). Each of the models is discussed below.

For principals, in the hierarchy of authority, belief systems and interaction term model (model 30), both belief systems and the interaction term contributed significantly to the variance in work-related stress (see Table XXIII). Of the two, however, belief systems was the greater contributor to the variance in work-related stress. The model itself was not significantly different from zero for the assistant principal subgroup (see Table XIX).

TABLE XXIII

REGRESSION MODELS OF INTRAPERSONAL CONFLICT FACTOR
OF WORK-RELATED STRESS FOR TWO SAMPLES:
PRINCIPALS AND ASSISTANT PRINCIPALS

Model	Princs.' B Weight	Sig. T	Asst. Princs.' B Weight	Sig. T
(30)				
Hierarchy of Authority (HA)	.138	1.405		
Belief Systems (BEL)	.368	3.626*		
HA X BEL	.216	2.103*		
(32)				
System of Procedures (SP)	.048	0.469		
Belief Systems (BEL)	.327	3.130*		
SP X BEL	.065	0.629		
(34)				
Impersonality (IM)	.051	0.491	.277	3.039*
Belief Systems (BEL)	.286	2.615*	.018	0.186
IM X BEL	-.053	-0.498	.091	0.945

* P < .05

In the system of procedures, belief systems and inter-action term model (model 32), only the belief systems contributed to the variance in work-related stress for the sample of principals (see Table XXIII). For assistant principals, the model itself was not significantly different from zero.

The impersonality, belief systems and interaction term model (model 34), was significant for both principal and assistant principal subgroups. According to Table XXIII, impersonality contributed significantly to work-related stress for assistant principals but not for principals. On the other hand, belief systems was a significant contributor for principals but not for assistant principals. The interaction term did not contribute significantly to work-related stress for either group.

Role Expectations

As reported in Table XIX, all seven models were significantly different from zero for the principal subgroup. Models 37 and 42 are not discussed here since they were analyzed in the previous section and determined to be appropriately applied to a combined principal-assistant principal group. Each of the remaining models is discussed in the paragraphs that follow.

For principals, in the bureaucratization, belief systems and interaction term model (model 36), only belief systems contributed significantly to the variance in work-related stress (see Table XXIV). The model itself was not significant for the assistant principal sample.

In the division of labor, belief systems and interaction term model (model 38), belief systems again significantly contributed to the variance in work-related stress

for the principal sample. For assistant principals, the model itself was not significant.

In the system of procedures, belief systems and interaction term model (model 39), only belief systems contributed significantly to the variance in work-related stress for principals (see Table XXIV). The model itself was not significant for the assistant principal sample.

For principals, in the system of rules, belief systems and interaction term (model 40), only belief systems contributed significantly to the variance in work-related stress (see Table XXIV). The model itself was not significant for the assistant principal group.

Finally, for principals, in the impersonality, belief systems and interaction term model (model 41), both impersonality and belief systems contributed significantly to the variance in work-related stress. Belief systems, however, continued to be the greater contributor (see Table XXIV). For assistant principals, the model itself was not significantly different from zero (see Table XIX).

TABLE XXIV

REGRESSION MODELS OF ROLE EXPECTATIONS FACTOR
OF WORK-RELATED STRESS FOR TWO SAMPLES:
PRINCIPALS AND ASSISTANT PRINCIPALS

Model	Princs.' B Weight	Sig. T	Asst. Princs.' B Weight	Sig. T
(36) Bureaucrati- zation (BUR)	.136	1.402		
Belief Systems (BEL)	.370	3.831*		
BUR X BEL	-.034	-0.356		
(38) Division of Labor (DL)	.160	1.642		
Belief Systems (BEL)	.390	4.171*		
DL X BEL	.006	0.058		
(39) System of Pro- cedures (SP)	.162	1.659		
Belief Systems (BEL)	.368	3.692*		
SP X BEL	.011	0.114		
(40) System of Rules (SR)	.071	0.727		
Belief Systems (BEL)	.401	4.093*		
SR X BEL	-.093	-0.980		
(41) Impersonality (IM)	.222	2.291*		
Belief Systems (BEL)	.359	3.499*		
IM X BEL	.058	0.582		

* P < .05

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This chapter is divided into four parts. A summary and discussion of the study's results comprises the first part; theoretical and practical implications of the study are discussed in part two; recommendations for further research are presented in part three; and some concluding remarks are made in the fourth or final selction.

Summary and Discussion
of Conclusions

This study focused on the contributions of bureaucratic structure, belief systems, and the interaction of these variables to work-related stress. Bureaucratization and six of its dimensions (hierarchy of authority, division of labor, system of procedures, system of rules, impersonality, and technical competence), belief systems, and the interaction of these variables served as the independent variables. Work-related stress and five of its factors (administrative constraints, administrative responsibility, interpersonal relations, intrapersonal conflict, and role expectations) served as the dependent variables.

A standard multiple regression technique was used to test three major hypotheses and seven subhypotheses. In addition, a double cross-validation procedure was used to examine the predictive potential of equations that were developed for the study.

Consequently, 42 multiple regression models were developed to determine the contributions of each independent variable to each dependent variable. This effort revealed that only 26 of the 42 models were significantly different from zero and, therefore, relevant to the present study.

A double cross-validation procedure was applied to the 26 significant models in order to determine whether or not they would be successful in predicting the variance in the dependent variables with a new, but similar, sample of secondary school principals and assistant principals. Only four of the 26 models achieved this status and could, therefore, appropriately be used with the total combined sample. The remaining 22 models required analysis based on group membership. That is, the total combined group was separated into two groups: one group composed of principals and one group composed of assistant principals.

