

ETHICAL CLIMATES AND ETHICAL BEHAVIOR

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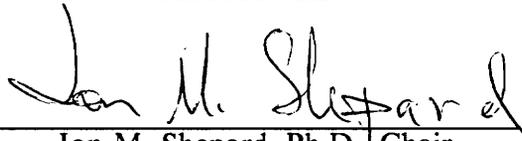
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Dissertation submitted to the Faculty of the
Virginia Polytechnic Institute and State University
in partial fulfillment of the requirements for the degree of
DOCTOR OF PHILOSOPHY

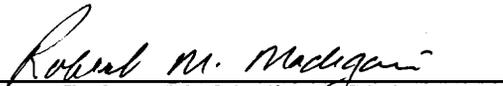
in

Management

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April 14, 1991

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(ABSTRACT)

The relationship between five ethical climates -- caring, service, law and code, independence, and instrumentalism -- and four behaviors -- lying, stealing, failure to follow orders, and being an accomplice to a crime -- was tested in a multi-unit, commissioned-sales, organization. Drawing extensively from the work of Victor and Cullen (1987;1988) nine hypotheses were formulated and tested to determine the viability of Victor and Cullen's ethical climate typology and its relationship to various behaviors and firm performance (profitability and shrinkage). The influence of supervisors on ethical climate and subordinates' ethical behavior was also examined. Four of the five types of climate identified by Victor and Cullen were replicated by factor analysis. At the individual level of analysis, 12 of 20 relationships between the ethical climates and behaviors were statistically significant and in the hypothesized directions. However, none of the predicted relationships between the climates and profitability or shrinkage were supported. Nevertheless, these results provide some initial evidence that there is a linkage between ethical climates and ethical behavior. In addition, supervisors were found to have some influence on subordinates ethical behavior. Implications for future research and practice are provided.

Acknowledgements

Words cannot adequately express the joy I feel in seeing this document completed. However, the greatest joy comes from knowing that so many people expended a lot of time and effort to help me accomplish a goal that has been so dear to me. I wish to not only use this space to acknowledge their help, but to also extend a heartfelt thanks.

First, I had much guidance and support from five outstanding committee members. Each one made a unique contribution in helping me to make this document become one of which we are all proud. Robert M. Madigan spent several hours carefully reading each draft of the dissertation to make sure that I was addressing all of the necessary issues -- time well spent. Steven E. Markham introduced me to the methodology used in this dissertation, guided me through its use, and patiently withstood, on many occasions, my lack of understanding and frustrations associated with methodological rigor. K. Dow Scott's suggestions for data collection, comments concerning the dissertation, and the coding of the data by his Barringer Center staff was extremely helpful and time-saving. Richard E. Wokutch provided his expertise in ethical philosophy and ethics research which proved to be highly beneficial. All of these committee members made significant contributions for which I am very grateful. But, a special thanks goes to my

chair, Jon M. Shepard. Dr. Shepard not only worked closely with me from start to finish, but also provided me, through his department, with a model of what an excellent professor, scholar, and individual is and ought to be. He has helped me in more ways than he will ever know. It is an honor to be his student. Again, to all of my committee members, thanks.

Second, I would like to acknowledge the help of my colleagues and friends who read drafts at different stages of the dissertation and provided useful comments. Diana L. Deadrick at Vanderbilt University, Jeremy B. Fox at Appalachian State University, and Peter J. Mills at Indiana University were very constructive in their criticisms. Their help is greatly appreciated.

Third, a lot of time-intensive and sometimes unenjoyable tasks were performed by my graduate assistant, Thomas J. Hodge. Often, on short notice, Tom would willingly make trips to the library, construct tables, check citations and perform many other similar duties. His efforts enabled me to make steady progress. Had his assistance not been provided, the dissertation would have certainly taken much longer to complete.

I was fortunate to have had support from people who recognized my potential several years ago and were instrumental in making it all come together for me now. These people include Michael K. Jones formerly at Averett College, and at Virginia Tech Elwood F. Holton, Anthony T. Cobb, and especially K. Dow Scott. Each one provided the right type of support just when it was needed the most.

I am also grateful for the support and encouragement from my family. Each family member, in some special way, has been supportive through the good and difficult times. However, a special thanks goes to my mother, Inez S. Wimbush, who instilled in me the virtues of tenacity and perserverance. On so many occasions, it was nice to hear mom's voice filled with the utmost confidence saying to me, "you can do it."

Finally, while I am grateful for the support provided by all of my friends, one friend deserves a special acknowledgement and thanks. Thomas N. Peck has been the most steadfast and best friend throughout my six years of graduate school. He spent time reviewing the dissertation and made helpful comments from a managerial perspective. But more than that, he cheered me up when things were going awry and was one of my most fervent cheerleaders when things went well. In the truest sense of the word, he has been, and will always be a great friend. Tom, thanks for everything.

Again, to everyone who helped to make this document and the Ph.D. degree possible, thank you.

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CHAPTER ONE: INTRODUCTION

NATURE OF THE PROBLEM

Unethical behavior in government and business corporations continues to be a problem for society (Moser, 1988). Government scandals (e.g., Watergate, Iran/Contra affair, Housing and Urban Development, etc.) and corporate wrongdoing (e.g., insider trading on Wall Street, savings and loan swindle, Japanese bribes by Lockheed, etc.) have cost citizens not only millions of dollars but even the loss of lives (e.g., the Challenger disaster involving Morton Thiokol, Union Carbide's Bhopal accident, etc.). Although the dramatic cases receive much publicity, the seemingly trite cases (e.g., padding expense accounts, sexual harassment, kickbacks, cheating, stealing, falsifications, etc.) often go unreported (Moser, 1988). As a result of unethical behavior, there has been a strong public outcry concerning the need to promote ethics within the U.S. government and corporations (Saul, 1981; Coye, 1986; Boling, 1978; Lincoln, Pressley, & Little, 1982; Jansen & Von Glinow, 1985; Cullen, Maakestad, & Cavender, 1987). Not only are citizens concerned about corporate and government misdeeds, but managers are also concerned about the ethical conduct of their employees. In response, many academics (Clinard, 1983) and practitioners (Weiss, 1986) have attempted to determine the appropriate course of action for managers to take in hopes of promoting more ethical behavior in employees. Such efforts may potentially lead to a reduction of the greatly publicized dramatic cases as well as the smaller day-to-day incidents of unethical conduct.

A promising mechanism for understanding and managing ethical behavior in organizations is the concept of ethical climate. In the context of a work environment, an ethical climate refers to the shared perceptions that employees hold concerning ethical procedures and policies occurring in an organization. Ethical climates determine to a great extent the ethical dilemmas to be considered and how they will be resolved within a work group. Any organization may have a general or predominant ethical climate, but several different types of climates may operate in organizational subgroups simultaneously. Victor and Cullen (1987; 1988) conducted two studies in which they empirically examined the ethical climate construct. The studies were based on their development of a theory of ethical climates and a research instrument designed to test their theory. By linking approaches in ethical philosophy to organizational and economic theory, a typology of ethical climate was formulated. Using factor analysis, five empirically-identified types of ethical climates were shown to yield statistically significant differences both between and within four firms. The results from the two studies suggest that there are several types of ethical climates. Evidence also suggests that these different types of ethical climates are distinctive to particular types of organizations (Victor & Cullen, 1988) and may have a significant effect on behavior (Fritzsche & Becker, 1984).

The findings of Victor and Cullen are important because of the possible link between the different types of ethical climates in an organization and the behavior of its employees. It has been well established from prior research that work climates can be a significant factor in shaping the attitudes and behavior of employees (Schneider, 1975). For example, Fleishman (1953) found that foremen adapt their behavior to the prevailing climate in a factory by behaving, not as they were taught in a human relations program, but in a style consistent with their work climate. In another study, White and Lippitt (1968) found that people adapt their leadership behavior to the work climate. These and other studies (e.g., Dieterly & Schneider, 1974; Frederiksen, Jensen, & Beaton, 1972) which show a relationship between climate and behavior, along with recent evidence supporting a link between ethical beliefs and management behavior (Fritzsche & Becker, 1984), suggest that climate is an important determinant of employee behavior. Therefore, a major implication of research on ethical climates is that knowledge of the different types of ethical climates in an organization,

and its relationship to behavioral, organizational, and personal variables, could help managers to design and implement programs to improve employees' ethical conduct by altering factors (e.g., policies, practices, etc.) that affect ethical climates.

PURPOSE OF THE STUDY

The purpose of this study is to build on the work of Victor and Cullen by testing the applicability of their ethical climate theory to a multi-unit, commissioned-sales organization, a type of organization not included in their research. This organization consists of over 500 retail jewelry stores that are divided into 46 districts, two offices for handling charge accounts (credit centers), and a central office which is the company headquarters. The credit centers, central office, and some of the districts will be used in the current study to test ethical climate theory by examining whether this type of organization has the particular type of ethical climate predicted (but not tested) by Victor and Cullen. Next, Victor and Cullen's work will be extended by showing how their typology is possibly related to ethical behavior. To do this, the ethical approaches which underlie the typology, and also serve as a basis for ethical decision-making, will be used to test the proposition that particular types of climates tend to promote either ethical or unethical behaviors. The suggested relationship between ethical climate and behavior is the basis from which several additional propositions are derived and empirically tested.

SIGNIFICANCE OF THE STUDY

This study has both theoretical and practical significance. On the theoretical side, the partial test of Victor and Cullen's ethical climate theory (in a commission-sales organization) provides additional empirical evidence concerning the existence of different types of ethical climates based on type of organization. The questionnaire used in this investigation can be used as a basis for evaluating and comparing ethical climates in organizations and their subunits. The importance of the questionnaire is that it could be used as a mechanism by which ethical climates in different organ-

izations can be examined by researchers. In fact, Cullen, Victor, and Stephens (1989) have already suggested that it could be used for this purpose. The study will further substantiate the relationship between climates (in general) and behavior found in other studies (e.g., Frederiksen, Jensen, & Beaton, 1972; White & Lippitt, 1968), while also giving insight into the relationship between climate and ethical behavior. From the results of the study, researchers will be better able to understand the ethical climate construct and its impact on employees and organizations.

On the practical side, it may be that ethical climate is a significant factor in shaping the attitudes and behavior of employees (Fritzsche & Becker, 1984). Knowledge of the shared perceptions of what is considered appropriate behavior within the organization (or organizational subunit) and how ethical issues will be dealt with within the organization should prove useful in determining the degree to which corporate goals and values are shared across different organizational locations and levels. This information is important to management because an organization's ethical climate contributes to the choice of issues organization members choose to consider as ethically important and the criteria they use to understand, evaluate, and resolve these issues (Cullen et al., 1989). With an evaluation of the values management seeks to promote, and the decision-making criteria and processes it will promote in order to support these values, management can formulate programs to elicit desired ethical behavior from employees. In other words, the study should help managers to better understand how to manage their climate to encourage ethical behavior.

SUMMARY OF THE CHAPTERS

The examination of ethical climate and its impact on employees begins in Chapter Two with a literature review pertaining to work climates, approaches in ethical philosophy, Gouldner's (1957) cosmopolitan/local construct, and Ouchi's (1980) transaction-cost economics theory. Each of these areas of theory and research is shown to serve as a basis for the identification of different types of ethical climates as conceptualized by Victor and Cullen. Victor and Cullen's ethical climate theory and how it can be extended to show the relationship of the ethical climate typology to behavior is

discussed. Propositions concerning (a) the predictability of these types based on organizational characteristics, and, (b) the relationship between these types and ethical behavior are then generated. Chapter Three is a discussion of the methodology used in the study and Chapter Four provides the results. Chapter Five is a discussion of the results, limitations, and practical and research implications of the study's findings.

CHAPTER TWO: LITERATURE REVIEW

Different types of work climates have been shown to exist in organizations (e.g., Schneider, 1983; Zohar, 1980; Abbey & Dickson, 1983). One that has received much attention recently is ethical climate. Of particular importance for this study is the ethical climate theory that has been conceptualized and empirically tested by Victor and Cullen (1987;1988). These researchers derived a theory of ethical climate by combining the tenets of major ethical theories with certain aspects of organizational and economic theories. The ethical theories are those which moral philosophers have conceptualized to serve as bases for an individual's ethical decision-making. These ethical theories are integrated with Gouldner's (1957) cosmopolitan-local construct to form nine theoretical types of ethical climates. These types of ethical climates can be distinguished from one another in different organizations in terms of the organizational typology described in transaction-cost economics theory (Ouchi, 1980). In this section, each of the ethical theories and Gouldner's construct are discussed, first separately and then together, to show how they provide the foundation for ethical climate theory as conceptualized by Victor and Cullen. Transaction-cost economics is then examined to explain why different types of organizations should have different predominant types of ethical climates. As an extension of Victor and Cullen's ethical climate theory, their typology will be shown to be conceptually linked to ethically related behavior.

THEORETICAL BASIS FOR ETHICAL CLIMATES

Organizational climates of many different types have been the subject of academic interest since the late 1950's. Although there is not consensus on a definition of climate, Schneider (1975), conducted an extensive literature review and proposed the following definition:

Climate perceptions are psychologically meaningful molar descriptions that people can agree characterize a system's practices and procedures. By its practices and procedures a system may create many climates. People perceive climates because the molar perceptions function as frames of reference for the attainment of some congruity between behavior and the system's practices and procedures.

Schneider (1975) contends that a work setting may consist of many different types of climates. For example, researchers have studied the existence and extent of warmth and support (Field & Abelson, 1982), nature of rewards (Schneider, 1983), absenteeism (McKee, 1988), acceptability of aggression (Lewin, Lippitt, & White, 1939), service (Schneider, Parkington, & Buxton, 1980), safety (Zohar, 1980), achievement (Litwin & Stringer, 1968), and innovation (Abbey & Dickson, 1983). Based on the research of Victor and Cullen concerning ethical climates, the present study investigates the nature of the ethical climate in an organization. For the purpose of this study, a definition of ethical climate has been derived from the definition of work climate proposed by Schneider (1975). *Ethical climate* is defined as the following:

Ethical climate is the set of stable, psychologically meaningful, shared perceptions that workers hold concerning ethical procedures and practices occurring within an organization.

The theoretical basis for ethical climate is based on the tenets of the two major approaches in ethical philosophy, Gouldner's (1957) cosmopolitan-local construct, and transaction-cost economics (Ouchi, 1980). By integrating these concepts, Victor and Cullen derived a theory which establishes different ethical climate types for different types of organizations.

Ethical Theories

There are two basic approaches to ethical philosophy -- teleological and deontological (Williams, 1985). Both of these approaches consider the basic premises for an individual's ethical decision-making. *Teleological* theories emphasize the end result of actions or practices -- the consequences

of decisions. Teleologists contend that rational evaluations of the consequences of acts guide an individual's behavior. The two major teleological theories are egoism and utilitarianism.

Egoism. The central focus of *egoism* is the maximization of each individual's exclusive self-interest. The egoist believes that self-promotion is either a learned or innate characteristic of all human beings and therefore it is morally right for them to pursue their self-interest (Rachels, 1986). Nothing is owed to others -- no sacrifices, no obligations -- nothing (Beauchamp & Bowie, 1988). Every act either *must* be ("psychological egoism") or *should* be ("ethical egoism") a selfish one. Concern for the self is and ought to be first and foremost. In essence, the egoist view is that egoistic behavior is an all encompassing attribute of human behavior. This view is held by advocates of egoism despite the fact it runs counter to societal convention in which people are expected to consider the interests of others in making decisions (Beauchamp & Bowie, 1988). A true egoist will do whatever is necessary to meet his or her objectives or to advance his or her own exclusive self-interest, even if it means engaging in behaviors such as lying, stealing, cheating, etc.

Although it might appear that the egoist is taking the interest of others into account, this could be only a short-term means to attain a long-term end of attaining his or her own self-interest (Rachels, 1989). This is known as *enlightened egoism*. The enlightened egoist, therefore, does not merely seek immediate gratification through short-term pleasure, but strives to also do what is necessary in order to maximize his or her long-term self-interest. For example, if a lost wallet containing one hundred dollars is returned to a known owner only because the finder believes that this act of kindness could be used in the long-run as a bargaining chip to receive special favors from the rightful owner, then the finder would be acting as an enlightened egoist. Behaviors such as general acts of kindness (e.g., being polite) toward others, following company policy, etc., may all be exhibited by an enlightened egoist if they are done with the expectation of receiving something in return. The enlightened egoist gives now so that he or she may receive later.

Enlightened or not, the egoist's view is not that one should never take the welfare or interests of others into account, but rather that one should consider the welfare or interests of others only when it suits one's purposes or affects one's interests.

Utilitarianism. Unlike egoism, the basic tenet of the second teleological approach, *utilitarianism*, is that an action or practice is right if it leads to the greatest amount of positive consequences for the greatest number of people. This philosophy requires that, when given alternatives, individuals should choose the one with the best overall positive consequences, or choose the alternative with the least overall negative consequences for everyone concerned. Thus, utilitarians are concerned with promoting the greatest amount of happiness for the most people affected, regardless of the individual's own self-interest. Morality, in this context, is not understood as allegiance to a divinely given code, or set of rigid rules, but as a commitment to making the greatest number of people happy from every decision-making opportunity that arises (Mill, 1861). The utilitarian, for example, in deciding whether or not to return a lost wallet containing one hundred dollars, might not do so if he or she felt that the money would be better served by distributing it to homeless people for the purchase of food. For the utilitarian, the central point of morality is to make the most people happy, and each individual is required to do whatever is necessary to promote that happiness (Rachels, 1986).

Deontology. Whereas the primary emphasis of teleology is on the end, *deontology* emphasizes the motives for every act regardless of its consequences. Deontologists are directed toward what is, or what ought to be right, arising from a sense of duty. The obligations people have to each other based on duty provide sufficient reasons for acting, without regard for the consequences of the action. For example, there are many special, nonconsequential relations such as friendships, parent-child relations, marriages, and business affiliations that intrinsically establish and enrich the moral life. In these relationships, according to the deontologist, people are expected to do the "right" thing for each other out of a sense of duty. A father provides for a child, not because he expects the child to provide for him when he becomes elderly, but because it is a father's duty to

care for his children regardless of the cost, the amount of self sacrifices that will have to be made, or the joy or sorrow that the child may bring years later. According to Immanuel Kant (1785), one should act on only those principles that he or she, as a rational person, would prescribe as universal laws to be applied to the whole of mankind. Morality is a matter of following absolute rules -- rules that admit no exceptions. The rule guides individuals independently of the ends they seek.

It is important to note that some writers (e.g., Fritzsche & Becker, 1984) contend that the major ethical theories include theories of rights and justice. Theories of rights provide a guide for the decision maker to insure respect for the rights of individuals. These include: 1) the right to free consent, 2) the right to privacy, 3) the right to freedom of conscience, 4) the right to free speech, and, 5) the right to due process (Cavanaugh, Moberg, & Velasquez, 1984). Theories of justice requires individuals to act with equity, fairness, and impartiality (Rawls, 1971). However, these are deontological theories that focus on a general moral respect for individuals arising from duty. The rules or principles governing this respect are prior-to-society (Kohlberg, 1984) and supercede any laws formally or informally invoked by a given society. Thus, the basic premise from which these dictums arise are deontological.

In summary, the major ethical theories are either teleological (i.e., egoism, utilitarianism) or deontological. Faced with an ethical dilemma, an individual would act according to the tenets of egoism (exclusive self-interest), utilitarianism (the greatest good for the greatest number), or deontology (duty).

Cosmopolitan-Local Construct, Ethical Theories, and Ethical Climates

Victor and Cullen (1988) used the cosmopolitan-local construct of Gouldner to identify "the source of moral reasoning used for applying ethical criteria to organizational decisions and/or the limits on what would be considered in ethical analyses of organizational decisions" (1957:105). From this

perspective, the cosmopolitan-local construct represents the source or referent¹ from which individuals receive their cues regarding what is considered acceptable and unacceptable behavior.

Gouldner derived the referents from both role and reference group theories in sociology. Merton (1957) and others studying roles in social systems identified types of reference groups that help shape the behaviors and attitudes of role incumbents. Merton distinguished between a local and a cosmopolitan role. For the local role incumbent, the important reference groups or sources of role definitions and expectations are contained within a given social system in which an actor is embedded (focal organization). For the cosmopolitan role incumbent, the sources of role definition come from a social system external to the focal organization. Gouldner applied this distinction to organizations to show that those holding local or cosmopolitan roles used different reference groups (internal or external to the organization) as sources to define appropriate role expectations. In addition to the cosmopolitan and local roles, Victor and Cullen (1987) introduced an individual role. This referent is external to the focal organization in the sense that the prevailing normative climate supports each individual looking to his or her own personal morals to make ethical decisions. Thus, the referent could be 1) the individual, in which the basis for ethical decision-making comes from within the individual; 2) local, whereby the source of ethical role definitions and expectations comes from within the focal organization; or, 3) cosmopolitan, in which case the source or reference group for ethical decision-making is external to the individual and focal organization (e.g., a professional association).

Victor and Cullen conceptually cross-classified the three ethical theories (i.e., egoism, utilitarianism, and deontology) with the three referents (i.e., individual, local, and cosmopolitan) to form the framework for a typology of ethical climates. From this integration came nine theoretical types of ethical climates. The typology of ethical climates is shown in Figure 1 on page 12.

¹ Victor and Cullen (1987) refer to the referent as the locus of analysis. Referent is used here to avoid confusion in the meanings of locus of analysis as used in this context and that of the extensive body of climate literature which considers the level of analysis upon which a climate phenomenon exists and is analyzed.

Figure 1. Theoretically-derived types of ethical climates (Victor & Cullen, 1987; 1988).

Ethical Theory	Referent		
	Individual	Local	Cosmopolitan
Egoism	Self-interest*	Company Profit	Efficiency
Utilitarianism	Friendship	Team Interest	Social Responsibility
Deontology	Personal Morality	Company Rules and Procedures	Laws and Professional Codes

* Types of ethical climate

As illustrated in Figure 1, types of ethical climates are identified within the nine cells created by cross-classifying the ethical theories and referents. According to Victor and Cullen (1987), within the realm of egoism, people making ethical decisions identify in whose exclusive self-interest one is expected to act. In the "self-interest" climate, each individual takes into account only his or her exclusive self-interest (e.g., upward mobility, individual gain, etc.). In the "company profit" climate, the organization's interest (e.g., market share, return on investment, etc.) is first and foremost. Finally, in a work group characterized by an "efficiency" type of ethical climate, the primary concern is for each member to use the resources available in the systems (e.g., social, economic), within which the organization operates, to the system's greatest advantage. In each of the climates where egoism is the criterion for making ethical decisions, the referent determines in whose self-interest the ethical practices, issues, and actions will be intended to address.

Within the context of utilitarianism, Victor and Cullen (1987) explain that the referent identifies for organizational members the extent of their relationship to each other and those external to the focal organization. The utilitarian criterion is distinguished from the egoistic by an obligation placed upon each member to regard the interest of others. In the "friendship" climate, the norm in the workgroup is to consider the worthiness and dignity of people without reference to organizational membership. The "team interest" type of climate emphasizes everyone working together as a team or a cohesive group. Group members in a "social responsibility" climate consider the consequences

of their actions on constituencies outside the organization. What is right or wrong depends on the goodness of the outcomes on groups and individuals outside of the organization.

Well-defined principles characterize decisions made based on deontology. The principles are self-chosen in the "personal morality" climate, where each member of the group is expected to use his or her own moral beliefs in ethical decision-making. In the "company rules and procedures" climate, the source of principles lies within the organization (e.g., company rules, codes of ethics, etc.). The source of principles is external to the organization (e.g., the legal system, professional organizations, etc.) in a "laws and professional codes" type of ethical climate. Such climates as this are found in law firms, medical facilities, accounting firms etc. where the concern is with conforming to the laws or codes of an association or governing body external to the organization.

Victor and Cullen (1987) and Kohlberg (1984) hypothesized that utilitarians tend to be less cognizant of laws or rules and may also be less amenable to arguments employing rules or principles. In contrast, people who are deontologists tend to be less sensitive to the particular effects of their actions on others, but rather, focus their attention on following principles. Egoists only look out for the promotion of their own self interest without regard to the interest of others. Given that individuals may adopt any one of these ethical theories to guide their behavior, groups of people might also be expected to develop relatively distinct forms of ethical climates. That is, organizations or subgroups within organizations may be prototypically utilitarian (i.e., oriented to benevolence), deontological (i.e., oriented to principles/rules), or egoistic (i.e., oriented to exclusive self-interest).

Victor and Cullen (1988) argued that the number of types of ethical climates existing in an organization or group influence what ethical conflicts are considered, the process by which such conflicts are resolved, and the characteristics of their resolution. In an organization characterized primarily by a utilitarian ethical climate, a teleological consideration of the well-being of others may be the dominant reasoning used by employees to identify and solve ethical problems. Within a largely deontological climate, the application and interpretation of rules, law, or principles might be the

dominant form of reasoning. In a largely egoistic climate, exclusive self-interest would be expected to be the dominant consideration.

TESTING ETHICAL CLIMATE THEORY

Two studies have empirically tested the existence and extent of the types of ethical climates in organizations. Victor and Cullen (1987) conducted a study that was designed to explore the ethical climate construct by examining the presence of specific identifiable types of ethical climates in different organizations and occupational groups. A questionnaire was administered to four distinctively different groups (i.e., faculty, general managers, military enlistees, and managers from a trucking firm). The questionnaire contained 36 items (four items for each type of climate; see Appendix A) designed to tap the nine theoretical types of ethical climates (as shown in Figure 1 on page 12).

Of the nine different types of climates shown in Figure 1 on page 12, factor analysis yielded six interpretable factors with each factor representing a distinct type of empirically-identified ethical climates. To distinguish the empirically-identified types of ethical climate from the theoretical types of climate in their original typology, Victor and Cullen gave the six emergent factors different names from the theoretically-derived types of ethical climates shown in Figure 1 on page 12. The empirically-identified types of ethical climates were named caring, rules, professionalism, independence, instrumental, and efficiency (Figure 2 on page 15).

Figure 2. Empirically-identified types of ethical climates (Victor & Cullen, 1988).

Empirically-Identified Types	Theoretically-Derived Types
Professionalism	Cosmopolitan/Deontological Cosmopolitan/Utilitarian
Caring	Individual/Utilitarian Local/Utilitarian
Rules	Local/Deontological
Independence	Individual/Deontological
Instrumental	Individual/Egoism Local/Egoism
Efficiency	Cosmopolitan/Egoism

Of particular importance was the finding that the ethical climates examined in the four groups were sufficiently strong and identifiably different enough to produce significant discrimination among the groups.² Academics, compared to the other groups, had the lowest mean score on professionalism but had significantly higher scores on independence. Academics and the trucking firm managers were the most caring. The trucking firm ranked highest on professional code/law climate. The military had the most rules-oriented type of climate and, along with the academics, the lowest on efficiency.

In a follow-up study, Victor and Cullen (1988) confirmed that there are several types of ethical climates. Ethical climate was examined in four organizations (i.e., savings and loan firm, manufacturing plant, printing company, and telephone company) with a combined sample total of 872 employees. Although the results of the analysis showed that the climates were similar to those found in their earlier study, Victor and Cullen found five types of climates instead of six (efficiency was dropped) and changed the label professionalism to law and code. Obviously, the number of empirically derived types of ethical climate is less than the theoretical. Victor and Cullen offered no explanation for the difference between the empirical and theoretical typologies except that the

² Although Victor and Cullen (1987) found that there was often one dominant type of ethical climate in an organization or an organizational subgroup, several of the other ethical climates were found to also coexist but to a lesser extent.

results of their second study basically replicated the findings from their first study. This difference, of course, raises the question of whether the conceptual scheme is faulty or not. Only additional research can answer this question.

For the purpose of generating propositions, the five empirically-identified types of ethical climates will be used as the framework in the present study. This framework is being used because, as stated in chapter one, the purpose of this research is, in part, to replicate Victor and Cullen's findings to see if the same types of ethical climates emerge in this study. Moreover, it is being used because their revised framework "represents a form of reasoning that might be used in organizational decision-making" (Cullen et al., 1989:57). These 'forms of reasoning' are consistent with the basic ethical theories and Gouldner's typology as described in ethical climate theory. In this framework, a "law and code" type of ethical climate would be more likely to exist in organizations using externally generated standards and principles in decision-making. The codes or principles of the outside organization, system, or association would govern the decision-making of the focal organization's members. In a "rules" type of ethical climate, the standards and policies would be internally generated. Work group members would be compelled to follow the rules of the organization with little room for deviation. The organization's rules would determine which ethical issues are considered and dictate how they are resolved. A "caring" ethical climate is one in which the organization encourages employees to be concerned about each other. Work group members are expected to look out for the good of each other and not just each person for him or herself alone. In an "independence" ethical climate, individual moral judgment is the guiding force. Group members rely on their personal moral beliefs, alone, to determine the rightness or wrongness of actions. People within this type of ethical climate are minimally affected by the ethical influence of other group members or constituents outside the organization on their ethical behavior. The final type of ethical climate in the empirically-derived framework is an "instrumental" ethical climate. In this climate, the advancement of one's exclusive self-interest is the major concern. A group member in this climate is only concerned about her or his own personal well-being and not that of the other group members. This revised framework, composed of the five empirically-derived

types of ethical climates, will be used in this study for attempting to discover a link between ethical climates and behavior.

In addition to the results of the factor analysis, Victor and Cullen (1988) reported significant differences between the types of climates in each of the four organizations studied. The differences were established by the mean scores for the organizations on each of the five types of ethical climates. Specifically, the greatest contrast was between the savings and loan and the printing company. The savings and loan company had the greatest emphasis on rules and law and code and the least emphasis on independent judgment. In contrast, the printing company had the highest level of independent judgment and the lowest level of emphasis on law and code and rules. The ethical work climate at the telephone company was similar to the savings and loan firm except for a relatively lower emphasis on law and code and rules. The manufacturing plant's climate was also similar to the savings and loan company although its emphasis on rules was somewhat lower. Interestingly, instrumental criteria were not described as part of the decision making in any of the sampled organizations. And only in the printing company did respondents indicate that independent judgment (one's own evaluation of right and wrong) was involved in decision making.

Differences in ethical climates between organizational levels were examined in organizations where data were available. There were no differences in climate perceptions in organizational levels between departments in two of the organizations (telephone company and manufacturing plant). However, significant ethical climate differences were shown to occur between job levels in at least one organization (savings and loan). In the manufacturing plant, there were significant differences between the main office and a branch facility in ethical climate. Differences in ethical climate perceptions were shown based on tenure in the savings and loan and the telephone company (tenure data were not collected in the other two organizations). The greater the tenure, the greater the perceptions of caring and independent judgment.

Transaction-Cost Economics and Ethical Climate Theory

Victor and Cullen also argue that different types of organizations should have distinctively different types of ethical climates, and organizations that have similar working relationships and are engaged in similar types of business should have the same type of ethical climates. The basis for their argument stems from Ouchi's (1980) transaction-cost economics theory. According to Ouchi (1980), a transaction cost is any exchange arrangement between individuals or groups in which the parties believe the value of the goods or services given and received should be congruent with their expectations. As the complexity and cost of monitoring the exchange increases, it becomes harder to assess the value of the contributions made by each party, thus fostering the need for greater control. In the context of work, the degree of control placed upon workers by an organization is in accord with the type of exchange arrangement or transaction form based on the extent to which there is clear understanding about expected performance and congruency between the goals of both parties in the exchange. Ouchi (1980) identified three types of transaction forms: (1) markets, where there is little ambiguity about performance and a high degree of incongruency between the parties concerning goals; (2) bureaucracies, where both a lot of ambiguity concerning performance and incongruency concerning goals exist; and, (3) clans, in which there is a high degree of ambiguity concerning performance and a high degree of congruency between the parties concerning goals.

Ouchi's (1980) transaction forms are important to ethical climate theory in that the amount of control an organization exerts on employees contributes to the policies and practices that shape the climate. The degree of organizational control increases from markets to clans because the transactions costs and complexity in the exchange increase. In a market, such as a sales organization, employees generally know what their performance targets are. Typically, few restrictions (via policies, rules, etc.) are placed on salespersons by the organizations since people in sales know fairly clearly what has to be done in order to stay on the company payroll. This competitive sales environment is one in which each person is generally looking out for attaining her or his own sales goals with little regard for the performance of the group or organizational goals. In a bureaucracy, the

performance and goals of the parties are typically not well defined. In this case, the organization exercises more control by way of rules, laws and codes to monitor the conduct of employees. Clans are characterized by a high degree of goal congruence and a lack of clarity concerning performance. Clans foster a high degree of control through socialization whereby each member is allowed a high degree of flexibility in using his or her own judgement to attain the common organizational goals but, with respect and regard for the work and well-being of colleagues. Although the members of the work group act independently of each other in doing his or her share to help the organization reach its goals, members are expected to support and actively assist other members with the development of their ideas and means chosen by them to pursue organizational goals.

Each of these transaction forms would be expected to have distinctively different climates because the policies and practices initiated by the organization would impose differing degrees of control on its members. While in a market there are few controls, this form of governance focuses on processes of individual initiative and self-serving behavior. Thus, the climate would be expected to be predominantly egoistic. In a bureaucracy where there is a high degree of ambiguity concerning expectations in employees' performance, rules, laws, and codes would be expected to characterize the nature of the ethical climate. Yet, in a clan, independence and caring would most likely be the predominant types of ethical climates because members of the group support each other's work even though they tend to work independently of each other. It is also important to note that in the exchange relationship in each of the transaction forms, employees can also monitor the conduct of the organization with respect to what the organization gives them for their contributions (e.g., wages, working conditions, etc.). This is done through mechanisms such as unions and grievance procedures. However, in terms of shaping the ethical climate, the interest for this study is on the organizations' control mechanisms.

Using Ouchi's (1980) transaction-cost economics typology, Victor and Cullen (1988) were able to show that the traditionally bureaucratic organizations -- the savings and loan company, telephone company, and manufacturing plant -- were focused on rules, laws, and codes. The print shop,

clan-like in nature, fostered a caring and independence ethical climate. Although no organization was studied with a market form of economic governance, Victor and Cullen (1988) hypothesized that commissioned-sales organizations exemplify the market form and thus would be expected to develop more of an instrumental type of ethical climate.

In summary, Victor and Cullen's ethical climate theory posits that organizations have identifiable types of ethical climates. These types of climates determine the nature of the ethical issues considered and how they are addressed. Ethical climates emerge within organizations, in part, because of the nature of the business conducted within them. Depending on the type of organization (i.e., market, bureaucracy, clan), a particular predominant type of ethical climate can be predicted to exist, even though several other types of ethical climates may coexist within subgroups of the organization. Victor and Cullen concluded that their studies make theoretical contributions by identifying specific types of ethical climates that relate to aspects of ethical philosophy, organizational and economic theories, and by showing that these types may be affected by the environment, transaction efficiency, and firm-specific factors.

Proposition 1

As mentioned earlier, although Victor and Cullen did not examine an organization with a market form of governance, they hypothesized that an organization with a market form of governance would be expected to have an instrumental type of ethical climate (i.e., egoism). This would occur, they contended, because members of the organization would have a strong motivation for promoting and maintaining their individual self-interests. Bureaucracies are expected to focus on rules, laws, and codes. It follows then, that the predominant ethical climate of bureaucratic-type facilities, such as government agencies, should differ from the predominant ethical climate found in market-types of organizations. As discussed earlier, in a clan-like organization, the climates most likely to be found would be caring and independence. This provides the basis for the first proposition.

Among employees in organizations, the ethical climate will be predominantly instrumental if the organization has a market form of governance, law and code and rules if the form of governance is a bureaucracy, and independence and caring if the organization has a clan form of governance.

TESTING THE RELATIONSHIP BETWEEN ETHICAL CLIMATE AND ETHICAL BEHAVIOR

As noted earlier, many studies have provided evidence that work climates can be a significant factor in shaping the attitudes and behavior of employees (e.g., Dieterly & Schneider, 1974; Fleishman, 1953; Frederiksen, Jensen, & Beaton, 1972; White & Lippitt, 1968). A recent study by Fritzsche and Becker (1984) suggests that climate is an important determinant of employee behavior. Knowledge of the relationship between ethical climate and behavior could help managers design and implement programs to improve employees' ethical conduct by altering factors (e.g., policies, practices, etc.) that affect climate. Thus, a natural extension of Victor and Cullen's work is to test the relationship between the five empirically-identified types of ethical climates and employee behavior.

To establish the ethical climate/behavior relationship, one must first consider how the types of empirically-identified climates differ. Because the tenets of each of the ethical theories underlying the climates serve as a basis for ethical decision-making, it is important to understand the behaviors they are most likely to invoke. A useful mechanism for illustrating how the climates differ with respect to decision-making and behavior is to use an example given by Cullen et al. (1989). A stockbroker is offered a tip from a friend based on insider information. This, of course, is illegal. Yet, the broker must decide whether or not to use the information. According to ethical climate theory, the broker working in a firm that reflects caring and independence types of ethical climates would probably counsel her or his friend to stop such harmful activities. Working in a firm with law and code and rules types of ethical climates, the broker would probably report the violation to

the Securities Exchange Commission. The firm with the instrumental ethical climate would probably sanction the broker's use of the information. This is expected to occur because only in ethical climates with an instrumental decision-making basis would people be most likely to act in ways to promote their own exclusive self-interest regardless of laws, rules, or the impact their actions have on others. Thus, behaviors such as lying, cheating, stealing, etc. may be expected more often in an instrumental ethical climate. Both utilitarian and deontological theories are more likely to lead to behavior that is less prone to lying, stealing, etc., since the interests of others are considered in them and the decision-making is based on them. These theories underlie the caring, rules, law and code, and independence types of ethical climate.

What has been shown in this discussion is that, in essence, Victor and Cullen's five empirically-identified types of ethical climates can be divided into categories which foster unethical and ethical behaviors. In this context, ethical behavior is defined as taking into account equally the interests of all parties (e.g., oneself, co-workers, customers, management, stockholders, etc.) affected by a decision or policy. Figure 3 illustrates the relationship between the types of ethical climates and expected types of behavior.

Figure 3. Types of ethical climates and expected types of behavior.

<u>Unethical Behavior</u>	<u>Ethical Behavior</u>
Instrumental	
	Caring
	Law and Code
	Rules
	Independence

Proposition 2

As explained earlier, members of work groups who perceive an instrumental type of ethical climate would be expected to engage in unethical behaviors more often than members of groups in non-

instrumental types of ethical climates because a concern for their exclusive self-interest without regard for others is their primary ethical decision-making criterion. Conversely, members of groups with a non-instrumental type of ethical climate are less likely to sanction lying, cheating, and stealing behavior because of their concern for the potentially adverse impact of such behavior on others. Proposition 2 is derived from this distinction.

Employees in organizations are more likely to engage in ethical behavior if the ethical climate is caring, law and code, rules, or independence and more unethical behavior if the ethical climate is instrumental.

Proposition 3

An issue that is very important in understanding the relationship between climate and behavior relationship is the impact supervisors have on group members. Previous research has generally found positive relationships between styles of leadership behavior and performance for both sales and nonsales occupations (Ilgen & Feldman, 1983; Landy & Farr, 1983; Tyagi, 1985). Thus, the way a supervisor manages his or her personnel can have an impact on their subordinates' behavior (Walker, Churchill, & Ford, 1979). Evidence suggests that this is particularly true with regard to the impact supervisors have on their employees' ethical behavior. Surveys by Posner and Schmidt (1982; 1984) consistently showed that the behavior of one's supervisors was the primary influence on an individual's ethical behavior. It has been argued that even in the presence of an ethics policy, subordinates will do what they see their supervisors do rather than adhere to the company's ethical policy (Andrews, 1989). Subordinates are likely to do this because the behavior will be evaluated or interpreted by those above them in the organization (Posner & Schmidt, 1984). These findings are consistent with findings by Zey-Ferrell, Weaver, and Ferrell (1979) that support a model which assumes that individuals are more likely to become engaged in unethical behavior when a supporting belief system exists. They were able to show, however, that the reference group that had the most impact on ethical behavior was that of peers, rather than top management. Yet, in a

follow-up study (Zey-Ferrell & Ferrell, 1982), it was found that both peers and top management affected individual ethical decisions.