A summary of all the models developed for this study, and their survival outcome, is given in Table XXV. In general, the surviving models appeared to be much better predictors for the principal group than for the assistant

TABLE XXV

SUMMARY OF MODELS DEVELOPED FOR THIS STUDY

			Double Cross-Validation Procedure Applied		
Dependent Variable	Number Models Develop.	Number Signif. Models	Num. Sig. Models for Comb. Grp.	Num. Sig. Models Principal	Num. Sig. Models A. Princ.
STR	7	6	0	6	2
AC	7	1	0	1	0
AR	7	1	0	0	0
IR	7	7	1	6	2
IC	7	4	1	3	1
RE	7	7	2	5	0
Total	42	26	4	21	5

Legend: STR = Work-Related Stress, AC = Administrative Constraints, AR = Administrative Responsibility, IR = Interpersonal Relations, IC = Intrapersonal Conflict, and RE = Role Expectations

principal group. Moreover, of the 21 models that were significant for the principal group, the belief systems variable was the major contributor to the variance in work-related stress or its factors. On the other hand, the bureaucratization variables were the major contributors

to the variance in work-related stress or its factors for the assistant principal group.

It also should be noted that 15 of the 16 models which were not significantly greater than zero involved three of the study's six dependent variables. That is, only one of seven models was successful in predicting administrative constraints, a dependent variable. Only one of seven models was successful in predicting administrative responsibility, a dependent variable. Only four of seven models were successful in predicting intrapersonal conflict, also a dependent variable.

Contrary to much of the previous research, bureaucratic structure, belief systems and the interaction of these variables did not significantly contribute to the variance in work-related stress or its factors when the secondary school principals and assistant principas were considered as a total group. However, when the total sample was separated into two groups, the contributions of these variables were significant for all but two of the dependent variables, administrative constraints and administrative responsibility and moderately significant for a third dependent variable, intrapersonal conflict.

Consequently, four conclusions were drawn from the results of this study and will serve as the focus for the discussion. First, belief systems were observed to be a consistent contributor to the variance in work-related stress, or its factors, for the principal group, but not

for the assistant principal group; and, bureaucratization and its dimensions were observed to be consistent contributors to the variance in work-related stress, or its factors, for the assistant principal group, but not for the principal group. Second, while 26 of the models were significant predictors of stress, 16 of the bureaucratization and belief systems models were not good predictors of work-related stress. Third, even though 22 of the 26 significant models had to be analyzed by subgroups, four of the models were appropriate for the combined group of principals and assistant principals. Fourth, among the 22 models analyzed by subgroups, only one model contained a significant interaction term. The interaction between belief systems and the hierarchy of authority dimension of bureaucratization was a significant contributor to stress for the principal subgroup, but not for the assistant principal subgroup.

Belief Systems and Bureaucratization

Why would belief systems be an important contributor to work-related stress for principals and not for assistant principals? Further, why would bureaucratic structure be an important contributor to work-related stress for assistant principals but not for principals? After all, the preparation for these roles is identical; that is, both groups must complete the same courses to obtain certification.

Nevertheless, real differences do appear to exist between them which can be used to explain this study's results.

Why belief system was a good predictor of work-related stress for principals and bureaucracy was a good predictor of work-related stress for assistant principals may be explained by examining the differences in the two roles from an historical perspective and by analyzing the roles themselves. The historical development of the two administrative positions basically are different.

According to Sergiovanni, Burlingame, Coombs, and Thurston (1987), the role of head teacher or head master first appeared in the colonies in geographic areas where the student population was of sufficient size to warrant the need for an individual to coordinate school committees and to act as a liason between parents and teachers. Not until the emergence of the superintendency in about the mid-1800's does one find the head teacher assuming the role of site manager. By the 1900's the principals was involved with such matters as instructional improvement, discipline, and acquisition of supplies. By the 1920's the role of the principal basically had been established in American schools as it exists today (p. 283).

With the influx of more and more students in the early years of public schools, and with the additional managerial responsibilities, it became evident that one individual could not personally handle all of the activities that occur in a school. Hence, to help the principal with

administrative responsibilities, the role of the assistant principal evolved in American schools. According to Jacobson, Logsdon, and Wiegman (1973), "By 1900 it had become customary for principals in large cities to select their administrative assistants" (p. 31). The role of assistant principal, then, was created in large school systems to relieve the principal of a burgeoning work load. This creation in itself spawned an additional layer to the school system hierarchy and changed the principalship from supervisor of teachers and staff to supervisor of other supervisors. This meant that principals gained the autonomy to refine the role as they wished by shifting part of their responsibility to administrative assistants and selectively maintaining other areas of responsibility. It also created administrators who were directly supervised by someone in their same building.

Additional differences in the two roles can be explained by contrasting career goals, levels of autonomy, boundaries, and length of time in administration. First, according to Sergiovanni, et al., (1987), while aspiring principals frequently seek the position as a terminal career point or as a stepping stone to the superintendency (pp. 283-285); aspiring assistant principals usually do not regard the position as a terminal career goal, but rather as a step toward the principalship. Second, the principals in this study had been in school administration longer and they usually were older than the assistant principals.