The results from these studies suggest two important points. First, they signal that there may be congruence between an individual's personal ethical orientation and the ethical orientation of the group members. This is consistent with recent studies which have found that value congruence between supervisors and workers is linked to affective outcomes such as more worker satisfaction and organizational commitment (Meglino, Ravlin, & Adkins, 1989). It is likely that those individuals who find that their ethical work values are incongruent with their peers or superiors could exit the organization (Schein, 1985), thus making for a homogeneous group of individuals with respect to ethical orientation. Second, as reported by Posner and Schmidt (1982; 1984), the ethical values of supervisors do have a significant impact on individual's personal ethical behavior. Victor and Cullen also found some evidence that supervisors may have influence on their subordinates perceptions. They found (Victor & Cullen, 1988) that the climate perceptions of the supervisors were the same as the climate perceptions of their subordinates for the four different organizations investigated. An appropriate investigation in the present study would be to see if the same relationship between ethical climate perceptions and behavior exists for supervisors and their work group members. This would be achieved by first determining whether supervisory groups are different from each other and then ascertaining whether the differences are replicated in their corresponding subordinate groups. This conceptualization is the basis for Proposition 3.

In organizations, there is congruency between the ethical behavior of the supervisors and their subordinates.

Proposition 4

The behavioral outcomes resulting from the dichotomy (Figure 3 on page 22) of the ethical climates can also be assessed through group or firm performance. Although only a few empirical

studies have investigated the relationship between ethical climates and firm performance (Dunfee & Robertson, 1984), many studies have linked ethical and unethical behavior to various environmental factors such as increased competition (Hegarty & Sims, 1978) and the exclusive pursuit of profits (Hegarty & Sims, 1979). In a laboratory experiment devised around a simulated task involving marketing decision-making and the possibility of kickback payments, Hegarty and Sims (1978) found that when unethical behavior (i.e., accepting kickbacks) was rewarded with higher profits, the unethical behavior occurred at a higher frequency. Unethical behavior was also shown to increase with increased competitiveness among workers (e.g., within a sales force).

In a follow-up study, Hegarty and Sims (1979) confirmed their earlier findings that unethical behavior occurred more often when it was rewarded. They were also able to show that ethical behavior was greater when an organizational ethics policy existed. Although Hegarty and Sims acknowledged that the artificial nature of the laboratory setting makes it necessary to extrapolate cautiously the results to real organizations, they also stated that "overall results suggest external validity because of the remarkable parallel of these experimental variables and results with the current facts reported daily in the media" (1979: 338).

These results of the Hegarty and Sims (1979) research add support to Dunfee and Robertson's (1984) argument that there are two primary reasons for believing that workers with positive work-related ethical attitudes and behavior contribute to increased firm profitability. First, employees who have negative ethical attitudes may behave in a manner that adversely affects the organization (e.g., cheating on expense reports, not following rules, etc.) which may negatively impact the firm's cost and operating efficiency. Second, Dunfee and Robertson contend that negative ethical attitudes will directly impact workers' productivity. This is because in many organizations (service-oriented) employees have greater discretion over how a job is performed making it more difficult for management to measure and monitor the employees' performance. Dunfee and Robertson argue, therefore, that employees with positive ethical attitudes are less likely to behave unethically, which might have a deleterious effect on the organization, in order to promote their own self-

interest (e.g., evaluations of their personal performance). As an empirical example of the effects of ethical perceptions and performance, studies of employee theft in retail department stores have shown a clear relationship between organizational climate and employee honesty. In a study of 22 large department stores in shopping malls, the company with the smallest shortages had established a climate of honesty characterized by a well defined code of ethics and a well understood set of organizational values (Posner, Kouzes, & Schmidt, 1985). From this discussion, proposition 4 is generated.

Firm performance is negatively related to employee perceptions of an instrumental type of ethical climate.

CONTROL VARIABLES

While a significant relationship between ethical behavior and ethical climate might be found, it could be that other variables actually produce the observed effect. These variables include gender, tenure, education, and age. Although Victor and Cullen did not control for these variables, each of them may have an effect on the ethical work climate and behavior. The specific direction of the relationship for each variable has been determined based on previous research. Each variable is discussed below.

Gender. Research has shown that men and women differ in how they make moral judgements. Women tend to be more concerned about ethical issues, while men report that they are more likely to engage in unethical behavior compared to women (Gilligan, 1982; Jones & Gaultschi, 1988; Betz, O'Connell, & Shepard, 1989). While reasons for the differences in ethical behavior between women and men are unclear, evidence suggests that women are on average more likely to hold ethical attitudes and values and less likely to engage in unethical behavior than men. It is expected that as the

ratio of women to men increases in a workgroup, unethical behavior will decrease, the ethical climates of caring, rules, law and code, and independence types will increase, and the instrumental ethical climate will decrease.

Tenure. Victor and Cullen (1988) found that perceptions of a caring climate increased with tenure. Schneider (1987) contends that through a process of selection, attraction, and attrition, individuals self-select themselves into groups of people (e.g., social, professional, and work organizations) that share the same values. But, if incongruity concerning values exist, the individual leaves the relationship (i.e., organization). Thus it is expected, as Victor and Cullen (1988) found, that tenure has a positive effect on ethical climate and ethical behavior.

Education. Although some very highly educated individuals have been found to be very unethical in their business experience (e.g., Ivan Boesky, Michael Milken), there is some evidence which suggests that people who are highly educated are more likely to engage in ethical behavior compared to their less educated counterparts (Trevino, 1986). Even if the individuals' education experience did not include specific ethics courses, they seemed to exhibit more ethical behavior than those with little education. It is expected that education has a positive effect on ethical climate and ethical behavior.

Age. Research on adult moral development has found that some adults continue their cognitive moral development beyond their years in school (Colby, Kohlberg, Gibbs, & Lieberman, 1983). It has been speculated that work plays a significant role in continued adult moral development (Trevino, 1986) which is highly correlated with age. Age would be expected to be positively related to ethical climate and ethical behavior.

SUMMARY

This chapter has presented a review and extension of the ethical climate theory of Victor and Cullen. Integration of the tenets of the major ethical theories (i.e., deontology, utilitarianism, and egoism) and certain aspects of organizational theory (Gouldner's cosmopolitan-local construct) were shown to provide the foundation for nine theoretically-derived and five empirically-identified types of ethical climates -- caring, law and code, rules, independence, and instrumental. These climates can be predicted to exist in organizations and organizational subgroups based on Ouchi's (1980) transaction-cost economics theory. Ouchi's transaction-costs typology suggests that organizations with a market form of governance would be expected to have an instrumental type of ethical climate, organizations with a bureaucratic form of governance would be expected to have both rules and law and code types of ethical climates and a clan would be expected to have both independence and caring types of ethical climates. The ethical climates were next shown to be conceptually linked to ethical or unethical behavior. Organizations characterized by an instrumental type of ethical climate were expected to be most likely to yield unethical behavior because the group members would do whatever was necessary to promote their exclusive self-interest compared to members of organizations with either a caring, law and code, independence, or rules ethical climate. On the other hand, members of organizations with a caring, law and code, rules, or independence ethical climate would be most likely to act ethically compared to those in an instrumental climate because these climates foster a concern for the interest of others as well as oneself. Altogether, four propositions were developed to show the expected relationships between the constructs presented. The next chapter presents the four propositions transformed into eight hypotheses suitable for testing the variables which operationally represent the conceptual constructs. The methodology used to conduct the study and test the eight hypotheses is also discussed.

CHAPTER THREE: METHODOLOGY

DESCRIPTION OF THE SAMPLE AND DATA COLLECTION PROCEDURE

This chapter discusses the methodology that was used in the study. Included in the discussion is information concerning the research site, variables, data collection methods, and the analytical procedures employed in testing the hypotheses. The propositions which were presented in chapter two are restated in this chapter as hypotheses for testing.

Research Site

This research was conducted in a multi-unit, jewelry retail sales organization. Although all of the units of the organization were not part of this study, the firm had 502 retail stores in 33 states, two credit centers (one in the eastern, and the other in the western, part of the United States) and a central office on the east coast. The company had four divisions that were divided into 46 districts of commissioned-sales retail stores. There were an average of approximately ten stores for each district. Each store had an average of ten commissioned-sales employees while the credit centers and central office had 100-200 employees each. There were approximately 5200 employees in the organization of which 63% worked part-time.

Earlier, ethical climate was defined in terms of employees' perceptions of the policies and practices in the organization. Thus, it was important to review the practices and policies that may have affected employees' ethical climate perceptions. In this organization, there was no formal policy or statement of values concerning ethics. However, the organization scrupulously screened all employment applicants for self-admissions of theft or evidence of a perceived propensity towards theft. The screening included paper and pencil tests and for highly sensitive positions in the central office, interviews were conducted by trained security professionals. During orientation, employees were informed of all the company policies and procedures concerning store security and maintenance issues. According to company management, ethical issues were not discussed and nothing in the employee handbook referred to ethical issues -- it only noted company policies (e.g, dress code, minimum number of employees in the store, diamond counts, etc.). Employees suspected of wrongdoing (e.g., stealing, falsifying credit applications, etc.) undergo a stressful interrogation conducted by company security. Prior to 1988, the suspect was also subjected to a polygraph test. The retail stores were occasionally audited, particularly when exceptionally high shrinkage had incurred.

Sample and Data Collection

The sample consisted of approximately 4400 employees from 440 retail stores, two credit centers, and the central office. This sample included employees at all organizational levels except top management. The retail stores comprised 40 districts. Thus, each district had an average of ten retail stores. Ethical climates were examined at the district level and not the stores for three reasons. First, because of the sensitivity of the questionnaire to the employees, it was important to assure them as much as possible that their responses were anonymous and confidential. Based on past survey experience in the company, when employees were asked to identify their store or provide their names, they were reluctant to do so and often failed to complete the instrument with accurate responses or at all. Second, because of the different work shifts and varying schedules of part-time employees, it would have been nearly impossible to get all of the employees in a store together at

the same time to administer the questionnaire. Store managers were usually reluctant to sacrifice selling time to conduct a survey because often there were only two employees in a store on a low traffic day and the slack time had to be used for higher priority duties such as manual inventories, performing minor repairs to jewelry returned to the store by customers, etc. Finally, and the most compelling reason for examining districts and not stores, the district was the functional unit within the organization. Store employees saw and received verbal and written information from their district managers frequently. Since the district manager was ultimately responsible for the performance of each store in his or her district, all major policies and procedures were conveyed to store employees from the company headquarters by the district manager. Because of the district manager's role in store performance, the stores within a district had a close working relationship with each other. They often had sales contests, traded merchandise, and shared store information with each other. According to management, "the district IS the organization for retail employees." In other words, when the employees thought of the organization, their frame of reference was the district within which they worked.

Data were collected by means of a questionnaire (see Appendix B) that was designed to assess employee perceptions of the ethical climate of the company. The questionnaires were mailed to each employee's home from the home office of the company. The respondents were asked to return the questionnaires to the researchers on stamped envelopes, self-addressed to the researchers. Two follow-up notices were sent (two weeks apart from each other) to all employees as a reminder for them to mail their survey responses if they had not already done so.

This data collection procedure was used so that employees would feel able to respond openly and honestly without the pressure of time, job, supervisor, or peer constraints that may potentially have been felt at work. The confidentiality of responses was stressed by accompanying letters from the organization and the researchers. This method of questionnaire distribution was also determined to be the most practical avenue for data collection since periodic store meetings with all employees were not consistently held and the cost involved with researchers visiting each store to collect data

on-site would be prohibitive. This method was also encouraged by company management since (a) all important and sensitive information was mailed to employees' homes, and, (b) historically, a substantial number of employees had responded to previous questionnaires mailed to them for other purposes by the company.

Since the questionnaires were mailed to the employees' homes and the employees were asked to voluntarily return the questionnaire to the researchers, there was an obvious concern for the potential low number of responses that might be received, especially because of the nature of the sensitive issues addressed in the survey. However, this concern was tempered by the fact that the employees were guaranteed confidentiality and the company had had good previous success with surveys administered in this manner.

Pretest

The questionnaire was pretested with a sample of employees from a different organization in order to evaluate the clarity of the instructions and items. It was expected that much useful information would come from these individuals regarding problems with format, question content, wording of items, and response format, as well as an indication of the time necessary to complete the survey. The pretest was conducted in the same manner in which the data collection was planned for the study. That is, the questionnaires were delivered to the pretest participants in a packet which included the same materials (e.g., instructions, company letter of endorsement, etc.) as was given to the sample participants. No instructions were given to them verbally. Each pretest respondent was instructed to return his or her completed questionnaire by mail.

MEASURES

The questionnaire incorporates items designed to measure different types of ethical climates, individual ethical behavior, and firm performance in addition to their level of education, age, gender,

position, tenure, questions concerning drugs, security, honesty, communication, and satisfaction in the company.³

Types of Ethical Climates

The "Ethical Climate Questionnaire (ECQ)" of Victor and Cullen (1987;88) was used to assess the different types of ethical climates (see Appendix B). It is comprised of 36 items designed to tap the nine theoretically-derived types of ethical climates.

Victor and Cullen note that an issue often raised concerning the measurement of climate is the confounding of employees' perceptions of the climate by evaluative or affective responses (e.g., job satisfaction) to the organization (Johannesson, 1973). Since climate questionnaires assess a respondent's descriptions of the policies and practices that occur within an organization (Schneider, 1975) what she or he sees may be "clouded" by his or her feelings concerning the organization. At least on average, use of a questionnaire assumes that employees objectively report what they see occurring in the organization if they are asked only to report what actually occurs (Schneider, 1975). The ECQ did this by emphasizing the respondents "description" of the climate rather than their feelings concerning it. The instructions to the respondents read:

We would like to ask you some questions about the general nature of (firm name). Please answer the following in terms of how it really is in (firm name). NOT how you would prefer it to be. Please be as candid as possible, remember, all your responses will remain strictly confidential.

Respondents were asked to indicate on a 6-point Likert-type scale (ranging from completely false to completely true) how accurately each of the items described their general work climate. The Likert-type scale was directly below and clearly labeled for each individual item, facilitating the marking of the appropriate response (see Appendix B). Because individuals were asked to be observers and, in essence, report what they saw, each six-point scale did not include a neutral point

³ Since this research was part of a larger study, all of the data collected were not germane to this dissertation.

since these "no response" points could potentially hide actual responses which may otherwise be used to distinguish subjects (Nunnally, 1978).

Two studies by Victor and Cullen have been conducted using the ECQ. Scales were constructed from items identified by factor analyses as representing five emergent types of ethical climates. In the first study (1987), there was a moderate degree of independence between the scales with low intercorrelation levels (r 's ranged from .00 to .42). Coefficient alphas for each scale ranged from .65 to .82, for an average of .76. In their second study (1988) using the ECQ, the scales had moderate independence. The intercorrelations ranged from .05 to .55. The coefficient alphas ranged from .60 to .80, for an average of .74. Victor and Cullen noted that while greater scale independence may have been desirable to tap better the uniqueness of each type of ethical climate, the theoretical relationships among the constructs did not demand strict independence. It was possible that two or more types of ethical climates coexisted. For both studies, as discussed above, the measures had satisfactory reliabilities (Nunnally, 1978).

Individual Ethical Behavior

To link ethical behavior to theory, it is important to capture as much as possible how a person would act in face of an actual ethical dilemma. This can be accomplished by using vignettes (Fritzsche & Becker, 1984) which describe a situation containing an ethical dilemma. Vignettes are used because it is difficult, if not nearly impossible, to obtain accurate objective measures of individual ethical behavior; although much internal pilferage occurs in organizations, most people are not caught. By using vignettes, researchers are able to tap an individual's behavioral reaction to a situation by injecting a greater amount of background information and detail into an ethically questionable issue. Vignettes therefore are thought to elicit a higher quality of data from respondents in this type of research than is possible from simple questions or objective measures (Fritzsche & Becker, 1984; Alexander & Becker, 1978).

The key problem with vignettes, however, is that they are often too vague and general (Randall & Gibson, 1990). Typically, the vignette provides too little information for the respondent to respond to questions about the situation in accordance to what he or she would do in real life. According to Fredrickson (1986), a useful remedy for vagueness and generality is to use vignettes that relate to realistic situations, provide a detailed situation, have accompanying questions which are understandable and provide an accurate portrayal of the situation, and generates the respondent's interest and involvement.

The vignettes chosen to measure ethical behavior in this study were consistent with Fredrickson's criteria. They were taken from the "Work Situation Questionnaire" (Shepard & Hartenian, 1990) which consists of four vignettes that were constructed from newspaper reports of an actual series of ethical situations that occurred in an actual business organization. Thus, the vignettes appeared realistic. This series of vignettes was also chosen because they dealt with situations occurring in an industry not related to the retail industry. Using situations that did not pertain directly to the retail industry was considered to be crucial for getting a higher response rate. It was feared that if retail-specific situations were used, employees might suspect that the company was using this instrument as a mechanism for identifying those who had engaged in, or had a propensity to engage in, unethical conduct.

Each of the four vignettes used in this study presented a situation that involved an ethical dilemma in which the respondent indicated what he or she would have done in the situation and why. The four ethical dilemmas involved: 1) stealing, 2) lying, 3) following company rules, and 4) being an accomplice to a crime, respectively. After reading each vignette, the respondents were asked in the instructions to assume the role of the decision maker and then indicate how they would have behaved in each situation by answering a series of questions. These questions were based on the major ethical theories discussed in chapter 2 -- egoism, utilitarianism, and deontology. The problem of vagueness and generality was minimized because, a sufficient amount of information concerning the actual situation was included in the vignette. This should have allowed the respondents

to capture the essence of the dilemma so that they would have answered the questions according to what they would have most likely done in the event the situation was actually occurring.

The questions which followed each vignette were used to form a three-item scale for the particular behavior represented. Each vignette is given below with the accompanying questions the respondents answered.⁴ (See Appendix B for the complete responses for each vignette.)

Situation 1 --You are an employee of Western Industries working in the assembly room where the guidance system is installed in nuclear missiles carrying multiple warheads aimed at targets in the Soviet Union (MX Missiles). Some of the metals used are quite expensive but very useful for home repairs. You are considering whether you would take some of the metal out of the plant for your personal use.

1. Because I should pursue my own long-term best interests to the exclusion of the interests of all others involved, I would take some of the metal home.

Yes	No
-----	----
2. Because it would be okay with me if everyone else did the same thing, I would take some of the metal home.

Yes	No
-----	----
3. If the benefits of taking some of the metal home outweighed the costs to all concerned, I would do so.

Yes	No
-----	----

Situation 2 --As an employee of Western Industries, you know that the company is behind in its production deadlines for the MX missile. Certain employees are even working overtime in order to help the company minimize the time overrun. A friend of yours who works at another company invites you to take a four-day vacation at a mutual friend's lakefront cottage. You are considering whether you would call in sick to miss work Thursday and Friday to join your friend.

1. Because I should pursue my own long-term best interests to the exclusion of the interests of all others involved, I would call in sick.

Yes	No
-----	----
2. Because it would be okay with me if everyone else did the same thing, I would call in sick.

Yes	No
-----	----
3. If the benefits of my calling sick outweighed the costs to all concerned, I would do so.

Yes	No
-----	----

⁴ The questions which follow each vignette are in a different format from the Work Situation Questionnaire. The original instrument asked respondents to first respond to Part A by indicating whether they would or would not engage in ethical behavior then to go to Parts B or C depending upon their response in Part A. Parts B and C were items pertaining to the different ethical orientations that were used to indicate why the particular response in Part A was given. Following discussion by researchers who are familiar with questionnaire research, it was felt that the original format might be too ambiguous for respondents. Therefore, the items from Parts A, B, and C were condensed to form items that would facilitate ease in responding to them while retaining the essential content for the constructs.