Consequently, the principals may have had the opportunity to "learn the system" and become adept in negotiating bureaucratic structure. In addition, the principal has sufficient autonomy to define the major goals of a school and ways that they might be implemented (pp. 285-287). The assistant principalship, however, is a role which is defined by the principal of the school. That is, the term "principal" is usually understood and perceived to be the chief executive officer of the school. This generally held perception tends to make invisible any other executives that may also work in the school (Panyako and Rorie, 1987, p. 6). Lastly, the principalship influences and is influenced by forces that exist within the building boundaries as well as the district boundaries. The assistant principalship, on the other hand, is usually confined to the building itself with limited direct contact with the central office or indirect contact that has been filtered by the principal.

For the role encumbent who has the opportunity to define his/her role and the role of an assistant principal as well, there is less chance that bureaucracy will be a stressor because that individual has greater control of the bureaucracy. On the other hand, principals with that kind of power also have a greater likelihood of experiencing stress if they are less flexible and more dogmatic than their counterparts. This is true because they have more discretion and less direction.

Assistant principals who have less control over their work contexts experience more stress under highly bureaucratic conditions than less bureaucratic conditions. Reduced structural constraints, that is, a decrease in bureaucracy, allows greater control and, therefore, are associated with less stress. However, because most urban school districts are extremely bureaucratic, the degree of dogmatism among assistant principals is a mute issue. Even though they may or may not have the ability to be flexible, the decisions have been predetermined by the bureaucracy.

A dogmatic belief system was found to be associated with perceptions of work-related stress across both groups; however, it was more pronounced in the principal subgroup. On the other hand, bureaucratic structure was found to be associated with greater perceptions of work-related stress for the assistant principal subgroup. Demographic data collected for this study may provide part of the explanation for this result. Also, it is possible that variables not measured in this study may account for part of this result. Thus, when considering the historical development of the two roles, as well as the nature of the roles themselves, and combined with such factors as longevity in the field of administration, and the differences in autonomy associated with each of the roles, the reasons that belief systems were major contributors to work-related stress for principals and bureaucratic structure was the major contributor to work-related stress for assistant principals become apparent.

Unsuccessful Predictor Models

Why bureaucratic structure and belief systems failed
to be good predictors of some factors of work-related stress
may be explained by the logical patterns of the variables
themselves. That is, 15 of the 16 models that were not
significantly greater than zero involved three of the six
dependent variables in this study: administrative
constraints, administrative responsibility, and intra-
personal conflict.

Bureaucratic structure, belief systems, and the
interaction term did not explain any variance in the
administrative constraints factor of work-related stress
because the administrative constraints which lead to stress
are not influenced one way or another by personal belief
systems or bureaucratic structure. For example, a teacher
who fails to get along with the other teachers or parents
can create a major problem for building administrators.
Neither the bureaucratic structure of the school district
nor the personal belief systems of a principal or assistant
principal would be of much use in resolving the problem.

Similarly, bureaucratic structure, belief systems and
the interaction term did not explain any variance in the
administrative responsibility factor of work-related stress
because administrative responsibility which leads to stress
also is not influenced one way or another by the formal

bureaucratic structure of the school district or the belief
systems of secondary school administrators. For example,
the timely completion of various accreditation reports can
be a problem for some principals and assistant principals.
Yet, neither the school district's organizational structure
nor the individual administrator's belief systems are of
much use in resolving the problem.

Also, bureaucratic structure, belief systems and the
interaction term did not explain any significant variance
in the intrapersonal conflict factor of work-related stress
for three models because intrapersonal conflict is not
influenced by certain specific district bureaucratic struc-
tures (bureaucratization, division of labor, and system of
rules) or the individual belief systems of principals and
assistant principals. That is, for example, bureaucratic
structure and belief systems are of little use in resolving
some forms of intrapersonal conflict such as when a director
informs an administrator to implement controversial board
policies in his/her building or to resolve a parent's
disagreement with a particular board policy.

Many of the most difficult problems encountered by high
school principals and assistant principals cannot be resolved
with rules or regulations or, e. g., hierarchy of authority.
On the other hand, these same difficult problems are not
necessarily exacerbated either by the bureaucratic structure
of the school district or administrators' belief systems.

Successful Predictor Models

Why certain specific elements of bureaucratic structure
and individual belief systems were good predictors of stress
for the combined group of principals and assistant principals
in four of the 26 significant models also may be explained
by the patterns of the variables themselves. That is, four
of the 26 models that were significantly greater than zero
involved three dependent variables: interpersonal relations,
intrapersonal conflict, and role expectations. Further,
these four significant models also involved only three
of the study's independent variables: belief systems, and
the bureaucratic dimensions of hierarchy of authority and
technical competence.

The hierarchy of authority dimension of bureaucracy and
belief systems explained the variance in the interpersonal
relations and role expectations factors of job stress
because the interpersonal relations and role expectations
which lead to stress are influenced in a positive direction
by hierarchy of authority and belief systems. For example,
making decisions that affect the lives of others, such as
when evaluating teachers, may be a problem for some building
administrators. The hierarchy of authority dimension of
bureaucracy is a contributor to stress among principals and
assistant principals because the bureaucratic structure of
the organization places them in a supervisory role which
often involves making evaluative decisions about others.

Also, for example, the administrators' individual belief systems contribute to stress because of the dogmatic nature with which they may view other people and events. That is, less open minded secondary school administrators have higher levels of stress than those secondary school administrators who are more open minded.

The technical competence dimension of bureaucracy explained the variance in inttrapersonal conflict and, also, in the role expectations factor of work-related stress because these variables which lead to stress are negatively influenced by technical competency. For example, districts often adopt new procedures with specific methods for carrying them out. These procedures may require certain skills and knowledge that some of the administrators may not have developed. Technical competence, then, becomes a source of stress to these administrators because even though their role requires them to carry out the procedures, their personal skill and knowledge ill-equips them to fulfill the added requirement to their role. An especially current example of this problem is the degree to which many districts expect their principals and assistant principals to be computer-literate. Although many administrators attempt to develop or increase their knowledge of computers, many do not have the time or opportunity for hands-on practice in using the hardware or the computer software.

Failure of Interaction Term

in Prediction Models

With the exception of one model, which could have been a result of chance alone, the belief systems - bureaucracy interaction term in each of the significant models failed to be a good predictor of work-related stress. This failure may be explained by the work contexts of the principals and assistant principals. That is, even though assistant principals in this study were affected more by organizational bureaucracy than principals and principals were affected more by belief systems than assistant principals, both administrators must work in the same bureaucracy.

Yet, at the same time, belief systems do not moderate the impact of bureaucratic structure on work-related stress. For example, regardless of the role of the administrator, school districts have layers of bureaucracy that must be negotiated in order for certain tasks to be accomplished, tasks such as having to go through the maintenance department to get a broken light fixture repaired or curriculum services to get additional textbooks. Consequently, the belief systems of administrators and the structure of the school district are of little use in resolving the problem of having to go through other people or departments to get certain tasks completed.

Also, at times, bureaucratic structure does not modify the impact of belief systems on work-related stress either. That is, for example, all administrators must handle similar types of situations and follow the same bureaucratic rules established by the organization in the evaluation of teaching staff. One administrator, however, who may be more dogmatic in his/her belief systems, may actually exacerbate the situation by dealing with it in a rigid by-the-book approach. Another administrator, on the other hand, who may be less dogmatic in his/her belief systems, will not exacerbate the situation because he/she tends to be more flexible while following the bureaucratic rules and regulations of the organization. Yet, with both of these administrators, the bureaucratic structure of the organization isn't much use in resolving the outcome of the situation.

Theoretical and Practical Implications

Person-Environment Fit theory, which was the theoretical underpinning for this study, suggests that matiching a person with his/her environment will result in less stress. That is, place the right individual in the right environment and the achieved congruence will result in an harmonious, less stressful work situation. However, in this study, this theory had little genuine applicability.

At the outset of this study, it was thought that much of the bureaucratic structure perceived by administrators would generally increase their perception of work-related stress. At the same time, it was thought that belief 'stems might moderate the degree of stress experienced. That is, according to the person-environment fit theory, a flexible administrator might be expected to experience greater stress in a bureaucratic organization while a dogmatic administrator would experience less stress. This study would indicate that belief systems do not moderate the influence of bureaucracy on stress. Rather, it is the ᵔle that individuals find themselves in that moderates the relationship. That is, principals are not affected by bureaucratic constraints; assistant principals are affected by bureaucratic constraints. In addition, belief systems do not moderate the perception of bureaucratic structure. The interesting, but unhypothesized finding uncovered in this study is that role moderates whether or not bureaucratic structure is perceived as a constraint.

Thus, the theoretical implications of this study are its unhypothesized findings of how bureaucratic structure and belief systems are moderated by the role in which the individual may find him/herself and how the role of the administrator affects perceptions of work-related stress. That is, belief systems affect principals' perceptions of

work-related stress, but not assistant principals' perceptions of work-related stress. On the other hand, bureaucratic structure affects assistant principals' perceptions of work-related stress.

The practical implications of this study concern the impact of belief systems on organizational members who occupy somewhat autonomous roles and the impact of bureaucratic structure on organizational members who do not occupy autonomous roles. That is, the findings of this study may provide direction to school districts regarding how they might decrease the perceptions of work-related stress among principals and assistant principals by examining how they structure their school districts and by how they go about employing certain individuals to fill specific roles in the organization.

Recommendations

As a result of this study, the following recommendations are made. This study should be replicated, but conducted with either principals or assistant principals. The double cross-validation procedure indicates that the two groups of administrators should not be combined because of the moderating effect of their roles. This study should be expanded to include smaller school districts throughout the United States. Elementary, middle, and junior high school principals and assistant principals should be

included in a similar study. Also, the researcher needs
to seriously consider administering a lengthy survey because
it may ultimately affect the respondents' return-rate. For
example, in this study, one respondent's notation on the
ck of his survey read, "This was almost too much to get
through." Further, two of the instruments used in this
study possibly should be used in the future with caution.
That is, since Rokeach's Dogmatism Scale, Form E, and Hall's
Organizational Inventory have not been renormed in many
years, the results obtained from these instruments possibly
may not be an accurate estimate of that which they are
intended to measure.

In addition, research needs to be conducted to further
clarify the influence of belief systems on individuals who
remain in formal organizations over long periods of time.
That is, longitudinal studies should be conducted to deter-
mine the relationship between tenur in an organization and
an increase or decrease in members' dogmatism. These
research efforts also should be focused on understanding
the relationship between belief systems and organizational
roles, as well as, the relationship between belief systems
and organizational structure.

Also, it should be recognized that changing the struc-
ture, not the content, of belief systems is a protracted
effort which may or may not be successful. Nevertheless,
within organizations, change can be attempted by first
altering the culture of the organization. Changing the

culture of an organization often requires extensive organizational restructuring.

Decreasing the impact of bureaucratic structure on individuals who occupy less autonomous roles may be achieved by the organization adopting a team approach to administering schools. That is, team management tends to de-emphasize certain bureaucratic dimensions of organizational structure such as hierarchy of authority or impersonality. Other activities for reducing the impact of the organization's structure on an individual administrator could include introducing more consistent duties to alleviate job fragmentation. For example, by having an administrator follow an entering ninth grade class of students through their years in high school instead of trying to work with a new class of students each year could reduce some of the work fragmentation that is experienced by both principals and assistant principals.