Situation 3 --The assembly room for the MX missile at Western Industries must be kept totally clean at all times. All persons entering the assembly room must wear masks, gloves, and a protective suit. All food and drink is strictly prohibited in the assembly room. Otherwise, tiny debris could find its way into the guidance systems being installed and cause the missiles to malfunction in the event of their launching in a nuclear war. Since you are unable to leave the assembly room, you are considering whether you would eat lunch at your post.

1. Because I should pursue my own long-term best interests to the exclusion of the interests of all others involved, I would eat my lunch in the assembly.

Yes	No
-----	----

2. Because it would be okay with me if everyone else did the same thing, I would eat my lunch in the assembly room.

Yes	No
-----	----

3. If the benefits of eating my lunch in the assembly room outweighed the costs to all concerned, I would do so.

Yes	No
-----	----

Situation 4 --Western Industries is now so far behind in its production schedule that it is about to suffer crippling penalties from the federal government. This backup problem is largely due to the unavailability of properly inspected control mechanisms from the supplier. One way around this problem is to obtain uninspected control mechanisms from an unauthorized supplier. In fact, management has already arranged for these uninspected control mechanisms to be delivered to a post office near the plant. If these uninspected control mechanisms are installed, there is no way to know if fired missiles will hit Chicago or Moscow. You are considering whether you would install the unauthorized guidance mechanisms in order to help the company avoid the crippling penalties.

1. Because I should pursue my own long-term best interests to the exclusion of the interests of all others involved, I would install the unauthorized guidance mechanisms.

Yes	No
-----	----

2. Because it would be okay with me if everyone else did the same thing, I would install the unauthorized guidance mechanisms.

Yes	No
-----	----

3. If the benefits of my installing the unauthorized guidance mechanisms outweighed the costs to all concerned, I would do so.

Yes	No
-----	----

The vignettes were scored by classifying, for each vignette, respondents who chose alternative "yes" or "no" for whether they would engage in unethical behavior.

This instrument has been shown to be useful for assessing ethical orientation. In the study for which these vignettes were developed, and the only one that used them to date (Shepard & Hartenian, 1990), 35 percent of the respondents indicated that they would engage in unethical be-

havior for the first situation, 61 percent for the second situation, and 24 and 7 percent for the third and fourth situations.

It is important to note that these vignettes carry limitations in attempting to measure actual behavior or perhaps even the respondent's propensity to behave. Respondents were asked to indicate whether they would engage in the four behaviors based on various moral rationales. These rationales (the beginning clause for each alternative response) were used so that the effects of social desirability bias would be reduced and so that the reliability of the behavioral measures could be assessed.

Firm Performance

Firm performance was measured by shrinkage and profitability data obtained from company records. The data were collected at the store and district levels. The data were the totals for years 1986, 1987, 1988 and 1989. Four years were collected so that the stability of the data could be determined. The profitability measure was the yearly profit and loss for store or district. These figures represented income or loss before income taxes. The shortage measure was yearly shortage or overage for the four-year period. The shortage data were based on the cost of goods that were missing or unaccounted for in a store's inventory. Both the profit and shortage data were examined for stability over a four year period to determine if there had been major shifts in the amount of profit or shrinkage. These data were also examined to determine whether or not they were of a normal distribution. Barring any erratic fluctuations, the 1989 data were the most appropriate data for testing the hypotheses because they were closest to the time of the attitudinal data collection. These data were adjusted for the differences in the number of employees in each district. Analyses to test the hypotheses using these firm performance data were conducted with the data adjusted for store size, number of employees, and unadjusted.

Control Variables (Gender, Age, Education, Tenure)

The control variables were operationalized by the participants responding to the following questionnaire items.⁵

- Gender

I am male/female. (circle one)

- Age

My age is: (check one)

- under 18 years.
- between 18 and 21 years.
- between 22 and 28 years.
- between 29 and 38 years.
- between 39 and 45 years.
- between 46 and 65 years.
- over 65 years.

- Education

My amount of education is: (check one)

- less than 8th grade.
- 8th grade.
- some high school.
- high school graduate.
- some college/technical school.
- college graduate.
- master's, doctorate.

- Tenure My years of service are: (check one)

- less than 1 year.
- between 1-2 years.
- between 2-3 years.
- between 3-5 years.
- between 5-10 years.
- between 10-15 years.
- over 15 years.

⁵ Items measuring age, education, and tenure were presented as categories, arbitrarily chosen, in order to prevent identification of individuals who might be singled out due to unique characteristics based on these variables. For example, within a district the only employee with 30 years of service, or female employee who is 40 years of age might be easily identified. Although no one from the organization will see individual's responses, the categories were felt to provide added assurance to the participants that their responses would be completely anonymous. Due to the sensitive nature of the questionnaire, this assurance to the respondents was necessary for getting accurate responses.

ANALYSES

Prior to hypothesis testing, analyses which were essential for establishing the reliability of measures and providing the basis for testing specific hypotheses were conducted. The types of ethical climates were examined by factor analysis. Reliability was estimated by means of Cronbach's alpha. Factor analysis and Cronbach's alpha are described below.

Ethical Climate Typology

This study was in part a replication of the empirically-identified types of ethical climates found by Victor and Cullen (1988). Therefore, prior to hypothesis testing, a factor analysis was conducted to determine whether the five ethical climates they found were replicated. However, as Victor and Cullen (1988) noted, a company may have several different types of ethical climates coexisting. Even though each district represented a group of stores, it was possible that different types of ethical climates may have been predominant in different districts. It was very likely, as hypothesized, that the credit centers and the central office had different ethical climates compared to the districts. So, it was expected that Victor and Cullen's five factors would emerge in this study. Although each type was expected to load separately, it was recognized that some items would possibly need to be eliminated or added in order to more accurately reflect underlying types. The decision rule adapted for this study was to accept the factor analysis version of a scale if the factor loading of the factor explained by the item was greater than .30 (Hair, Anderson, Tatham, & Grablovsky, 1984) and its content coincided with the other items in the scale.

If Victor and Cullen's (1988) factor structure did not emerge, then the scales represented by the factors that did emerge would be investigated with respect to the variables in the study (i.e., ethical behavior, profitability, shrinkage, etc.) based on their underlying theoretical tenets.

Reliability

The items which comprised each scale (from the factor analysis) were tested for inter-item correlation by using Cronbach's alpha. The purpose of this calculation was to measure the internal consistency of the scale items. Coefficient alpha was used to examine the average correlation among the items of a scale in conjunction with the number of items (Carmines & Zeller, 1981). Internal reliability coefficients of around .70 are adequate for research purposes (Nunnally, 1978) in the early development of scales and thus this level was used as the criterion for the acceptability of each scale.

Pearson's Product-Moment Correlations

The variables used in the study were examined for initial evidence of a high degree of multicollinearity among the observed empirically derived dimensions. However, based on previous research by Victor and Cullen and the theoretical possibility of several ethical climates coexisting simultaneously, some evidence of multicollinearity was expected. Multicollinearity exists when there is an empirical correlation between independent variables. However, it is recognized that if the multicollinearity is severe, then the interpretation of the R^2 could be meaningless. Examination for a high degree of multicollinearity entails examination of the correlation matrix of independent variables for correlations around .70 or greater (Gunst & Mason, 1980). Pearson's product-moment correlations were used because they measure the strength of the relationship between two variables, expressed as a standard score. The usefulness of this analysis is that the correlation indicates initial evidence of a high degree of multicollinearity based on the strength of the relationships between the variables. If initial evidence of a high degree of multicollinearity had been found, then the Variance Inflation Factors and Conditions Index Numbers would have been examined. Variance Inflation Factors and Conditions Index Numbers are both equally important tools in the analysis of multicollinearity if a high degree of it is expected (Myers, 1986).

HYPOTHESIS TESTING

The propositions that were discussed in the previous chapter, described relationships between constructs. The propositions are presented here, restated, as hypotheses for the purpose of testing the variables which operationalize the constructs. The specific procedures used to test these hypotheses are given below.

Hypotheses 1 and 2

The mean score for the stores will be higher for an instrumental type of ethical climate than for caring, law and code, rules, or independence types of ethical climates. Hypothesis 1/Proposition 1

The mean score for the credit center and central office will be higher for law and code and rules types of ethical climates than for independence, caring, or instrumental types of ethical climates. Hypothesis 2/Proposition 1

Analysis of variance (ANOVA) was used to compare the three groups (stores, credit centers, and central office) on each of the five empirically-identified types of ethical climates. This procedure was used because it examines differences in sample means. To test each hypothesis, five ANOVAs were conducted to determine if the three groups of employees (i.e., central office, stores, and credit centers) were different from each other on each type of ethical climate. The null hypothesis for each type of climate is shown in Table 1 on page 43.

Table 1. Null hypotheses for testing three groups on each climate in hypotheses 1 and 2

$$H_0 = \mu_1 = \mu_2 = \mu_3$$

Where:

μ_1 = Ethical Climate for Store Employees

μ_2 = Ethical Climate for Credit Center Employees

μ_3 = Ethical Climate for Central Office Employees

Mean differences of the types of ethical climates across groups were compared using Duncan's Multiple Range Test, an a posteriori test of mean comparisons. This test was used so that it would be known precisely which groups were different from each other. According to ethical climate theory, an organization characterized by commissioned-sales would be expected to have an instrumental type of ethical climate while a bureaucratic organization would most likely be characterized by law and code.

It was expected that for the three groups, the instrumentalism average score would be higher for the districts whereas, rules and law and code would be higher for the central office and credit centers. This should occur because the credit centers and central office approximated a bureaucratic organization which, according to the theory, would have a law and code ethical work climate.

Hypotheses 3 - 6

A perception of caring, law and code, service, and independence types of ethical climates is negatively related to unethical behavior at the individual level of analysis after statistically controlling for gender, age, tenure, and education. Hypothesis 3/Proposition 2

A perception of an instrumental type of ethical climate is positively related to unethical behavior at the individual level of analysis after statistically controlling for gender, age, tenure, and education. Hypothesis 4/Proposition 2

A perception of caring, law and code, service, and independence types of ethical climates is negatively related to unethical behavior at the district level of analysis after statistically controlling for gender, age, tenure, and education. Hypothesis 5/Proposition 2

A perception of an instrumental type of ethical climate is positively related to unethical behavior at the district level of analysis after statistically controlling for gender, age, tenure, and education. Hypothesis 6/Proposition 2

These hypotheses consider the relationship between the types of ethical climates and ethical behaviors on two levels of analyses: individual and district. Level of analysis deals with the level or group upon which the "shared perceptions," which in part constitutes climate, are most prevalent. This issue has been grappled with extensively in climate and culture research (Glick, 1985, 1988; Dansereau & Markham, 1987; James & Jones, 1974; James, Joyce, & Slocum, 1987; Jones & James, 1979; Sirotnik, 1980). It is important because it is theoretically possible for a climate to be found within different subsystems of the organization (Powell & Butterfield, 1978). For example, it is conceivable that the relationship between the type of ethical climate and behavior that exists among one level of workers (e.g., salespersons) may not exist at another level (e.g., managers). Therefore, a climate researcher must consider the choice of the appropriate unit of analysis (Hannan & Freeman, 1976) and conceptualize how the study's variables relate to each other across different levels (Rousseau, 1985).

Dansereau et al. (1984) refers to four plausible conditions that may occur with level of analysis: wholes, parts, equivocal, and inexplicable. A whole condition is a focus between groups and a lack of focus within groups. In this situation, differences between groups are valid and within groups

is error. A parts condition exist when the focus is on within-unit differences and not between where within-unit differences are valid and between-unit differences is error. Wholes and parts are group-based effects. The third condition is called equivocal where both between- and within-unit differences are valid. An inexplicable condition exists when there is a lack of within- or between-unit focus; differences between- and within-units represent error. Equivocal and inexplicable conditions are individual-based effects.

Each level of analysis condition -- wholes, parts, equivocal, and inexplicable -- has implications for practice. In a wholes condition the ethical climate perceptions and corresponding ethical behavior would be homogeneous within the districts, but districts would differ in terms of the relationship that is displayed (i.e., intergroup differences). This situation would imply that supervisors should deal with all subordinates within his or her work group the same, because in terms of ethical orientation their behavior is the same. In a parts case, the work groups would be heterogeneous within but each work group would be this way (i.e., homogeneous between). This situation would imply that each supervisor should treat his or her workers differently within their group because the employees respond, behaviorally, in relation to one another and differentially to the supervisor's treatment. On the other hand, faced with the individual-based conditions, supervisors in the equivocal case should deal with subordinates individually and independently of their work group. This is because subordinates in the equivocal condition respond behaviorally according to their own personal ethical orientations and uniquely to the supervisor's treatment. In the inexplicable condition, however, ethical work climate/ethical behavior relationship would neither be meaningful for work groups nor individual subordinates.

Dansereau et al. (1984) also developed a multiple level configuration because different conditions may occur at different levels of analysis. Wholes at a lower level of analysis can be followed by wholes, parts, and equivocal conditions at higher levels of analysis. When this occurs it is known as cross-level wholes, cross-level parts, and level-specific wholes, respectively. Parts can be followed by an inexplicable condition resulting in what is called level-specific parts. Equivocal and inexpli-

cable conditions can be followed by wholes resulting in emergent wholes, or parts, known as emergent parts.

The practical importance of the level of analysis issue is that the level chosen for study and indicated by the results may affect the solution to the problem (Dansereau & Markham, 1987; Yammarino & Dubinsky, 1990). That is, if it is found that a relationship exists at one level of workers, but not at a higher level, then attention can be focused at the level sustaining the relationship. Again, two levels were examined in testing hypotheses 3-6: individual and district.⁶ While other social groups could have been selected, the focus in this study was on the units in the formal organizational structure.⁷

At the individual level of analysis (hypotheses 3-4), multiple regression was used to show the relationship between the perceptions of the types of ethical climates and ethical behaviors. After entering the control variables (gender, tenure, age, and education) into the regression equation, the type of ethical climate was entered. This variable was entered last to determine the impact of that type of ethical climate (after holding constant the control variables) on the dependent variable measuring the specific form of ethical behavior. For example, to assess the impact of a caring type of ethical climate on lying behavior the following procedure was conducted. The control variables -- gender, tenure, age, and education -- would be entered first into the regression equation with the independent variable -- caring -- entered last. The dependent variable used in this equation would be lying. From this equation, the impact of lying behavior on employees who perceived a caring ethical climate was assessed. For each of the empirically-derived ethical climates and each of the

⁶ Between the individual and district levels of analysis is the store level of analysis which could not be examined because of employees historical reluctance to provide information that would make it easier for them to be identified.

⁷ The central office and credit centers were not used because the differences in organizational levels within each of three groups -- credit centers, central office, and districts -- would have made conducting comparable analysis upon which inferences would be drawn nearly impossible given the limited amount of information that could be obtained from the employees.

four ethical behaviors, an equation was formed and analyzed. The multiple regression equation used in this analysis is shown in Table 2 on page 48.

It was expected that at the individual level of analysis, there would be a positive relationship between employees who perceived a caring, law and code, rules, or independence type of ethical climate and ethical behavior and a negative relationship between employees who perceived an instrumental climate and ethical behavior. These results would have indicated that as employee perceptions, regardless of group membership, were more toward non-instrumental types of ethical climates, their behavior was more ethical. As their perceptions of the climate became more instrumental, their behavior was less ethical. This finding would be consistent with ethical climate theory since instrumentalism reflects egoism -- a concern for one's exclusive self-interest regardless of its impact on others. The other types of ethical climates referred to ethical theories which took into consideration the interests of others.

Table 2. Regression equation for testing hypotheses 3 and 4

$$y = \alpha + B_1x_1 + B_2x_2 + B_3x_3 + B_4x_4 + B_5x_5 + B_6x_6 + B_7x_7 + B_8x_8 + B_9x_9 + \varepsilon$$

Where:

Y_1 = Behavior: Lying

Y_2 = Behavior: Stealing

Y_3 = Behavior: Following Rules

Y_4 = Behavior: Being an Accomplice

α = The y Intercept

B = Slope

x_1 = Gender

x_2 = Age

x_3 = Tenure

x_4 = Education

x_5 = Ethical Climate: Caring

x_6 = Ethical Climate: Law and Code

x_7 = Ethical Climate: Independence

x_8 = Ethical Climate: Rules

x_9 = Ethical Climate: Instrumental

ε = Error

The next level of analysis examines the relationship between ethical climates and behavior with respect to group membership as measured at the district level. This level was considered in hypotheses 5-6.

To test the hypotheses at the district level, the Within and Between Analysis of Variance (WABA) technique was used. WABA is an inferential/statistical technique developed by Dansereau, Alutto,

and Yammarino (1984) and employed in Markham (1988), McKee (1988), Yammarino and Naughton (1988), and Yammarino and Dubinsky (1990). This technique identifies between-unit and within-unit variation and covariation and provides information for drawing conclusions about the ethical work climate/ethical behavior relationship for individuals or their work groups.

First, it was determined whether differences existed between districts on both ethical climates and ethical behaviors. This was examined by conducting WABA I. WABA I focused on the between-group and within-group variation in one variable. WABA I comprised two steps which tested for statistical and practical significance. As part of the first step of WABA I in examining the groups, it was determined whether there were significant differences as indicated by the F-value, between the 40 districts on each type of ethical climate. There were 40 districts investigated in this study; thus, the between-group condition of all employees in each of the 40 districts was examined by ANOVA, which was part of WABA I. The ANOVA equation for testing between group differences in the ethical climates is shown in Table 3 on page 49. Table 4 on page 50, shows the ANOVA equation for testing between-group differences in ethical behavior.

Table 3. Null hypothesis for between-group differences based on ethical climate

$$H_0 = \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5$$

Where:

μ_1 = Caring type of ethical climate

μ_2 = Law and Code type of ethical climate

μ_3 = Rules type of ethical climate

μ_4 = Independence type of ethical climate

μ_5 = Instrumental type of ethical climate

Table 4 on page 50, shows the ANOVA equation for testing between-group differences in ethical behavior.

Table 4. Null hypothesis for between-group differences based on unethical behavior

$$H_0 = \mu_1 = \mu_2 = \mu_3 = \mu_4$$

Where:

μ_1 = Lying unethical behavior

μ_2 = Stealing unethical behavior

μ_3 = Being an accomplice unethical behavior

μ_4 = Failing to follow orders unethical behavior

Finding between-group differences would suggest that potential similarity existed among the perceptions of the group members. The reason being that significant between-group differences could not have been found unless there was also convergence or internal consistency within units. This portion of WABA which uses ANOVA is basically the traditional method employed to examine for significant differences between work groups. In fact, this was the methodology Victor and Cullen (1988) used to test for differences between the different organizations and the different types of ethical climates (see Victor & Cullen, 1988). As noted by Victor and Cullen, such a finding provides support that ethical climates are "sufficiently strong and identifiably different to produce significant discrimination among firms" (1988, p. 114).

The second part of WABA I, however, examined differences between groups beyond the point of statistical significance found by ANOVA and examined whether any significant differences found between units also had practical significance. In this second part of WABA I, the between-group variation must have been significantly larger than the within-group variation. This is called the between-eta denoted by the symbol η_{BX} while the within-group variation is termed the within-eta and denoted by the symbol η_{WX} . The metric for examining the strength of the variation and determining whether the between-eta or the within-eta best represents the type of variation occurring is called the E ratio.

Statistically, the E ratio is the between-eta divided by the within-eta ($\frac{\eta_{BX}}{\eta_{WX}}$).⁸ If the ratio was equal to or greater than 1.303, this means that the between-group variation was more highly correlated with the total variation and thus district or supervisory group membership affects the value of the variable. If, however, the E ratio was equal to or less than .767, this would have indicated that the variance was not related to group membership and instead lower level (store or individual) differences were responsible for most of the variation occurring. Yet, if the E ratio was 1, the total variation would have been comprised equally of between-group and within-group variation (Dansereau et al., 1984). If, as a result of conducting the above procedures it was found that there was statistical and practical significant between-group variation, then there would be initial support showing that the social unit examined was an appropriate aggregation to assess the shared perceptions of group members.

WABA II examined the relationship between two variables and indicated whether there was significant between-group or within-group covariation. This step in WABA was a test of hypotheses 5-6. The first step of this procedure was conducted in the same way hypotheses 3 and 4 were analyzed. The means of the ethical climates and ethical behavior scores for each district were entered separately into the multiple regression equation (after the controls) as shown in Table 5 on page 52. A between-group covariation would have indicated that there was congruency between group members' perceptions (as indicated on the questionnaires) and their ethical behavior.

⁸ The E ratio can be computed from the results of ANOVA. The square root of R^2 is the between-eta correlation. This is because statistical cells have been aligned with districts in this design. Thus, actual response is the total variation and predicted response (the model) is the between-unit variation. On the other hand, The square root of $1 - R^2$ represents the within-eta correlation. By observing R^2 , therefore, it is possible to determine whether the between- or within-unit variation is larger.

Table 5. Regression equation for testing hypotheses 5 and 6

$$\bar{y}_k = \alpha B_k \bar{x}_k + \varepsilon$$

Where:

\bar{Y}_1 = Average Behavior: Lying

\bar{Y}_2 = Average Behavior: Stealing

\bar{Y}_3 = Average Behavior: Following Rules

\bar{Y}_4 = Average Behavior: Being an Accomplice

α = the y intercept

B = slope

\bar{x}_1 = Average Gender

\bar{x}_2 = Average Age

\bar{x}_3 = Average Tenure

\bar{x}_4 = Average Education

\bar{x}_5 = Average Ethical Climate: Caring

\bar{x}_6 = Average Ethical Climate: Law and Code

\bar{x}_7 = Average Ethical Climate: Independence

\bar{x}_8 = Average Ethical Climate: Rules

\bar{x}_9 = Average Ethical Climate: Instrumental

ε = Error

The group averages for the two variables would have been, ideally, significantly different from those of other districts and the amount of variation within the group and away from the mean would have been small. In other words, to obtain evidence that aggregation was appropriate at the district level, one must have examined the components of the total correlation (eta correlations and within- and between-group correlations) as shown in the covariance equation in Table 6 on page 55. For this case to have existed, the between-unit components must have predominated over the within-unit

components. This means that the between-eta correlations for the variables representing ethical climates and ethical behaviors must have been significantly larger than the corresponding within-eta correlations and the between-unit covariation must have been significantly larger than the within-unit covariation. Mathematically, the difference and magnitude of the between and within correlations are interchangeable because the magnitude of one correlation increases as the other decreases which causes a concomitant change in the difference between them (Dansereau et al., 1984). For this reason, difference and magnitude tests of both practical and statistical significance have been developed for testing WABA II.

The statistic for assessing practical significant *differences* between within- and between-unit correlations is the A-value. The range of A is from -1.57 to 1.57 radians where a positive value indicates a between-unit correlation is larger than the within-unit correlation. The criteria used to make inferences concerning the four possible conditions -- wholes, parts, equivocal, or inexplicable -- is based on the 15° and 30° tests. An A-value greater than or equal to 15° (or .26) is indicative of wholes and less than or equal to 15° (or .26) indicates parts. For the 30° test, if A is greater than or equal to 30° (or .52) wholes is indicated, and if A less than or equal to 30° (or .52), parts is indicated. All other values indicate equivocal and inexplicable conditions.

The Z-value is the statistic used in the difference test for statistical significance. A Z score is obtained by taking the difference between obtained within-unit and between-unit correlations to determine the likelihood that the obtained differences are due to statistical artifacts. The decision criteria for wholes condition is Z values greater than or equal to 1.66 ($p < .05$) and 2.33 ($p < .01$). Z values less than or equal to -1.66 and -2.33 represent a parts condition. Values between these points are considered as equivocal or inexplicable.

The R test is used to examine the practical significance of the *magnitude* of relationships independent of degrees of freedom. The 15° and 30° tests are used to determine if the magnitude is practically significant. If R is greater than or equal to 15° or .27 then a wholes condition is inferred,

and if R is less than or equal to 15° or .27 parts is indicated. For the 30° test, R must be greater than or equal to 30° or .58 for a wholes inference, and less than or equal to 30° or .58 for a parts inference. All other values indicate inexplicable or equivocal conditions.

Statistical significance for the magnitude test is determined by t . The t value provides a test of whether a correlation is greater than zero based on statistical artifacts. This test is only useful in rejecting the hypothesis that a correlation equals zero, not for asserting that a correlation equals zero. The distribution of t values can be obtained from an F table based on the between- and within-unit correlations with 1 and $J - 2$, and, 1 and $N - J - 1$ degrees of freedom, respectively.

In short, inferences made from WABA II are based on difference and magnitude tests of practical and statistical significance. In all cases, both practical and statistical test are run because significant findings with one test are irrelevant without the other test. The difference test indicates significant within- or between-unit differences by the A value (practical significance) and Z value (statistical significance). The practical and statistical significance of the magnitude of the correlations is examined by the R and t values, respectively. Based upon the findings with each difference and magnitude test, could inferences be appropriately determined as evidence of ethical climates existing at the level of the district. If support was found for significant between-group differences (wholes), as expected, the result would lend support that the chosen group for aggregation (the districts) was correct by showing a relationship between the type of climate and predicted behavior (Joyce & Slocum, 1984). However, if significant within-group covariation was found, this would have indicated that neither the perceptions of the group members regarding their ethical climate(s) nor their corresponding ethical behaviors were similar to one another. Significant between-group covariation was expected.

Table 6. Covariance equation

$$\eta_{WX}\eta_{WY}r_{WXY} + \eta_{BX}\eta_{BY}r_{BXY} = r_{TXY}$$

Where:

$\eta_{WX}\eta_{WY}r_{WXY}$ = Within-Group Component

$\eta_{BX}\eta_{BY}r_{BXY}$ = Between-Group Component

r_{TXY} = Total Correlation

In summary, hypotheses 3 - 6 are tested by a multiple-step process that examines the relationship between the ethical climates and ethical behaviors at the individual and district levels of analysis. The first step involves determining the relationship between ethical climate and ethical behavior regardless of an employee's group membership (hypotheses 3 and 4). Multiple regression was used in this step for all employees in the stores to examine the ethical climate/behavior relationship at the individual level. The next step was to determine whether the district was an appropriate aggregation for the study of ethical climates (hypotheses 5-6). WABA was the statistical technique used in this step. WABA I was used to determine whether statistical and practical significance existed between districts based on ethical climate and behavior. Statistical significance was examined by the F-value, while practical significance was determined based on whether the between-etats were larger than the within-etats as indicated by the E ratio. WABA II examined the relationship between the ethical climates and ethical behaviors at the district level by examining the practical and statistical difference in, and magnitude of, the between- and within-group correlations. The A-values and Z-values assessed practical and statistical difference, respectively. Practical and statistical magnitude was determined by examining the R and *t* values, respectively. The findings from conducting these analytical procedures will lend support for or against the presence of ethical climate at a level of analysis by examining the relationship between climate perceptions and ethical behavior between and within different work groups.

Hypothesis 7

There is a statistically significant difference between the ethical climate of the supervisors and their subordinates. Hypothesis 5/Proposition 3

As discussed in Chapter Two, supervisors have been shown to have a significant impact on employee behavior, particularly with respect to ethical concerns. Hypothesis 7 considers the impact of ethical climate on ethical behavior based on supervisory influence. This is investigated by examining the ethical climate and ethical behavior of all supervisors in each district and comparing the results with the ethical climate and behavior from the supervisors' corresponding subordinate group. The findings may potentially provide support for the degree of supervisory influence on subordinate behavior.

Differences between the supervisors and their subordinates on the ethical climates and behaviors were examined by conducting *t* tests for each type of climate and behavior as shown in Table 7 on page 56

Table 7. Null hypothesis for testing differences between supervisors and their subordinates for hypothesis 7

$$H_0 = \mu_a = \mu_b$$

$$H_0 = \mu_c = \mu_d$$

Where:

μ_a = Types of ethical climates for supervisors

μ_b = Types of ethical climates for supervisors' subordinates

μ_c = Types of ethical behaviors for supervisors

μ_d = Types of ethical behaviors for supervisors' subordinates

It was expected that differences would not be found between supervisors and their corresponding subordinates on each of the types of ethical climates and behaviors. This was because, as discussed earlier, of the impact that supervisors have been shown to have on the ethical behavior of their employees (Posner & Schmidt, 1982; 1984; Andrews, 1989; Zey-Ferrell & Ferrell, 1982).

Hypotheses 8 and 9

Profit is negatively related to instrumental ethical climates and positively related to caring, independence, service, and law and code ethical climates after controlling for gender, age, tenure, and education. Hypothesis 8/Proposition 4

Shrinkage is positively related to instrumental ethical climates and negatively related to caring, independence, service, and law and code ethical climates after controlling for gender, age, tenure, and education. Hypothesis 9/Proposition 4

These hypotheses are tested by simple linear regression to show the relationship between the average type of ethical climate in the districts and district performance -- profitability and shrinkage (adjusted for the number of employees in each district). The regression equation is shown in Table 8 on page 58. For each of the 40 districts, after the weighted mean for each control variable was entered, the district's weighted mean score for each empirically-identified type of ethical climate was entered into the regression equation as the independent variable to be regressed, separately, on each of the dependent variables -- total profitability and shrinkage -- for the district. From this equation, the impact of type of ethical climate on district performance was assessed. It was expected that the findings would have revealed that profitability was negatively related and shrinkage was positively related to an unethical (i.e., instrumental) climate while the reverse would have held true for the other types of ethical climates. These findings would have indicated that as the ethical climate became more unethical (i.e., instrumental) the profitability of the district decreased and the shrinkage increased. For the other types of ethical climates, however, profitability would have had

to have increased and shrinkage decreased as the ethical climate became more ethical. These findings would have been consistent with ethical climate theory which purports that an instrumental type of ethical climate would reflect exclusively self-interested behavior without regard for the interests of others. Therefore, individuals in this type of climate would have been more likely to have engaged in whatever behavior was necessary in order to promote their own exclusive self-interests.

Table 8. Regression equation for testing hypotheses 8 and 9

$$y = \alpha + B_1\bar{x}_1 + \varepsilon$$

Where:

Y_1 = Total profit for each district

Y_2 = Total shrinkage for each district

α = the y intercept

B = Slope

\bar{x}_1 = Average Gender

\bar{x}_2 = Average Age

\bar{x}_3 = Average Tenure

\bar{x}_4 = Average Education

\bar{x}_5 = Average Ethical Climate: Caring

\bar{x}_6 = Average Ethical Climate: Law and Code

\bar{x}_7 = Average Ethical Climate: Independence

\bar{x}_8 = Average Ethical Climate: Rules

\bar{x}_9 = Average Ethical Climate: Instrumental

ε = Error

Summary

In this chapter the sample utilized to conduct the study was described first. Next, a description of how the constructs were operationalized was presented. Ethical climate was measured by the Ethical Climate Questionnaire (Victor & Cullen, 1987), ethical behavior was measured by The Work Situation Questionnaire (Shepard & Hartenian, 1990), and firm performance was measured by obtaining company profit and shrinkage data. The final portion of the chapter discussed the methodology. In order to examine the propositions presented in Chapter Two, they were restated as hypotheses suitable for testing. The statistical methods for examining the properties of each measure and for testing each hypothesis was described.

CHAPTER FOUR: RESULTS

This chapter opens with a review of the results of the analyses performed prior to testing the hypotheses. This includes the results of the pretest, data collection procedure, descriptive statistics of the sample, and results of factor analysis, Cronbach's alpha, and Pearson's product-moment correlations. The remainder of this chapter presents the results of the tests of the hypotheses.

INITIAL ANALYSES

Pretest

The questionnaire and data collection procedure were pretested with a sample of 18 subjects employed in a large state university. The data collection procedure was conducted in a similar manner as planned for the study. Packets containing the questionnaire, sample cover letters from both the company and researchers, and instructions for completing the survey were given to the participants in the pretest. The participants in the pretest were made aware that it was a pretest and were asked to scrutinize all the materials they had been given. No instructions concerning how to complete, or return, the questionnaire were given to the participants except for the written instructions included in each packet. The participants returned the questionnaires in self-addressed envelopes to the principal investigator by mail.

An important aspect of the pretest was the employees' reactions to the questionnaire. It was expected that much useful information would come from these individuals regarding problems with questionnaire format, question content, response format, as well as an indication of the time necessary to complete the instrument. The pretesting went smoothly. Problems found in the format and subject matter proved to be minor -- modifications were made accordingly. Of particular concern to the researchers, was the clarity of the behavioral vignettes. The participants in the pretest did not indicate that they had had any problems understanding the vignettes or the set of questions which followed each situation.

Data Collection Procedure

Data collection was conducted as planned. Packets were mailed to each employee's home in the sample. In addition to the questionnaire, included in the packets were instructions for completing the instrument as well as a letter from the researchers to assure the participants that all individual responses would be held in confidence. A letter from company management was also included in the packet to provide official company endorsement of the survey and to encourage employees to complete the instrument.

An unexpected event delayed the start of data collection. The company was bought by a foreign company in a friendly takeover. The new owners indicated to employees that only minimal changes would occur initially. Approximately one month after the takeover had been made public, data collection commenced. The researchers as well as company management felt that the one month wait was adequate time for employees to "digest" the initial shock of the takeover.

Descriptive Statistics of the Sample

Questionnaires were mailed to approximately 4800 employees. This total included approximately 4400 questionnaires which were mailed to store employees in 40 districts, approximately 200 em-

ployees in the central office (headquarters), and approximately 100 employees at each of the two credit centers. Of the total questionnaires distributed, 16% were returned to the researchers as shown in Table 9 on page 62.

<u>Group</u>	<u>Number Returned</u>	<u>Response Rate (rounded)</u>
Jewelry Store Employees	n = 525	12%
Credit Center Employees	n = 50	25%
Central Office Employees	n = 64	32%
Unidentified	n = 118	
Overall	n = 757	16%

Of the 757 questionnaires returned, 118 respondents did not indicate where within the organization they worked. Analysis were run to determine whether employees who did not identify themselves were from a different or the same population as employees who indicated where they worked in the organization. The results of a *t* test showed that there were nonsignificant differences between the two groups based on tenure, level of education, age and gender. As shown in Table 10 on page 63, both employees who identified their workgroup and those who did not were on average between 29 and 38 years old, had some college or technical school, and had been employed with the organization from two to three years. There were 204 men in the group of employees who identified themselves (32% of the group) compared to 34 men in the other group (29% of the group). In addition to assessing whether significant differences existed between these groups on demographic variables, differences between employees who identified themselves and those who did not were examined on both the ethical climate and behavior variables (see Appendix C). There were no statistically significant differences between the two groups on these variables.

Descriptive statistics were also calculated for the sample according to the different units examined in the study. Demographics for the sample according to group -- stores, credit center, and central office -- are found in Appendix D. Demographics of store employees by district are found in Appendix E.

Of the 40 districts from which data were obtained, only 36 could be used in the analyses because of missing data. For this reason, analysis was based on 36 districts consisting of 413 employees. Of the 413 employees from the stores, 211 were managers, assistant managers, or management trainees. The remaining 202 employees were full- or part-time salespersons.

Table 10. Comparison of demographics of employees who identified their work group and employees who did not

<u>Variable</u>	<u>Group</u>	<u>n</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>t</u>	<u>p > t</u>
Tenure	Unidentified	118	2-3 years	1.854	- .466	.642
	Identified	639	2-3 years	1.772		
Education	Unidentified	118	some college/tech	.723	- .158	.874
	Identified	639	some college/tech	.820		
Age	Unidentified	118	29-38 years	1.365	1.080	.282
	Identified	639	29-38 years	1.233		
Gender	Unidentified	118	.262*	.429	-1.323	.189
	Identified	639	.319	.473		

* Females = 0, Males = 1

Factor Analysis

Factor analysis using principal components solution with Varimax rotation was applied to the 36 items representing the nine theoretical types of ethical climates (four items for each type of climate). As stated in Chapter 3, this was done in order to see if the results would replicate the five factors found by Victor and Cullen. All of the factor loadings were within the .30 criterion set in chapter 3 for each item. None of the items "straddled" two factors. Moreover, As shown in Table 11 on page 65, basically, four of the five factors that Victor and Cullen found were replicated. (The items in Table 3 have been paraphrased because of limited space in the Table.) A factor that was different from Victor and Cullen's was comprised of items which were included in their law and code and caring factors. The content of these items referred to customer service and thereby was named

"service". Because the service type of ethical climate was not empirically identified in Victor and Cullen's research, it was not included in the propositions nor hypotheses presented earlier in previous chapters. Subsequent hypotheses will include a service type of ethical climate consistent with its utilitarian and deontological ethical derivation. On the other hand, a rules type of ethical climate will not be included in the hypotheses since it did not emerge as a separate factor after conducting factor analysis.

Table 11. Factor structure for the ethical climate items.

<u>ITEMS</u>	<u>FACTORS</u>				
1. CARING					
• people look out for each other's good*	.70	.20	.14	.05	-.12
• best for each individual is primary	.69	.10	.16	.22	-.04
• important concern is good of all people	.69	.19	.20	.10	-.02
• major consideration what's best for all	.68	.27	.12	.22	-.02
• people concerned about best for all	.65	.17	.14	.23	-.06
• each individual cared for in decisions	.60	.20	.36	.13	-.06
• major concern what's best for others	.54	.14	.21	.16	.03
• people view team spirit as important	.52	.22	.32	-.03	-.07
• strong responsibility for community	.50	.21	.41	.01	-.04
• efficient solutions to problems sought	.50	.33	.46	.08	-.02
• efficient way is always right way	.46	.39	.26	-.03	.20
• responsibility to consider efficiency	.45	.24	.32	-.03	.16
• people concerned best for themselves	-.49	-.11	-.09	.27	.28
• people protect own interests	-.55	-.26	-.18	.31	.36
• people out for themselves	-.67	-.19	-.16	.21	.35
2. LAW AND CODE					
• people follow legal standards	.20	.71	.35	.10	-.15
• everyone sticks by rules and procedures	.16	.71	.13	-.01	.01
• important to strictly follow rules	.18	.70	.04	-.08	.04
• people comply with law over and above	.12	.67	.35	.17	-.06
• successful people go by book	.48	.64	-.03	-.06	.08
• successful people obey policies	.50	.60	-.06	-.06	.09
• law or ethical code of profession	.30	.54	.31	.16	-.08
• first whether decision violates law	.08	.41	.21	.14	.08
3. SERVICE					
• effects of decisions on customer	.41	.25	.61	.08	-.08
• people concerned about customer	.41	.14	.54	-.00	-.03
• always do what is right for customer	.32	.33	.51	.10	-.12
• persons expected to work efficiently	.32	.40	.43	.02	.12
4. INDEPENDENCE					
• people guided by own personal ethics	.07	.11	.03	.61	-.04
• person's own sense of right and wrong	.12	.03	.11	.49	.13
• expected to follow own moral beliefs	.31	.18	.08	.48	-.18
• each person decides right and wrong	-.08	-.26	-.07	.42	.18
5. INSTRUMENTAL					
• expected to do anything for company	.03	.06	.04	.03	.53
• concerned with company interest only	.16	.06	.09	-.07	.47
• work substandard only when hurt company	-.13	-.02	-.05	.04	.45
• no room for own personal morals	-.25	-.13	-.10	-.26	.40
• decisions viewed in terms of profit	-.14	.03	-.07	.16	.34

*Items are paraphrased, see Appendix A for the complete wording of each item.

Cronbach's Alpha

The internal consistency of the items in each of the five scales was tested by using Cronbach's alpha. Table 12 on page 66 shows the alphas for each of the scales. The caring, law and code, and service scales all had high alpha coefficients. The instrumental and independence scales were relatively lower, yet, sufficient for establishing internal consistency (Nunnally, 1978).