Finally, people involved in the professional development and preparation of principals and assistant principals should provide information that takes into account the real differences between the role of principal and the role of assistant principal. In addition, such preparation should include information specifically for principals on how to effectively work with assistant principals in order that the assistant principals may learn to cope with the bureaucratic structure of the school district.

Concluding Remarks

Stress is, and probably will continue to be, a
phenomenon associated with work since the total absence
of stress results in death (Selye, 1956). Because working
is an integral part of the American way-of-life, learning
to deal with the stress that may be part of the work
environment is a matter of psychological and physical
necessity in order to maintain good health. Recognizing
that some of the stress may be "self-generated" as a result
of one's belief systems, or that it may be "other-generated"
as a result of the impact of the organizational structure
on individuals who occupy the various roles in that
structure may be a first step. Alleviating the potentially
damaging effects of work-related stress is a responsibility
that ultimately must be shared equally between organizations
and the individuals who work in them.

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APPENDIX A

CORRESPONDENCE RELATED TO THE STUDY

UNIVERSITY AT

ALBANY

STATE UNIVERSITY OF NEW YORK

March 7, 1988

Ms. Terri L. Miller

Oklahoma City, OK   73107

Dear Ms. Miller:

You have my permission to use the bureaucrat scales. A copy is enclosed

Good luck with your research.   I would like to learn of your results

Sincerely,

Richard H. Hall
Professor of Sociology

RHH·ep
Enclosure

Ms Terri L Miller

Oklahoma City, Oklahoma 73107

February 24, 1988

Dr. Richard II. Hall
Department of Sociology
S U. N. Y.
Room SS - 340
1400 Washington Avenue
Albany, New York 12222

.

Dear Dr. Hall,

I am a graduate student in the Department of Educational Administration and Higher
Education at Oklahoma State University conducting research to fulfill requirements
for the Ed.D. degree. The research problem is concerned with an investigation of
school bureaucracy.

After reviewing several instruments, I have concluded the measurement of organiza-
tional bureaucracy which you developed is the most suited measurement for my study
Therefore, the purpose of this letter is to request written permission to use the
instrument you developed.

Your permission for use of the instrument will be much appreciated. I shall be happy
to provide you with a copy of my findings. Thank you for your consideration of my
request.

                                        Sincerely,

                                        (Ms) Terri L. Miller

Ms Terri L Miller

Oklahoma City, Oklahoma   73107

February 24, 1988

Dr Milton Rokeach
2832 Medill Place
Los Angeles, California   90064

Dear Dr Rokeach,

I am a graduate student in the Department of Educational Administration and Higher
Education at Oklahoma State University conducting research to fulfill requirements
for the Ed D. degree   The research problem is concerned with individual belief
systems.

After reviewing several instruments, I have concluded the Dogmatism Scale which
you developed is the most suited measurement for my study   Therefore, the purpose
of this letter is to request written permission to use the Dogmatism Scale, Form E
that you developed

Your permission for use of the scale will be much appreciated   I shall be happy
to provide you with a copy of my findings   Thank you for your consideration of my
request

                                        Very truly yours,

                                        Terri L Miller

                                        (Ms) Terri L Miller

2/27/88
Permission granted, Good luck!

Milton Rokeach

Ms Terri L Miller

Oklahoma City, Oklahoma 73107

February 24, 1988

Dr. Milton Rokeach
2832 Medill Place
Los Angeles, California 90064

Dear Dr. Rokeach,

I am a graduate student in the Department of Educational Administration and Higher
Education at Oklahoma State University conducting research to fulfill requirements
for the Ed.D. degree. The research problem is concerned with individual belief
systems.

After reviewing several instruments, I have concluded the Dogmatism Scale which
you developed is the most suited measurement for my study. Therefore, the purpose
of this letter is to request written permission to use the Dogmatism Scale, Form E
that you developed.

Your permission for use of the scale will be much appreciated   I shall be happy
to provide you with a copy of my findings. Thank you for your consideration of my
request.

Very truly yours,

(Ms) Terri L. Miller

Ms Terri L Miller

Oklahoma City, Oklahoma
73107

April 21, 1988

Dr. Boyd Swent
P O Box 38
Pendleton, Oregon 97801

Dear Dr. Swent,

I am a graduate student in the Department of Educational Administration and
Higher Education at Oklahoma State University and I am currently conducting
research to fulfill requirements for the Ed.D. degree   As part of this re-
search, a survey of perceived stress among urban school administrators will
be conducted.

After reviewing several instruments, I have concluded that the instrument you
developed in 1977 is most suited to my study   Therefore, the purpose of this
letter is to request written permission to use the 35 item Administrative
Stress Index instrument developed by you while at the University of Oregon.

In addition, I would like to use the following headings for the 5-point
Likert-type scale instead of the three headings used in your original study
(1) never bothers me, (2) seldom bothers me, (3) occasionally bothers me,
(4) frequently bothers me, and (5) always bothers me   I believe you alluded
to such modification in the recommendations section of your study (page 148)

Your permission for use of the Administrative Stress Index will be much
appreciated   I shall be happy to provide you with a copy of my findings.
Thank you for your consideration of my request.

                                          Very truly yours,

                                          Terri L. Miller

                                          (Ms) Terri L. Miller

Education Service District

412 S. E. Dorion   Box 38   Pendleton, Oregon 97801   Phone 276-6616

Boyd Swent, Superintendent

May 3, 1988

Mrs. Terri Miller

Oklahoma City, OK 73107

Dear Ms. Miller

Thank you for your letter of April 21, 1988, regarding use of the Administrative Stress Index instrument. You have my permission to use the instrument and to modify it as you proposed.

Please forward to me a copy of your findings upon completion of your study. Best wishes on your pursuit of your advanced degree and your research. If I can be of further assistance, please feel free to contact me.

Sincerely,

Boyd Swent, Superintendent
Education Service District

BS/bjw

APPENDIX B

COPY OF COVER LETTER AND INSTRUMENT

USED IN THE STUDY

USU
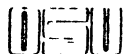
Oklahoma State University

January 31 1990

Dear Administrator

I am conducting a study of what I believe to be an important concern among high school administrators employed in the public schools today The purpose of this national study is to assess the perceptions of work-related stress among high school administrators Since you are a high school administrator in one of the largest school districts in the U S your participation in the study is essential

The enclosed survey has four parts and should take approximately twenty-five minutes to complete Your cooperation in completing and returning the survey will be appreciated Please return the survey no later than February 28 1990 A stamped self-addressed envelope is included for your convenience

In order to protect survey respondents data will be used only in statistical form Although no names are requested or will be used you have been assigned an identification number to allow for a second mailout if needed In accordance with the Protection of Human Subjects policy and regulations, your participation in this study is voluntary Return of this survey will serve as your consent to participate in the study

Sincerely,

Terri L Miller

Terri L Miller
Research Associate

Department of Educational
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CENTENNIAL
1890 1990

Celebrating the Past   Preparing for the Future

PART I

DIRECTIONS   Please complete the demographic information requested regarding you
            your school and the school district in which you work

A   Your position   _____   Principal

                     _____   Assistant/Vice Principal

B   Your gender   _____   Male

                     _____   Female

C   Your age   _____

D   Years in present position   _____

E   Years in administration   _____

F   Hours worked per week   _____

G   Your SCHOOL enrollment   _____

H   Your DISTRICT enrollment   _____

I   Type of community   _____   Urban

                         _____   Suburban

                         _____   Rural

J   Grade configuration of your school   _____   7 - 12

                                         _____   8 - 12

                                         _____   9 - 12

                                         _____   10 - 12

                                         _____   11 - 12

                                         _____   other, please specify

                                                      _____

PART II

DIRECTIONS   Please CIRCLE the response that indicates how much each situation
             bothers you

		Never	Rarely	Some-times	Often	Always
1	Being interrupted frequently by telephone calls	1	2	3	4	5
2	Supervising and coordinating the tasks of many people	1	2	3	4	5
3	Feeling staff members do not understand my goals expectations	1	2	3	4	5
4	Feeling that I am not fully qualified to handle my job	1	2	3	4	5
5	Knowing I cannot get information needed to carry out my job properly	1	2	3	4	5
6	Trying to resolve differences between/ among students	1	2	3	4	5
7	Thinking that I will not be able to satisfy the conflicting demands of those who have authority over me	1	2	3	4	5
8	Feeling not enough is expected of me by my superiors	1	2	3	4	5
9	Having my work frequently interrupted by staff members who want to talk	1	2	3	4	5
10	Imposing excessively high expectations on myself	1	2	3	4	5
11	Feeling pressure for better job performance over and above what I think is reasonable	1	2	3	4	5
12	Writing memos letters and other communication	1	2	3	4	5
13	Trying to resolve differences with my superiors	1	2	3	4	5
14	Speaking in front of groups	1	2	3	4	5
15	Attempting to meet social expectations	1	2	3	4	5

		Never	Rarely	Some-times	Often	Always
16	Not knowing what my supervisor thinks of me or how he/she evaluates my performance	1	2	3	4	5
17	Having to make decisions that affect the lives of individual people that I know	1	2	3	4	5
18	Feeling I have to participate in school activities outside of the normal working hours at the expense of my personal time	1	2	3	4	5
19	Feeling that I have too much responsi-bility delegated to me by my supervisor	1	2	3	4	5
20	Trying to resolve parent/school conflicts	1	2	3	4	5
21	Preparing and allocating budget resources	1	2	3	4	5
22	Feeling that I have too little authority to carry out responsibilities assigned to me	1	2	3	4	5
23	Handling student discipline problems	1	2	3	4	5
24	Being involved in the collective bargaining process	1	2	3	4	5
25	Evaluating staff members' performance	1	2	3	4	5
26	Feeling that I have too heavy a work load one that I cannot possibly finish during the normal work day	1	2	3	4	5
27	Complying with state federal and organizaional rules and policies	1	2	3	4	5
28	Feeling that the progress on my job is not what it should or could be	1	2	3	4	5
29	Administering the negotiated contract	1	2	3	4	5
30	Being unclear on just what the scope and responsibilities of my job are	1	2	3	4	5
31	Feeling that meetings take up too much time	1	2	3	4	5
32	Trying to complete reports and other paper work on time	1	2	3	4	5

		Never	Rarely	Some- time	Often	Always
33	Trying to resolve differences between/ among staff members	1	2	3	4	5
34	Trying to influence my immediate super- visor's actions and decisions that affect me	1	2	3	4	5
35	Trying to gain public approval and/or financial support for school programs	1	2	3	4	5

PART III

DIRECTIONS   Please mark each statement in the left margin according to how much
               you agree or disagree   The best answer to each statement below is
               your personal opinion   Please mark every one   Write +1 +2 +3
               -1, -2 or -3 depending on how you feel in each case