Cronbach's alpha was also used to test for the internal consistency of the items in each of the scales designed to represent the four different types of unethical behavior. As shown in Table 12 on page 66, all of the behavioral scales met Nunnally's criterion of .70. The lowest alpha was for the scale labeled stealing ($\alpha = .72$) and the highest alpha was for scale which represented obeying company rules ($\alpha = .82$).

Table 12. Cronbach's alpha for the ethical climate and behavioral scales.

<u>CLIMATE SCALES</u>	<u>ALPHA</u>
1. Caring	.92
2. Law and Code	.88
3. Service	.85
4. Independence	.69
5. Instrumental	.72
<u>BEHAVIORAL SCALES</u>	
1. Stealing	.72
2. Lying	.76
3. Failing to follow orders	.82
4. Being an accomplice	.81

Pearson's Product-Moment Correlations

Pearson's product-moment correlations were examined to determine the strength of the relationships between the scales. The reason for this was to determine to what extent the scales were in-

dependent, although, based on previous research, the scales were not expected to have complete independence (Victor & Cullen, 1987; 1988). This was more important for the behavioral scales since they were not identified by factor analysis and since, theoretically, organizations can have combinations of ethical climates (Victor & Cullen, 1987; 1988). Pearson correlation coefficients were obtained for all the ethical climate and behavioral scales and the control variables. As shown in Table 13 on page 67, the highest intercorrelations were between the service and caring, ($r = .68$) and, service and law and code ($r = .62$), and caring and law and code ($r = .60$) types of climates; these correlations were less than the .70 criterion for initial evidence of multicollinearity (Gunst & Mason, 1980). This finding is similar to the previous findings of Victor and Cullen (1987;1988).

Table 13. Pearson correlation coefficients for all the variables.

n = 757

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. EDUCATION													
2. AGE	-.06												
3. TENURE	-.01	.38***											
4. GENDER	.14***	.091*	.20***										
5. LAW	-.22***	.12**	-.05	-.12**									
6. CARING	-.24***	-.01	-.05	-.07*	.60***								
7. INDEPEND	-.01	.05	-.03	-.01	.13**	.33***							
8. INSTRUM	-.00	-.02	.03	.03	-.04	-.01	-.01						
9. SERVICE	-.26***	.07*	.04	-.11**	.62***	.68***	.16***	-.09**					
10. STEALING	.12**	-.10**	-.03	.04	-.21***	-.13**	-.07*	.04	-.23***				
11. LYING	.10**	-.11**	-.02	-.05	-.18***	-.14**	-.05	.07	-.17***	.38***			
12. OBEYING	.08*	-.02	.06	.04	-.17***	-.12**	-.02	.10**	-.13**	.37***	.37***		
13. ACCOMP	.04	.01	.07	.08*	-.08*	-.10**	-.06	.11**	-.14***	.24***	.11**	.31***	

* P < .05; ** P < .01; *** P < .0001

The factor analysis, which resulted in five types of ethical climates, was used to establish the climate scales which were shown to have an adequate degree of internal consistency. The behavioral scales measuring the four types of ethical behavior were also shown to have an adequate degree of internal consistency. An observation of the Pearson correlation coefficients did not provide any evidence of a high degree of multicollinearity. In addition, the profit and shrinkage data which were used to

test hypotheses 8 and 9 were shown to be normally distributed. Based on all of these initial findings, the testing of the hypotheses was begun.

HYPOTHESES TESTS

Hypotheses 1 and 2

The mean score for stores will be higher for an instrumental type of ethical climate than caring, law and code, service, or independence types of ethical climates.

The mean score for the credit center and central office will be higher for law and code and service types of ethical climates rather than independence, caring, or instrumental types of ethical climates.

The means for each of the five ethical climate scales for the three groups (stores, credit centers, and central office) were compared using ANOVA. Prior to examining the results of ANOVA, since the sample sizes were not equal for the three groups (stores: $n = 525$; credit centers: $n = 50$; central office: $n = 64$), the validity of the equal variance assumption was examined. This was conducted with Hartley's Test, a statistical test of the null hypothesis $H_0 = \sigma_1^2 = \sigma_2^2 = \sigma_3^2$ (Ott, 1984). The equation used was $F_{\max} = \frac{s_{\max}^2}{s_{\min}^2}$, where, s_{\max}^2 and s_{\min}^2 were the largest and smallest of the s^2 s, respectively. H_0 was rejected if F exceeded the tabulated value of F for $\alpha = .05$, t , $df_2 = n - 1$. For each climate, H_0 failed to be rejected therefore, examination of the results of ANOVA for the three groups was continued.

Significant differences between the groups on caring, law and code, and service types of ethical climates were identified. As shown in Table 14 on page 69, the central office ($\bar{x} = 2.65$) was significantly lower than the stores ($\bar{x} = 2.90$) and credit centers ($\bar{x} = 2.88$) on the caring climate. The central office was also significantly lower than ($\bar{x} = 3.34$) from the stores ($\bar{x} = 3.74$) and

credit centers ($\bar{x} = 3.81$) on the law and code type of ethical climate. For the service ethical climate, the central office ($\bar{x} = 3.69$) was again significantly lower than the stores ($\bar{x} = 3.90$) and credit centers ($\bar{x} = 3.74$). There were no significant differences for the independence and instrumental types of ethical climates between the three groups. Overall, the stores and credit centers had the highest ethical climate mean scores on the instrumental climate. The central office had the lowest mean scores for caring, law and code, and service types of ethical climates. The stores had the highest mean score on caring and service climates. The credit centers had the highest mean score on the law and code ethical climate.

Hypothesis 1 was rejected. It had been expected that the mean score for the instrumental type of ethical climate would be the highest for the stores compared to the other groups. However, the credit centers had the same mean score. Moreover, there were no significant differences between the groups for an instrumental ethical climate.

Hypothesis 2 was partially supported. It was hypothesized that law and code ethical climate would have the highest means for the credit center and central office. The mean for the law and code ethical climate was the highest for the credit centers (as hypothesized), but the smallest for the central office.

Table 14. Results of ANOVA for testing hypotheses 1 and 2.

CLIMATE SCALE	STORES (N = 525)	CREDIT (N = 50)	CENTRAL (N = 64)	F	P <
1. Caring	2.90	2.83	2.65	6.10	.0024
2. Law and Code	3.74	3.81	3.34	7.00	.0010
3. Service	3.90	3.74	3.69	4.28	.0142
4. Independence	2.36	2.39	2.41	.11	.8981
5. Instrumental	2.57	2.57	2.34	1.77	.1716

Hypotheses 3 and 4

Caring, law and code, service, and independence ethical climates are negatively related to unethical behavior at the individual level of analysis after statistically controlling for gender, tenure, level of education, and age.

An instrumental type of ethical climate is positively related to unethical behavior at the individual level of analysis after statistically controlling for gender, tenure, level of education, and age.

Hypotheses three and four were tested at the individual level of analysis to show the relationship between the different types of ethical climates and ethical behaviors for store employees regardless of the particular district (or store) to which the employees belonged. The control variables -- gender, tenure, age, and education -- were entered first into the multiple regression equations followed by a type of ethical climate. This analysis was performed with each of the five ethical climates for each of the four dependent variables -- ethical behaviors. Thus, 20 regressions were conducted. The assessment of the contribution of the climate variable was made by examining the Type III Sum of Squares because it shows the effect of entering a regressor last into the model. A regressor will only be significant if it makes a significant contribution in the presence (after entry) of the other regressors -- the control variables. Thus, the r^2 for the unique contribution of the climate variable in each equation was used to determine its impact on behavior.

Table 15. Sum of Squares "F" Test for instrumental and lying

DEPENDENT VARIABLE: LYING				n = 413	
SOURCE	DF	SUM OF SQUARES	MEAN SQUARE		
MODEL	5	0.4307573	0.0861515		
ERROR	407	10.5013035	0.0258017		
CORRECTED TOTAL	412	10.9320608			
MODEL F = 3.34		PR > F = 0.0057			
R-SQUARE = 0.039403					
SOURCE	DF	TYPE I SS	F VALUE	PR > F	
GENDER	1	0.1848746	7.17	0.0077	
AGE	1	0.1201508	4.66	0.0315	
TENURE	1	0.0037736	0.15	0.7023	
EDUCATION	1	0.1211912	4.70	0.0308	
INSTRUMENTAL	1	0.0007672	0.03	0.8632	
SOURCE	DF	TYPE III SS	F VALUE	PR > F	PARTIAL R-SQUARE
GENDER	1	0.1679171	6.51	0.0111	.015
AGE	1	0.0967012	3.75	0.0536	.009
TENURE	1	0.0049720	0.19	0.6609	.000
EDUCATION	1	0.1217246	4.72	0.0304	.011
INSTRUMENTAL	1	0.0007672	0.03	0.8632	.000
PARAMETER	ESTIMATE	T FOR H0: PARAMETER = 0	PR > T	STD ERROR OF ESTIMATE	
INTERCEPT	-0.00359387	-0.07	0.9478	0.05480990	
GENDER	-0.04534332	-2.55	0.0111	0.01777421	
AGE	-0.01445181	-1.94	0.0536	0.00746502	
TENURE	0.00225074	0.44	0.6609	0.00512725	
EDUCATION	0.02178806	2.17	0.0304	0.01003122	
INSTRUMENTAL	0.00176930	0.17	0.8632	0.01026048	

In the relationship between lying behavior and the ethical climates, all of the climates were significantly related to lying except instrumental and caring. As shown in Table 15 on page 71, for an instrumental climate, the F value for the full model was 3.34 and significant at $p > .006$. The R^2 for the full model was .039 and the partial R^2 for the unique contribution of the climate variable -- instrumental -- was .000 and nonsignificant. Of the control variables, three were significant -- gender ($p > .01$), age ($p > .05$), and education ($p > .03$). The results of an independence climate are found in Table 16 on page 72. The F value for the full model was 4.18 with a significance level of .001. The partial R^2 for the independence variable was .009 and significant at $p > .04$. As hypothesized the independence climate was negatively related to lying behavior. Only one control variable, gender ($p > .006$), made a significant contribution to the model.

Table 16. Sum of squares "F" test for independence and lying

DEPENDENT VARIABLE: LYING				n = 413	
SOURCE	DF	SUM OF SQUARES	MEAN SQUARE		
MODEL	5	0.5336066	0.1067213		
ERROR	407	10.3984542	0.0255490		
CORRECTED TOTAL	412	10.9320608			
MODEL F = 4.18 PR > F = 0.0010					
R-SQUARE = 0.048811					
SOURCE	DF	TYPE I SS	F VALUE	PR > F	
GENDER	1	0.1848746	7.24	0.0074	
AGE	1	0.1201508	4.70	0.0307	
TENURE	1	0.0037736	0.15	0.7009	
EDUCATION	1	0.1211912	4.74	0.0300	
INDEPENDENCE	1	0.1036164	4.06	0.0447	
SOURCE	DF	TYPE III SS	F VALUE	PR > F	PARTIAL R-SQUARE
GENDER	1	0.1969863	7.71	0.0057	.018
AGE	1	0.0942275	3.69	0.0555	.009
TENURE	1	0.0032016	0.13	0.7235	.000
EDUCATION	1	0.0739988	2.90	0.0895	.007
INDEPENDENCE	1	0.1036164	4.06	0.0447	.009
PARAMETER	ESTIMATE	T FOR H0: PARAMETER = 0	PR > T	STD ERROR OF ESTIMATE	
INTERCEPT	0.11002435	1.54	0.1240	0.07138163	
GENDER	-0.04942056	-2.78	0.0057	0.01779823	
AGE	-0.01422802	-1.92	0.0555	0.00740871	
TENURE	0.00180238	0.35	0.7235	0.00509158	
EDUCATION	0.01737154	1.70	0.0895	0.01020735	
INDEPENDENCE	-0.03045981	-2.01	0.0447	0.01512516	

The caring climate was not shown to be significantly related to lying behavior as shown in Table 17 on page 73. The F value for the full model was 3.34 and significant at $p > .006$ with an R^2 of .039. The partial R^2 for the caring variable was .000 (n.s.). As previously found with lying behavior and the instrumental and independence climates, the significant control variables were gender ($p > .01$), age ($p > .05$), and education ($p > .03$).

Table 17. Sum of Squares "F" Test for caring and lying

DEPENDENT VARIABLE: LYING

n = 413

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE
MODEL	5	0.4304709	0.0860942
ERROR	407	10.5015899	0.0258024
CORRECTED TOTAL	412	10.9320608	

MODEL F = 3.34 PR > F = 0.0058

R-SQUARE = 0.039377

SOURCE	DF	TYPE I SS	F VALUE	PR > F
GENDER	1	0.1848746	7.17	0.0077
AGE	1	0.1201508	4.66	0.0315
TENURE	1	0.0037736	0.15	0.7023
EDUCATION	1	0.1211912	4.70	0.0308
CARING	1	0.0004807	0.02	0.8915

SOURCE	DF	TYPE III SS	F VALUE	PR > F	PARTIAL R-SQUARE
GENDER	1	0.1665550	6.46	0.0114	.015
AGE	1	0.0986471	3.82	0.0512	.009
TENURE	1	0.0056303	0.22	0.6407	.001
EDUCATION	1	0.1216184	4.71	0.0305	.011
CARING	1	0.0004807	0.02	0.8915	.000

PARAMETER	ESTIMATE	T FOR H0: PARAMETER = 0	PR > T	STD ERROR OF ESTIMATE
INTERCEPT	-0.00187712	-0.04	0.9714	0.05234906
GENDER	-0.04515799	-2.54	0.0114	0.01777403
AGE	-0.01468662	-1.96	0.0512	0.00751121
TENURE	0.00240259	0.47	0.6407	0.00514333
EDUCATION	0.02178391	2.17	0.0305	0.01003382
CARING	0.00129879	0.14	0.8915	0.00951536

Lying behavior was shown to be significantly related to a climate for law and code. Table 18 on page 74 shows that the F value for the full model is 4.80 ($p > .0003$) with an R^2 of .056. The partial R^2 for the unique contribution of the climate is .016 and significant ($p > .008$). In this model, the only significant control variable was gender ($p > .004$). The direction of the relationship between law and code and lying was negative as indicated by the minus sign of the climate β coefficient (i.e., parameter estimate). The results show, therefore, that lower values of law and code climate are associated with higher reports of lying behavior.

Table 18. Sum of squares "F" test for law and code and lying

DEPENDENT VARIABLE: LYING				n = 413	
SOURCE	DF	SUM OF SQUARES	MEAN SQUARE		
MODEL	5	0.6086099	0.1217220		
ERROR	407	10.3234509	0.0253647		
CORRECTED TOTAL	412	10.9320608			
MODEL F = 4.80		PR > F = 0.0003			
R-SQUARE = 0.055672					
SOURCE	DF	TYPE I SS	F VALUE	PR > F	
GENDER	1	0.1848746	7.29	0.0072	
AGE	1	0.1201508	4.74	0.0301	
TENURE	1	0.0037736	0.15	0.6999	
EDUCATION	1	0.1211912	4.78	0.0294	
LAW AND CODE	1	0.1786197	7.04	0.0083	
SOURCE	DF	TYPE III SS	F VALUE	PR > F	PARTIAL R-SQUARE
GENDER	1	0.2173475	8.57	0.0036	.020
AGE	1	0.0619345	2.44	0.1189	.006
TENURE	1	0.0081436	0.32	0.5713	.001
EDUCATION	1	0.0625193	2.46	0.1172	.006
LAW AND CODE	1	0.1786197	7.04	0.0083	.016
PARAMETER	ESTIMATE	T FOR H0: PARAMETER = 0	PR > T	STD ERROR OF ESTIMATE	
INTERCEPT	0.13134299	1.94	0.0526	0.06757351	
GENDER	-0.05211186	-2.93	0.0036	0.01780224	
AGE	-0.01165749	-1.56	0.1189	0.00746026	
TENURE	0.00287328	0.57	0.5713	0.00507089	
EDUCATION	0.01597196	1.57	0.1172	0.01017341	
LAW AND CODE	-0.02875066	-2.65	0.0083	0.01083424	

The relationship between service and lying was also significant. The result of this regression analysis is shown in Table 19 on page 75. The R^2 for the full model was .06 with an F value of 4.74 ($p > .0003$). The partial R^2 for the unique contribution of service was .016. Similar to law and code and lying behavior, the significant control variable was gender ($p > .005$). The direction of the relationship of service to lying behavior was negative as indicated by the minus sign on the beta coefficient. Thus, higher levels of lying behavior are associated with lower perceptions of a climate for service.

Table 19. Sum of squares "F" test for service and lying

DEPENDENT VARIABLE: LYING				n=413	
SOURCE	DF	SUM OF SQUARES	MEAN SQUARE		
MODEL	5	0.6015005	0.1203001		
ERROR	407	10.3305603	0.0253822		
CORRECTED TOTAL	412	10.9320608			
MODEL F = 4.74		PR > F = 0.0003			
R-SQUARE = 0.055022					
SOURCE	DF	TYPE I SS	F VALUE	PR > F	
GENDER	1	0.1848746	7.28	0.0072	
AGE	1	0.1201508	4.73	0.0302	
TENURE	1	0.0037736	0.15	0.7000	
EDUCATION	1	0.1211912	4.77	0.0295	
SERVICE	1	0.1715104	6.76	0.0097	
SOURCE	DF	TYPE III SS	F VALUE	PR > F	PARTIAL R-SQUARE
GENDER	1	0.2063931	8.13	0.0046	.019
AGE	1	0.0624000	2.46	0.1177	.006
TENURE	1	0.0009589	0.04	0.8460	.000
EDUCATION	1	0.0787531	3.10	0.0789	.007
SERVICE	1	0.1715104	6.76	0.0097	.016
PARAMETER	ESTIMATE	T FOR H0: PARAMETER = 0	PR > T	STD ERROR OF ESTIMATE	
INTERCEPT	0.11081410	1.77	0.0783	0.06277812	
GENDER	-0.05058212	-2.85	0.0046	0.01773839	
AGE	-0.01170238	-1.57	0.1177	0.00746357	
TENURE	0.00099015	0.19	0.8460	0.00509426	
EDUCATION	0.01772296	1.76	0.0789	0.01006160	
SERVICE	-0.02575805	-2.60	0.0097	0.00990906	

In summary, with respect to the effects of lying behavior on the five ethical climates, after controlling for the demographic variables, as employee perceptions of the independence, law and code, and service climates were low, their reports of lying behavior were high. With instrumental and caring climates the relationships were in the hypothesized directions, but their unique contributions were nonsignificant. The control variables which made a significant contribution were gender, age, and education for the instrumental and caring models and gender for the independence, law and code, and service models.

Reports of stealing behavior were shown to be negatively related to caring, service, and law and code ethical climates. More specifically, as shown in Table 20 on page 76, the F value for the full model of the relationship between instrumental and stealing was nonsignificant ($F = 1.03$, $p > .401$).

Table 20. Sum of squares "F" test for instrumental and stealing

DEPENDENT VARIABLE: STEALING				n=413	
SOURCE	DF	SUM OF SQUARES	MEAN SQUARE		
MODEL	5	0.0589844	0.0117969		
ERROR	407	4.6741995	0.0114845		
CORRECTED TOTAL	412	4.7331839			
MODEL F = 1.03		PR > F = 0.4011			
R-SQUARE = 0.012462					
SOURCE	DF	TYPE I SS	F VALUE	PR > F	
GENDER	1	0.0022301	0.19	0.6597	
AGE	1	0.0360170	3.14	0.0773	
TENURE	1	0.0000778	0.01	0.9344	
EDUCATION	1	0.0187396	1.63	0.2022	
INSTRUMENTAL	1	0.0019199	0.17	0.6829	
SOURCE	DF	TYPE III SS	F VALUE	PR > F	PARTIAL R-SQUARE
GENDER	1	0.0009522	0.08	0.7735	.000
AGE	1	0.0236350	2.06	0.1522	.005
TENURE	1	0.0000610	0.01	0.9419	.000
EDUCATION	1	0.0191451	1.67	0.1974	.004
INSTRUMENTAL	1	0.0019199	0.17	0.6829	.000
PARAMETER	ESTIMATE	T FOR H0: PARAMETER = 0	PR > T	STD ERROR OF ESTIMATE	
INTERCEPT	-0.00354302	-0.10	0.9229	0.03656715	
GENDER	-0.00341458	-0.29	0.7735	0.01185830	
AGE	-0.00714471	-1.43	0.1522	0.00498038	
TENURE	-0.00024938	-0.07	0.9419	0.00342071	
EDUCATION	0.00864087	1.29	0.1974	0.00669246	
INSTRUMENTAL	0.00279886	0.41	0.6829	0.00684541	

As Table 21 on page 77 shows, the F value for the full model of the relationship between stealing and a caring climate was 2.36 and significant at $p > .04$. The R^2 for the full model was .03. The partial R^2 for the unique contribution of caring was .016 and significant at $p > .01$. None of the control variables were significant. The minus sign of the β coefficient indicated that caring was negatively related to stealing as hypothesized.