+1   I agree a little   -1   I disagree a little
+2   I agree on the whole   -2   I disagree on the whole
+3   I agree very much   -3   I disagree very much

_____ 1   The United States and Russia have just about nothing in common

_____ 2   The highest form of government is a democracy and the highest form of
            democracy is a government run by those who are the most intelligent

_____ 3   Even though freedom of speech for all groups is a worthwhile goal it
            is unfortunately necessary to restrict the freedom of certain political
            groups

_____ 4   It is only natural that a person would have a much better acquaintance
            with ideas he/she believes in than ideas he/she opposes

_____ 5   Human beings on their own are helpless and miserable creatures

_____ 6   Fundamentally the world we live in is a pretty lonesome place

_____ 7   Most people just don't give a "damn" for others

_____ 8   I'd like it if I could find someone who would tell me how to solve
            my personal problems

_____ 9   It is only natural for a person to be rather fearful of the future

_____10   There is so much to be done and so little time to do it in

_____11   Once I get wound up in a heated discussion I just can't stop

+1 I agree a little	-1 I disagree a little
+2 I agree on the whole	-2 I disagree on the whole
+3 I agree very much	-3 I disagree very much

_____12   In a discussion I often find it necessary to repeat myself several times to make sure I am being understood

_____13   In a heated discussion I generally become so absorbed in what I am going to say that I forget to listen to what the others are saying

_____14   It is better to be a dead hero than a live coward

_____15   The main thing in life is for a person to want to do something important

_____16   While I don't like to admit this even to myself my secret ambition is to become a great person like Einstein or Beethoven or Shakespeare

_____17   If given a chance I would do something of great benefit to the world

_____18   In the history of mankind there have probably been just a handful of really great thinkers

_____19   There are a number of people I have come to hate because of the things they stand for

_____20   A person who does not believe in some great cause has not really lived

_____21   In this complicated world of ours the only way we can know what s going on is to rely on leaders or experts who can be trusted

_____22   It is only when a person devotes him/herself to an ideal or cause that life becomes meaningful

_____23   Of all the different philosophies which exist in this world there is probably only one which is correct

_____24   To compromise with our political opponents is dangerous because it usually leads to the betrayal of our own side

_____25   When it comes to difference in opinion in religion we must be careful not to compromise with those who believe differently from the way we do

_____26   A person who gets enthusiastic about too many causes is likely to be a pretty "wishy-washy" sort of a person

_____27   In times like these a person must be pretty selfish if he/she considers primarily his/her own happiness

_____28   The worst crime a person could commit is to attack publicly the people who believe in the same thing he/she does

+1   I agree a little   -1   I disagree a little
+2   I agree on the whole   -2   I disagree on the whole
+3   I agree very much   -3   I disagree very much

_____29   In times like these it is often necessary to be more on guard against
          ideas put out by people or groups in one's own camp than by those in
          the opposing camp

_____30   A group which tolerates too much difference of opinion among its own
          members cannot exist for long

_____31   There are two kinds of people in this world   those who are for truth
          and those who are against the truth

_____32   My blood boils whenever a person stubbornly refuses to admit he/she
          is wrong

_____33   A person who thinks primarily of his/her own happiness is beneath
          contempt

_____34   Most of the ideas which get printed nowadays are not worth the paper
          they are printed on

_____35   It is often desirable to reserve judgement about what's going on until
          one has had a chance to hear the opinions of those one respects

_____36   In the long run the best way to live is to pick friends and associates
          whose tastes and beliefs are the same as one s own

_____37   The present is all too often full of unhappiness   It is only the
          future that counts

_____38   If a man/woman is to accomplish his/her mission in life it is sometimes
          necessary to gamble "all or nothing at all "

_____39   Unfortunately a good many people with whom I have discussed important
          social and moral problems don t really understand what's going on

_____40   Most people just don t know what's good for them

PART IV

DIRECTIONS   Please CIRCLE the response that indicates how well each statement
              describes your school DISTRICT organization

		Very Well	Well	Unde-cided	Poorly	Very Poorly
1	I feel that I can act as my own boss on most matters	VW	W	?	P	VP
2	Even small matters have to be referred to some higher up for a final answer	VW	W	?	P	VP
3	One thing people like around this district is the variety of work they get to do	VW	W	?	P	VP
4	The school district has a manual of rules and regulations to be followed	VW	W	?	P	VP
5	Smoking is permitted only in certain designated places	VW	W	?	P	VP
6	Standard procedures are to be followed in almost all situations	VW	W	?	P	VP
7	We are encouraged to cut red tape' in order to get the job done	VW	W	?	P	VP
8	No matter how serious a person's problems are he/she is to be treated the same as everyone else	VW	W	?	P	VP
9	Employees are periodically evaluated to see how well they do their job	VW	W	?	P	VP
10	All the executives have experience qualifying them for the job	VW	W	?	P	VP
11	A person can make his/her own decisions without checking with anyone else	VW	W	?	P	VP
12	I have to check with the boss before I do almost anything	VW	W	?	P	VP
13	Most jobs have something different happening from day to day	VW	W	?	P	VP
14	Employees are expected to follow orders without questioning them	VW	W	?	P	VP
15	There really are no specific rules but the employees understand how they shall act	VW	W	?	P	VP