Table 21. Sum of squares "F" test for caring and stealing

DEPENDENT VARIABLE: STEALING				n=413	
SOURCE	DF	SUM OF SQUARES	MEAN SQUARE		
MODEL	5	0.1332349	0.0266470		
ERROR	407	4.5999490	0.0113021		
CORRECTED TOTAL	412	4.7331839			
MODEL F = 2.36		PR > F = 0.0397			
R-SQUARE = 0.034402					
SOURCE	DF	TYPE I SS	F VALUE	PR > F	
GENDER	1	0.0022301	0.20	0.6571	
AGE	1	0.0360170	3.19	0.0750	
TENURE	1	0.0000778	0.01	0.9339	
EDUCATION	1	0.0187396	1.66	0.1986	
CARING	1	0.0761704	6.74	0.0098	
SOURCE	DF	TYPE III SS	F VALUE	PR > F	PARTIAL R-SQUARE
GENDER	1	0.0037676	0.33	0.5640	.001
AGE	1	0.0229615	2.03	0.1548	.005
TENURE	1	0.0003332	0.03	0.8638	.000
EDUCATION	1	0.0056723	0.50	0.4791	.001
CARING	1	0.0761704	6.74	0.0098	.016
PARAMETER	ESTIMATE	T FOR H0: PARAMETER = 0	PR > T	STD ERROR OF ESTIMATE	
INTERCEPT	0.09741128	2.05	0.0408	0.04747648	
GENDER	-0.00683473	-0.58	0.5640	0.01183775	
AGE	-0.00702353	-1.43	0.1548	0.00492759	
TENURE	-0.00058145	-0.17	0.8638	0.00338645	
EDUCATION	0.00480958	0.71	0.4791	0.00678899	
CARING	-0.02611596	-2.60	0.0098	0.01005986	

The independence ethical climate variable and stealing model was nonsignificant ($F=1.53$, $p>.1787$). The results of this test are shown in Table 22 on page 78.

Table 22. Sum of squares "F" test for independence and stealing

DEPENDENT VARIABLE: STEALING n = 413

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE
MODEL	5	0.0874279	0.0174856
ERROR	407	4.6457560	0.0114146
CORRECTED TOTAL	412	4.7331839	

MODEL F = 1.53 PR > F = 0.1787

R-SQUARE = 0.018471

SOURCE	DF	TYPE I SS	F VALUE	PR > F
GENDER	1	0.0022301	0.20	0.6587
AGE	1	0.0360170	3.16	0.0764
TENURE	1	0.0000778	0.01	0.9342
EDUCATION	1	0.0187396	1.64	0.2008
INDEPENDENCE	1	0.0303634	2.66	0.1037

SOURCE	DF	TYPE III SS	F VALUE	PR > F	PARTIAL R-SQUARE
GENDER	1	0.0012376	0.11	0.7421	.000
AGE	1	0.0176287	1.54	0.2147	.004
TENURE	1	0.0005747	0.05	0.8226	.000
EDUCATION	1	0.0167615	1.47	0.2263	.004
INDEPENDENCE	1	0.0303634	2.66	0.1037	.006

PARAMETER	ESTIMATE	T FOR H0: PARAMETER = 0	PR > T	STD ERROR OF ESTIMATE
INTERCEPT	0.02936182	0.84	0.3996	0.03481846
GENDER	-0.00389270	-0.33	0.7421	0.01182188
AGE	-0.00620854	-1.24	0.2147	0.00499587
TENURE	-0.00076762	-0.22	0.8226	0.00342094
EDUCATION	0.00808709	1.21	0.2263	0.00667371
INDEPENDENCE	-0.01032214	-1.63	0.1037	0.00632886

In the test of the relationship between service and stealing (as shown in Table 23 on page 79), the F value for the full model was 5.86 and significant at $p > .0001$. The R^2 for the equation was .067. The service variable was significant at $p > .0001$ with a partial R^2 of .055. None of the control variables were significant. The β coefficient for the climate variable was negative which indicated that high perceptions of a climate for service was associated with lower reports of stealing.

Table 23. Sum of squares "F" test for service and stealing

DEPENDENT VARIABLE: STEALING				n = 413	
SOURCE	DF	SUM OF SQUARES	MEAN SQUARE		
MODEL	5	0.3179530	0.0635906		
ERROR	407	4.4152309	0.0108482		
CORRECTED TOTAL	412	4.7331839			
MODEL F = 5.86		PR > F = 0.0001			
R-SQUARE = 0.067175					
SOURCE	DF	TYPE I SS	F VALUE	PR > F	
GENDER	1	0.0022301	0.21	0.6505	
AGE	1	0.0360170	3.32	0.0692	
TENURE	1	0.0000778	0.01	0.9325	
EDUCATION	1	0.0187396	1.73	0.1895	
SERVICE	1	0.2608886	24.05	0.0001	
SOURCE	DF	TYPE III SS	F VALUE	PR > F	PARTIAL R-SQUARE
GENDER	1	0.0106874	0.99	0.3215	.002
AGE	1	0.0065951	0.61	0.4360	.001
TENURE	1	0.0002770	0.03	0.8731	.000
EDUCATION	1	0.0006187	0.06	0.8114	.000
SERVICE	1	0.2608886	24.05	0.0001	.055
PARAMETER	ESTIMATE	T FOR H0: PARAMETER = 0	PR > T	STD ERROR OF ESTIMATE	
INTERCEPT	0.16135802	3.65	0.0003	0.04419171	
GENDER	-0.01155568	-0.99	0.3215	0.01164230	
AGE	-0.00380408	-0.78	0.4360	0.00487886	
TENURE	0.00052996	0.16	0.8731	0.00331626	
EDUCATION	0.00158887	0.24	0.8114	0.00665320	
SERVICE	-0.03474647	-4.90	0.0001	0.00708537	

The law and code climate was significantly related to stealing behavior as shown in Table 24 on page 80. The F value for the full model was 3.29 ($p > .0063$) with an R^2 for the full model of .039. The unique contribution of law and code was .027 as indicated by its partial R^2 . Again, none of the control variables was significant. The β coefficient for law and code had a minus sign denoting that the relationship between law and code and stealing was negative. Higher levels of a perception of a law and code climate were associated with lower reports of stealing behavior.

Table 24. Sum of squares "F" test for law and code and stealing

DEPENDENT VARIABLE: STEALING				n = 413	
SOURCE	DF	SUM OF SQUARES	MEAN SQUARE		
MODEL	5	0.1841149	0.0368230		
ERROR	407	4.5490690	0.0111771		
CORRECTED TOTAL	412	4.7331839			
MODEL F = 3.29 PR > F = 0.0063					
R-SQUARE = 0.038899					
SOURCE	DF	TYPE I SS	F VALUE	PR > F	
GENDER	1	0.0022301	0.20	0.6553	
AGE	1	0.0360170	3.22	0.0734	
TENURE	1	0.0000778	0.01	0.9335	
EDUCATION	1	0.0187396	1.68	0.1961	
LAW AND CODE	1	0.1270504	11.37	0.0008	
SOURCE	DF	TYPE III SS	F VALUE	PR > F	PARTIAL R-SQUARE
GENDER	1	0.0049687	0.44	0.5053	.001
AGE	1	0.0107124	0.96	0.3282	.002
TENURE	1	0.0016081	0.14	0.7047	.000
EDUCATION	1	0.0065155	0.58	0.4456	.001
LAW AND CODE	1	0.1270504	11.37	0.0008	.027
PARAMETER	ESTIMATE	T FOR H0: PARAMETER = 0	PR > T	STD ERROR OF ESTIMATE	
INTERCEPT	0.09844889	2.36	0.0186	0.04165888	
GENDER	-0.00784822	-0.67	0.5053	0.01177100	
AGE	-0.00484871	-0.98	0.3282	0.00495274	
TENURE	-0.00128224	-0.38	0.7047	0.00338050	
EDUCATION	0.00509771	0.76	0.4456	0.00667677	
LAW AND CODE	-0.02216950	-3.37	0.0008	0.00657555	

Overall, with respect to stealing behavior, the results show that three of the five climates were significantly related to the models of stealing behavior -- caring, service, and law and code. However, none of the control variables for the models were significant. All of the directions of the relationships were negative except for instrumental which was positive and nonsignificant.

The next behavior analyzed was being an accomplice. Each climate was initially examined in the same way as with the behaviors discussed earlier. Interestingly, the relationship between being an accomplice and the instrumental climate was nonsignificant when examined with the demographic

variables but significant when examined without the control variables. Specifically, the F value for the full model was 1.89 and nonsignificant at $p > .0957$ (see Table 25 on page 81).

Table 25. Sum of squares "F" test for instrumental and accomplice

DEPENDENT VARIABLE: ACCOMPLICE

n=413

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE
MODEL	5	0.1022829	0.0204566
ERROR	407	4.4156643	0.0108493
CORRECTED TOTAL	412	4.5179472	

MODEL F = 1.89 PR > F = 0.0957

R-SQUARE = 0.022639

SOURCE	DF	TYPE I SS	F VALUE	PR > F
GENDER	1	0.0019799	0.18	0.6695
AGE	1	0.0306202	2.82	0.0937
TENURE	1	0.0209018	1.93	0.1659
EDUCATION	1	0.0006960	0.06	0.8002
INSTRUMENTAL	1	0.0480850	4.43	0.0359

SOURCE	DF	TYPE III SS	F VALUE	PR > F	PARTIAL R-SQUARE
GENDER	1	0.0018030	0.17	0.6837	.000
AGE	1	0.0401794	3.70	0.0550	.009
TENURE	1	0.0161208	1.49	0.2236	.004
EDUCATION	1	0.0011677	0.11	0.7430	.000
INSTRUMENTAL	1	0.0480850	4.43	0.0359	.011

PARAMETER	ESTIMATE	T FOR H0: PARAMETER = 0	PR > T	STD ERROR OF ESTIMATE
INTERCEPT	-0.01039533	-0.29	0.7701	0.03554148
GENDER	0.00469856	0.41	0.6837	0.01152569
AGE	-0.00931554	-1.92	0.0550	0.00484069
TENURE	0.00405278	1.22	0.2236	0.00332477
EDUCATION	0.00213401	0.33	0.7430	0.00650474
INSTRUMENTAL	0.01400709	2.11	0.0359	0.00665340

The unique contribution of the instrumental climate variable was .011 as indicated by the partial R^2 which was significant at $p > .04$, but none of the control variables made a significant contribution to the model. Since instrumental climate was the only significant variable in the model, the regression was run without controls. In this model, the F-value was 5.22 ($p > .02$) and R^2 was .01. The results of the regression without controls is shown in Table 26 on page 82. Note that the positive β coefficient for the climate variable indicates that as the climate becomes more instrumental (i.e., egoist), employees are more likely to become an accomplice to a crime. The instru-

mental climate model without controls therefore, became the more appropriate model for making inferences since instrumental climate had been the only significant variable when controls were included in the model.

Table 26. Sum of squares "F" test for instrumental and accomplice without control variables

DEPENDENT VARIABLE: ACCOMPLICE				n = 413	
SOURCE	DF	SUM OF SQUARES	MEAN SQUARE		
MODEL	1	0.0566238	0.0566238		
ERROR	411	4.4613235	0.0108548		
CORRECTED TOTAL	412	4.5179472			
MODEL F = 1.89		PR > F = 0.0229			
R-SQUARE = 0.012533					
PARAMETER	ESTIMATE	T FOR H0: PARAMETER = 0	PR > T	STD ERROR OF ESTIMATE	
INTERCEPT	-0.01817332	-1.02	0.3088	0.01783529	
INSTRUMENTAL	0.01511569	2.28	0.0229	0.00661820	

The only other significant model was the relationship between being an accomplice and independence ($F = 2.27$, $p > .05$) with an R^2 of .027 as shown in Table 27 on page 83. The unique contribution of the climate variable was .015 ($p > .01$). None of the control variables was significant. The results show that as the climate became more independent, accomplice behavior decreased.

Table 27. Sum of squares "F" test for independence and accomplice

DEPENDENT VARIABLE: ACCOMPLICE

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE
MODEL	5	0.1224550	0.0244910
ERROR	407	4.3954922	0.0107997
CORRECTED TOTAL	412	4.5179472	

MODEL F = 2.27 PR > F = 0.0471

R-SQUARE = 0.027104

SOURCE	DF	TYPE I SS	F VALUE	PR > F
GENDER	1	0.0019799	0.18	0.6688
AGE	1	0.0306202	2.84	0.0930
TENURE	1	0.0209018	1.94	0.1649
EDUCATION	1	0.0006960	0.06	0.7997
INDEPENDENCE	1	0.0682571	6.32	0.0123

SOURCE	DF	TYPE III SS	F VALUE	PR > F	PARTIAL R-SQUARE
GENDER	1	0.0001304	0.01	0.9126	.000
AGE	1	0.0313997	2.91	0.0889	.007
TENURE	1	0.0243164	2.25	0.1343	.005
EDUCATION	1	0.0008948	0.08	0.7736	.000
INDEPENDENCE	1	0.0682571	6.32	0.0123	.015

PARAMETER	ESTIMATE	T FOR H0: PARAMETER = 0	PR > T	STD ERROR OF ESTIMATE
INTERCEPT	0.10867060	2.46	0.0141	0.04409281
GENDER	0.00127641	0.11	0.9126	0.01161625
AGE	-0.00830044	-1.71	0.0889	0.00486794
TENURE	0.00496498	1.50	0.1343	0.00330884
EDUCATION	-0.00191074	-0.29	0.7736	0.00663831
INDEPENDENCE	-0.01777284	-2.51	0.0123	0.00706952

The relationships between being an accomplice and caring, service and law and code were all non-significant. The results of regressions on those models are shown in Table 28 on page 84, Table 29 on page 85, and Table 30 on page 86, respectively. The F-values were 1.96 ($p > .08$) for caring, 1.29 ($p > .27$) for service, and 1.21 ($p > .31$) for law and code.

Table 28. Sum of squares "F" test for caring and accomplice

DEPENDENT VARIABLE: ACCOMPLICE

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE
MODEL	5	0.1064590	0.0212918
ERROR	407	4.4114882	0.0108390
CORRECTED TOTAL	412	4.5179472	

MODEL F = 1.96 PR > F = 0.0829

R-SQUARE = 0.023564

SOURCE	DF	TYPE I SS	F VALUE	PR > F
GENDER	1	0.0019799	0.18	0.6693
AGE	1	0.0306202	2.82	0.0936
TENURE	1	0.0209018	1.93	0.1657
EDUCATION	1	0.0006960	0.06	0.8001
CARING	1	0.0522611	4.82	0.0287

SOURCE	DF	TYPE III SS	F VALUE	PR > F	PARTIAL R-SQUARE
GENDER	1	0.0005266	0.05	0.8257	.000
AGE	1	0.0452516	4.17	0.0417	.010
TENURE	1	0.0178437	1.65	0.2002	.004
EDUCATION	1	0.0005129	0.05	0.8279	.000
CARING	1	0.0522611	4.82	0.0287	.012

PARAMETER	ESTIMATE	T FOR H0: PARAMETER = 0	PR > T	STD ERROR OF ESTIMATE
INTERCEPT	0.10549757	2.27	0.0238	0.04649375
GENDER	0.00255530	0.22	0.8257	0.01159271
AGE	-0.00985990	-2.04	0.0417	0.00482559
TENURE	0.00425508	1.28	0.2002	0.00331636
EDUCATION	-0.00144630	-0.22	0.8279	0.00664846
CARING	-0.02163227	-2.20	0.0287	0.00985163

Table 29. Sum of squares "F" test for service and accomplice

DEPENDENT VARIABLE: ACCOMPLICE

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE
MODEL	5	0.0704858	0.0140972
ERROR	407	4.4474614	0.0109274
CORRECTED TOTAL	412	4.5179472	

MODEL F = 1.29 PR > F = 0.2672

R-SQUARE = 0.015601

SOURCE	DF	TYPE I SS	F VALUE	PR > F
GENDER	1	0.0019799	0.18	0.6706
AGE	1	0.0306202	2.80	0.0949
TENURE	1	0.0209018	1.91	0.1674
EDUCATION	1	0.0006960	0.06	0.8009
SERVICE	1	0.0162879	1.49	0.2228

SOURCE	DF	TYPE III SS	F VALUE	PR > F	PARTIAL R-SQUARE
GENDER	1	0.0020862	0.19	0.6624	.000
AGE	1	0.0394654	3.61	0.0581	.009
TENURE	1	0.0168919	1.55	0.2145	.004
EDUCATION	1	0.0004413	0.04	0.8408	.000
SERVICE	1	0.0162879	1.49	0.2228	.004

PARAMETER	ESTIMATE	T FOR H0: PARAMETER = 0	PR > T	STD ERROR OF ESTIMATE
INTERCEPT	0.04671656	1.37	0.1710	0.03406728
GENDER	0.00505392	0.44	0.6624	0.01156684
AGE	-0.00928941	-1.90	0.0581	0.00488808
TENURE	0.00416153	1.24	0.2145	0.00334713
EDUCATION	0.00131228	0.20	0.8408	0.00652973
SERVICE	-0.00756010	-1.22	0.2228	0.00619232

Table 30. Sum of squares "F" test for law and code and accomplice

DEPENDENT VARIABLE: ACCOMPLICE					
SOURCE	DF	SUM OF SQUARES	MEAN SQUARE		
MODEL	5	0.0660015	0.0132003		
ERROR	407	4.4519457	0.0109384		
CORRECTED TOTAL	412	4.5179472			
MODEL F = 1.21		PR > F = 0.3051			
R-SQUARE = 0.014609					
SOURCE	DF	TYPE I SS	F VALUE	PR > F	
GENDER	1	0.0019799	0.18	0.6707	
AGE	1	0.0306202	2.80	0.0951	
TENURE	1	0.0209018	1.91	0.1676	
EDUCATION	1	0.0006960	0.06	0.8010	
LAW AND CODE	1	0.0118036	1.08	0.2995	
SOURCE	DF	TYPE III SS	F VALUE	PR > F	PARTIAL R-SQUARE
GENDER	1	0.0013715	0.13	0.7235	.000
AGE	1	0.0397601	3.63	0.0573	.009
TENURE	1	0.0178761	1.63	0.2018	.004
EDUCATION	1	0.0000891	0.01	0.9281	.000
LAW AND CODE	1	0.0118036	1.08	0.2995	.003
PARAMETER	ESTIMATE	T FOR H0: PARAMETER = 0	PR > T	STD ERROR OF ESTIMATE	
INTERCEPT	0.05700828	1.38	0.1673	0.04121177	
GENDER	0.00412333	0.35	0.7235	0.01164467	
AGE	-0.00934126	-1.91	0.0573	0.00489959	
TENURE	0.00427516	1.28	0.2018	0.00334421	
EDUCATION	0.00059626	0.09	0.9281	0.00660511	
LAW AND CODE	-0.00675734	-1.04	0.2995	0.00650497	

The results of testing the relationship between being an accomplice to a crime behavior and the types of ethical climates have shown that higher levels of instrumental climate were associated with higher reports of unethical behavior. It was also shown that higher perceptual levels of independence climate were associated with lower reports of being an accomplice to a crime unethical behavior. None of the demographic variables made significant contributions to these models. Caring, service, and law and code climates were not found to be significantly related to being an accomplice type of unethical behavior.