		Very Well	Well	Unde- cided	Poorly	Very Poorly
16	Red tape is often a problem in getting a job done	VW	W	?	P	VP
17	The school district stresses following the established procedures	VW	W	?	P	VP
18	A person who likes to make his/her own decisions would become discouraged in this district	VW	W	?	P	VP
19	People aren't promoted simply because they have a "pull '	VW	W	?	P	VP
20	Promotions are based on merit in this school district	VW	W	?	P	VP
21	Everyone in the district has one superior to whom he/she regularly reports	VW	W	?	P	VP
22	People can get supplies without clearing it with their superiors	VW	W	?	P	VP
23	People working in this district usually find their jobs to be monotonous	VW	W	?	P	VP
24	The employees are constantly being checked upon for rule violations	VW	W	?	P	VP
25	It seems as though there is a rule for everything in this district	VW	W	?	P	VP
26	Going through the proper channels at all times is constantly stressed	VW	W	?	P	VP
27	Everyone who calls the school district from outside is treated in exactly the same manner	VW	W	?	P	VP
28	The school district is always sponsoring employee get-togethers	VW	W	?	P	VP
29	Many people seem to be hired simply be- cause they are attractive in appearance	VW	W	?	P	VP
30	Some people are kept on the payroll even though they are not good workers	VW	W	?	P	VP
31	There can be little action until a super- visor approves a decision	VW	W	?	P	VP

		Very Well	Well	Unde-cided	Poorly	Very Poorly
32	Only persons in executive positions can decide how a job is to be done	VW	W	?	P	VP
33	We usually work under the same circumstances from day to day	VW	W	?	P	VP
34	Employees are not allowed to leave their working areas without permission	VW	W	?	P	VP
35	Employees are often left to their own judgement as to how to handle most problems	VW	W	?	P	VP
36	We are to follow strict operating procedures at all times	VW	W	?	P	VP
37	A person gets the chance to develop good friends in this district	VW	W	?	P	VP
38	People are to be treated within the rules no matter how serious a problem they may have	VW	W	?	P	VP
39	People in this district are given raises according to how well they are liked rather than how well they do their job	VW	W	?	P	VP
40	In order to get a promotion a person has to demonstrate his/her competence	VW	W	?	P	VP
41	How things are done around this district is left pretty much up to the persons doing the work	VW	W	?	P	VP
42	Everyone has a specific job to do	VW	W	?	P	VP
43	There is something new and different to do almost every day	VW	W	?	P	VP
44	Nothing is said if you come to work late occasionally	VW	W	?	P	VP
45	Most of us are encouraged to use our own judgement in handling everyday situations	VW	W	?	P	VP
46	Whenever we have a problem we are supposed to go to the same person for an answer	VW	W	?	P	VP

		Very Well	Well	Unde- cided	Poorly	Very Poorly
47	Management in this district sticks pretty much to themselves	VW	W	?	P	VP
48	A very friendly atmosphere is evident to everyone who works in this district	VW	W	?	P	VP
49	There is little chance for promotion unless you are in' with the boss	VW	W	?	P	VP
50	There is really no systematic procedure for promotions	VW	W	?	P	VP
51	People in this district get their orders from the same person all the time	VW	W	?	P	VP
52	This school district is characterized by a complex division of labor	VW	W	?	P	VP
53	No two days are ever the same in this job	VW	W	?	P	VP
54	People in this district make their own rules on the job	VW	W	?	P	VP
55	Every employee has a specific function which he/she has to perform	VW	W	?	P	VP
56	At times going through the proper channels becomes more important than getting the work done	VW	W	?	P	VP
57	We are expected to be courteous but reserved at all times	VW	W	?	P	VP
58	No one in this district calls his/her superior by his/her first name	VW	W	?	P	VP
59	Most jobs in this school district involve a variety of different kinds of activities	VW	W	?	P	VP
60	People in this district feel that they are constantly being watched to see that they obey all the rules	VW	W	?	P	VP
61	Any decision I make has to have the boss s approval	VW	W	?	P	VP
62	The school district is really very important	VW	W	?	P	VP

VITA

Terri Louise Miller

Candidate for the Degree of

Doctor of Education

Thesis: PERCEPTION OF WORK-RELATED STRESS AMONG PRINCIPALS AS RELATED TO BELIEF SYSTEMS AND PERCEPTION OF BUREAUCRATIZATION OF SCHOOL DISTRICT

Major Field: Educational Administration

Personal Data: Born January 27, 1946, Oklahoma City, Oklahoma; Native American and Dutch ancestry.

Education: Diploma, Grant H.S., 1964, Oklahoma City, Oklahoma; B.A., English, and M.A., Education, Oklahoma City University, 1970, 1978; Ed.D., Educational Administration, Oklahoma State University, December, 1990, Stillwater, Oklahoma.

Honors: Selected to attend the 10th National Graduate Student Research Seminar in Educational Administration, American Educational Research Association, Division A, San Francisco, California, 1989.

Professional: 1970-1975, EKG Technician, Mercy and St. Anthony's Hospitals, Okla. City, Okla.; 1975-1976, English teacher, McGuinness Catholic H.S., 1976-1977, EMH teacher, Roosevelt Middle School; 1977-1981, Language Arts teacher, Hoover Middle School; 1982, Administrative Intern, Classen H.S., 1982-1984, Assistant Principal, Northeast H.S.; 1984-1985, Assistant Director of Middle Schools; 1985-1988, Coordinator of School Related Services; 1988-1989, Assistant Principal, Star-Spencer, H.S.; 1989 to present, Assistant Principal, Northeast H.S. Since 1976, all teaching, building, and central office administration has been with the Oklahoma City Public Schools, Oklahoma City, Okla.