The last type of unethical behavior examined to complete the test of hypotheses 3 and 4 was the employee's self-reported indication of failing to follow orders behavior. The relationship between an independence climate and failure to follow orders behavior was significant for the full model ($F = 2.27, p > .05$, see Table 31 on page 87). The R^2 was .027 for the full model. The independence climate variable was significant at $p > .0041$ with a partial R^2 of .02. None of the demographic variables was significant. The sign of the β coefficient for the climate variable was negative which indicated that higher perceptions of an independence climate were associated with lower reports of failing to follow orders.

Table 31. Sum of squares "F" test for independence and following orders

DEPENDENT VARIABLE: FOLLOWING ORDERS				n = 413	
SOURCE	DF	SUM OF SQUARES	MEAN SQUARE		
MODEL	5	0.2540785	0.0508157		
ERROR	407	9.0911618	0.0223370		
CORRECTED TOTAL	412	9.3452403			
MODEL F = 2.27		PR > F = 0.0465			
R-SQUARE = 0.027188					
SOURCE	DF	TYPE I SS	F VALUE	PR > F	
GENDER	1	0.0015473	0.07	0.7925	
AGE	1	0.0197419	0.88	0.3477	
TENURE	1	0.0009968	0.04	0.8328	
EDUCATION	1	0.0456773	2.04	0.1535	
INDEPENDENCE	1	0.1861153	8.33	0.0041	
SOURCE	DF	TYPE III SS	F VALUE	PR > F	PARTIAL R-SQUARE
GENDER	1	0.0089256	0.40	0.5277	.001
AGE	1	0.0036403	0.16	0.6866	.000
TENURE	1	0.0000243	0.00	0.9737	.000
EDUCATION	1	0.0210734	0.94	0.3320	.002
INDEPENDENCE	1	0.1861153	8.33	0.0041	.020
PARAMETER	ESTIMATE	T FOR H0: PARAMETER = 0	PR > T	STD ERROR OF ESTIMATE	
INTERCEPT	0.10483491	1.78	0.0758	0.05889197	
GENDER	-0.01051885	-0.63	0.5277	0.01664033	
AGE	-0.00282651	-0.40	0.6866	0.00700155	
TENURE	-0.00015755	-0.03	0.9737	0.00477891	
EDUCATION	0.00916790	0.97	0.3320	0.00943876	
INDEPENDENCE	-0.02683236	-2.89	0.0041	0.00929566	

The results of the regressions of failing to follow orders behavior on both caring and law and code climates were similar to instrumental climate and being an accomplice to a crime behavior discussed earlier. Both models were nonsignificant as shown in Table 32 on page 88 and Table 33 on page 89. Yet, the only variables to make a significant unique contribution to the models were the climate variables. For both variables the partial R^2 s were .012 ($p > .03$). As before, since the climate variables were the only significant contributors to the models, regressions without control variables were run for each climate.

Table 32. Sum of squares "F" test for caring and following orders					
DEPENDENT VARIABLE: FOLLOWING ORDERS					n = 413
SOURCE	DF	SUM OF SQUARES	MEAN SQUARE		
MODEL	5	0.1795379	0.0359076		
ERROR	407	9.1657024	0.0225202		
CORRECTED TOTAL	412	9.3452403			
MODEL F = 1.59 PR > F = 0.1605					
R-SQUARE = 0.019212					
SOURCE	DF	TYPE I SS	F VALUE	PR > F	
GENDER	1	0.0015473	0.07	0.7934	
AGE	1	0.0197419	0.88	0.3497	
TENURE	1	0.0009968	0.04	0.8335	
EDUCATION	1	0.0456773	2.03	0.1552	
CARING	1	0.1115747	4.95	0.0266	
SOURCE	DF	TYPE III SS	F VALUE	PR > F	PARTIAL R-SQUARE
GENDER	1	0.0069638	0.31	0.5785	.001
AGE	1	0.0138701	0.62	0.4330	.001
TENURE	1	0.0004701	0.02	0.8852	.000
EDUCATION	1	0.0190730	0.85	0.3580	.002
CARING	1	0.1115747	4.95	0.0266	.012
PARAMETER	ESTIMATE	T FOR H0: PARAMETER = 0	PR > T	STD ERROR OF ESTIMATE	
INTERCEPT	0.10357562	1.55	0.1230	0.06701699	
GENDER	-0.00929206	-0.56	0.5785	0.01670996	
AGE	-0.00545877	-0.78	0.4330	0.00695570	
TENURE	0.00069065	0.14	0.8852	0.00478026	
EDUCATION	0.00881931	0.92	0.3580	0.00958322	
CARING	-0.03160790	-2.23	0.0266	0.01420033	

Table 33. Sum of squares "F" test for law and code and following orders

DEPENDENT VARIABLE: FOLLOWING ORDERS				n = 413	
SOURCE	DF	SUM OF SQUARES	MEAN SQUARE		
MODEL	5	0.1758107	0.0351621		
ERROR	407	9.1694296	0.0225293		
CORRECTED TOTAL	412	9.3452403			
MODEL F = 1.56		PR > F = 0.1701			
R-SQUARE = 0.018813					
SOURCE	DF	TYPE I SS	F VALUE	PR > F	
GENDER	1	0.0015473	0.07	0.7934	
AGE	1	0.0197419	0.88	0.3498	
TENURE	1	0.0009968	0.04	0.8335	
EDUCATION	1	0.0456773	2.03	0.1552	
LAW AND CODE	1	0.1078475	4.79	0.0292	
SOURCE	DF	TYPE III SS	F VALUE	PR > F	PARTIAL R-SQUARE
GENDER	1	0.0084799	0.38	0.5399	.001
AGE	1	0.0057279	0.25	0.6144	.001
TENURE	1	0.0027132	0.12	0.7287	.000
EDUCATION	1	0.0192684	0.86	0.3556	.002
LAW AND CODE	1	0.1078475	4.79	0.0292	.012
PARAMETER	ESTIMATE	T FOR H0: PARAMETER = 0	PR > T	STD ERROR OF ESTIMATE	
INTERCEPT	0.09179871	1.44	0.1502	0.06368472	
GENDER	-0.01029331	-0.61	0.5399	0.01677773	
AGE	-0.00354515	-0.50	0.6144	0.00703092	
TENURE	0.00165848	0.35	0.7287	0.00477906	
EDUCATION	0.00886694	0.92	0.3556	0.00958793	
LAW AND CODE	-0.02234025	-2.19	0.0292	0.01021074	

Table 34 on page 90 shows the results of regression without controls for caring climate and failing to follow orders behavior. The model was significant ($F = 5.97, p > .02$) and showed a negative relationship to exist between the two variables. The R^2 for the model was .01.

Table 34. Sum of squares "F" test for caring and failing to follow orders without control variables

DEPENDENT VARIABLE: FAILING TO FOLLOW ORDERS n = 413

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE
MODEL	1	0.1337190	0.1337190
ERROR	411	9.2115213	0.0224125
CORRECTED TOTAL	412	9.3452403	

MODEL F = 5.97 PR > F = 0.0150

R-SQUARE = 0.014309

PARAMETER	ESTIMATE	T FOR H0: PARAMETER = 0	PR > T	STD ERROR OF ESTIMATE
INTERCEPT	0.13009483	3.20	0.0015	0.04065721
CARING	-.03341876	-2.44	0.0150	0.01368165

The model of the relationship between failing to follow orders behavior and law and code climate without controls is shown in Table 35 on page 90. Again, as was the case with caring, the model was significant ($F = 9.75$, $p > .002$) with an R^2 of .02. The relationship was negative.

Table 35. Sum of squares "F" test for law and code and failing to follow orders without control variables

DEPENDENT VARIABLE: FAILING TO FOLLOW ORDERS n = 413

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE
MODEL	1	0.2166099	0.2166099
ERROR	411	9.1286304	0.0222108
CORRECTED TOTAL	412	9.3452403	

MODEL F = 9.75 PR > F = 0.0019

R-SQUARE = 0.023179

PARAMETER	ESTIMATE	T FOR H0: PARAMETER = 0	PR > T	STD ERROR OF ESTIMATE
INTERCEPT	0.13650663	4.00	0.0001	0.03412448
LAW AND CODE	-.02801808	-3.12	0.0019	0.00897183

The models for failing to follow orders with instrumental and service were both nonsignificant. The F-value for instrumental was 1.03 ($p > .4002$) and .61 ($p > .6959$) for service. The results of these regressions are shown in Table 36 on page 91 and Table 37 on page 92.

Table 36. Sum of squares "F" test for instrumental and following orders

DEPENDENT VARIABLE: FOLLOWING ORDERS				n = 413	
SOURCE	DF	SUM OF SQUARES	MEAN SQUARE		
MODEL	5	0.1166266	0.0233253		
ERROR	407	9.2286137	0.0226747		
CORRECTED TOTAL	412	9.3452403			
MODEL F = 1.03		PR > F = 0.4002			
R-SQUARE = 0.012480					
SOURCE	DF	TYPE I SS	F VALUE	PR > F	
GENDER	1	0.0015473	0.07	0.7941	
AGE	1	0.0197419	0.87	0.3513	
TENURE	1	0.0009968	0.04	0.8340	
EDUCATION	1	0.0456773	2.01	0.1566	
INSTRUMENTAL	1	0.0486633	2.15	0.1437	
SOURCE	DF	TYPE III SS	F VALUE	PR > F	PARTIAL R-SQUARE
GENDER	1	0.0027325	0.12	0.7287	.000
AGE	1	0.0116449	0.51	0.4740	.001
TENURE	1	0.0004216	0.02	0.8916	.000
EDUCATION	1	0.0490355	2.16	0.1422	.005
INSTRUMENTAL	1	0.0486633	2.15	0.1437	.005
PARAMETER	ESTIMATE	T FOR H0: PARAMETER = 0	PR > T	STD ERROR OF ESTIMATE	
INTERCEPT	-0.04815951	-0.94	0.3492	0.05138137	
GENDER	-0.00578426	-0.35	0.7287	0.01666238	
AGE	-0.00501503	-0.72	0.4740	0.00699806	
TENURE	0.00065543	0.14	0.8916	0.00480653	
EDUCATION	0.01382880	1.47	0.1422	0.00940373	
INSTRUMENTAL	0.01409107	1.46	0.1437	0.00961865	

Table 37. Sum of squares "F" test for service and following orders

DEPENDENT VARIABLE: FOLLOWING ORDERS				n = 413	
SOURCE	DF	SUM OF SQUARES	MEAN SQUARE		
MODEL	5	0.0689814	0.0137963		
ERROR	407	9.2762589	0.0227918		
CORRECTED TOTAL	412	9.3452403			
MODEL F = 0.61 PR > F = 0.6959					
R-SQUARE = 0.007381					
SOURCE	DF	TYPE I SS	F VALUE	PR > F	
GENDER	1	0.0015473	0.07	0.7946	
AGE	1	0.0197419	0.87	0.3526	
TENURE	1	0.0009968	0.04	0.8345	
EDUCATION	1	0.0456773	2.00	0.1576	
SERVICE	1	0.0010182	0.04	0.8327	
SOURCE	DF	TYPE III SS	F VALUE	PR > F	PARTIAL R-SQUARE
GENDER	1	0.0020999	0.09	0.7616	.000
AGE	1	0.0143042	0.63	0.4287	.002
TENURE	1	0.0012127	0.05	0.8177	.000
EDUCATION	1	0.0450274	1.98	0.1606	.005
SERVICE	1	0.0010182	0.04	0.8327	.000
PARAMETER	ESTIMATE	T FOR H0: PARAMETER = 0	PR > T	STD ERROR OF ESTIMATE	
INTERCEPT	-0.00464574	-0.09	0.9248	0.04920030	
GENDER	-0.00507060	-0.30	0.7616	0.01670494	
AGE	-0.00559257	-0.79	0.4287	0.00705942	
TENURE	0.00111506	0.23	0.8177	0.00483396	
EDUCATION	0.01325483	1.41	0.1606	0.00943029	
SERVICE	-0.00189018	-0.21	0.8327	0.00894302	

In summary, the results of the regression analyses for examining the relationship between the ethical climates and failing to follow orders behavior shows that all of the models were significant except for the relationship between failing to follow orders behavior with instrumental and service climates. None of the demographic variables was significant. Independence, law and code, and caring climates were all found to be negatively related to the behavior.

Overall, independence climate was negatively related to being an accomplice, following orders, and lying unethical behaviors. Caring climates were negatively related to being an accomplice, failing to follow orders, and stealing. The law and code climate was negatively related to failing to follow

orders, stealing, and lying behaviors. Service climate was negatively related to lying and stealing unethical behaviors. In all of these negative relationships, high perceptions of the climate were associated with low reports of unethical behavior. The only positive significant relationship was found between instrumental climate and being an accomplice to a crime behavior. However, though none of the other unethical behaviors were significantly related to an instrumental climate, all of the relationships were positive. The only significant control variables were found with lying unethical behavior. In the statistically significant relationships between lying behavior and law and code climate, service climate, and independence climate, where the climate variables made statistically significant unique contributions, the only statistically significant control variable was gender. However, in the relationships between lying behavior and caring and instrumental climates, where the climate variables did not make a unique contribution in the models, gender, age, and education were significant.

Hypothesis 3 was partially supported. It was expected that caring, service, law and code, and independence climates would all be negatively related to the different types of unethical behaviors. In the models where these climates were significant, all of the relationships were negative.

Hypothesis 4 was partially supported. An instrumental type of ethical climate was expected to be positively related to unethical behavior. This was the finding for being an accomplice to a crime behavior. However, even though the relationships with instrumental climate and the other climates were nonsignificant they all were in the hypothesized direction.

Hypotheses 5 and 6

Caring, law and code, service, and independence types of ethical climates are negatively related to unethical behavior at the district level of analysis after statistically controlling for gender, age, tenure, and education.

An instrumental type of ethical climate is positively related to unethical behavior at the district level of analysis after statistically controlling for gender, age, tenure, and education.

At the district level of analysis, it was first determined whether differences in ethical climates and ethical behavior were based on being a member of a district. The between-group condition of all employees in each of the districts was examined by ANOVA for statistical significance (part one of WABA I) and the E ratio for practical significance (part two of WABA I).

ANOVAs were conducted to determine if between-group statistical differences in ethical climate and behavior existed between the districts. Significant statistical differences were not found between any of the five ethical climates as shown in Table 38 on page 95. The significance levels of the F-values for each of the climates were greater than .05 however, independence was close to being statistically significant ($p < .06$).

Table 38. ANOVA for between-district statistical differences in ethical climate (WABA I)

Instrumental					
Source	df	SS	F	P > F	R-Square
Districts	35	18.255376	.86	.7040	.0737
Error	377	229.568218			
Caring					
Source	df	SS	F	P > F	R-Square
Districts	35	5.782659	.55	.9843	.0483
Error	377	113.95000			
Independence					
Source	df	SS	F	P > F	R-Square
Districts	35	34.120604	1.42	.0607	.1167
Error	377	258.221406			
Service					
Source	df	SS	F	P > F	R-Square
Districts	35	18.238337	.89	.6574	.0760
Error	377	221.6947			
Law and Code					
Source	df	SS	F	P > F	R-Square
Districts	35	16.509140	.69	.9135	.0598
Error	377	259.422531			

Similar to the ethical climates, there were no statistically significant between-district differences in unethical behavior. The only F-value which was close to being significant was stealing ($p < .06$) as shown in Table 39 on page 96.

Table 39. ANOVA for between-district statistical differences in unethical behavior (WABA I)

Lying					
Source	df	SS	F	P > F	R-Square
Districts	35	1.052041	1.15	.2653	.0962
Error	377	9.880020			
Stealing					
Source	df	SS	F	P > F	R-Square
Districts	35	.555321	1.43	.0575	.1173
Error	377	4.177863			
Failing to Follow Orders					
Source	df	SS	F	P > F	R-Square
Districts	35	.796018	1.00	.4677	.0852
Error	377	8.549223			
Being an Accomplice					
Source	df	SS	F	P > F	R-Square
Districts	35	.359241	.93	.5853	.0924
Error	377	4.158707			

To determine if there was between-group practical significance, E ratios were calculated for each of the climate and behavioral variables. As stated in the previous chapter, an E ratio equal to or greater than 1.303 indicates that the between-group variation is more highly correlated with the total variation and thus group membership affects the value of the variable. An E ratio equal to or less than .767 indicates that the variance is not related to group membership while an E ratio equal to 1 indicates that the total variation is comprised equally of between-group and within-group variation (Dansereau et al., 1984).

An examination of the E ratios (Table 40 on page 97) showed that all of the ratios were less than .767. This was strong indication that the variance was not related to being a member of a district. Since all of the E ratios were less than .767, which indicated practical nonsignificance, the appropriate inference for WABA I was the existence of a parts condition.

Variables	$\eta_{BX} \div$	$\eta_{WX} =$	E ratio
Instrumental climate	.2714	.9625	.2820
Caring climate	.2198	.9756	.2253
Independence climate	.3416	.9398	.3635
Service climate	.2757	.9612	.2868
Law and code climate	.2446	.9696	.2523
Lying behavior	.3102	.9507	.3263
Stealing behavior	.3425	.9395	.3646
Following orders behavior	.2919	.9565	.3052
Accomplice behavior	.2820	.9594	.2939

It had been expected that the ethical climates would vary between district groups however, no significant differences (statistical or practical) were found between any of the districts. All of the E ratios were less than .767 which preliminarily indicated that a lower level (stores or individuals) was responsible for the variation occurring and not group membership.

The next step in examining ethical climate at the district level of analysis was to examine the relationship between ethical climate and unethical behavior using WABA II. The means for each districts' ethical climates and ethical behaviors were entered separately into the multiple regression equation that was used to test hypotheses 3 and 4. The means were appropriately adjusted to reflect the number of individuals within the districts. From the analyses, within- and between-district covariation was measured. Within-district covariation was obtained by holding constant (i.e., partialling out) the district and then examining the amount of covariation remaining within each district. This is referred to as the within-district perspective. Between-district covariation was obtained by using an adjusted group average and then examining the amount of covariation between

districts. This may also be thought of as using group averages to represent the characteristics of a group and is referred to as the between-district perspective.

A different set of results was obtained from the WABA II analysis compared to WABA I because WABA II considered the relationship between two variables. Since the relationship between two variables was considered, practical and statistical significance had to be examined with respect to the *difference* between the two angles formed by the two variables, and the *magnitude* (i.e., degree of association) of the between- and within-cell correlations (see Dansereau et al., 1984:129-131). As discussed in the previous chapter, the A-value is the practical significant difference test and the Z-value is the statistical significant difference test. The practical significance test for magnitude test is the R-value and statistical magnitude significance test is the *t* value.

The between-cell and within-cell partial correlations are shown in Table 41 on page 99. A cursory inspection of the partial correlations shows that several of the between-cell correlations (r_{BXY}) are greater than the within-cell correlations (r_{WXY}). However, most of the partial r_{WXY} were significant while only two of the partial r_{BXY} (lying with service and stealing with service) were significant. Further inspection with the difference and magnitude tests was warranted before appropriate inferences could be made.

Table 41. Raw, within-, and between-district correlations of ethical climates and unethical behavior			
Ethical Climates	r	Partial <i>r</i>_{BXY}	Partial <i>r</i>_{WXY}
Lying with:			
Instrumental	.006*	.046	.009
Caring	-.10*	.003	.102*
Independence	-.005	.111	.007
Service	.146**	.357*	.134**
Law and Code	-.136**	.219	.131**
Stealing with:			
Instrumental	.020	.157	.021
Caring	-.134**	.277	.133**
Independence	-.089	.055	.084
Service	.250***	.591***	.245***
Law and Code	-.176***	.119	.171***
Being an accomplice with:			
Instrumental	.112*	.113	.108*
Caring	-.114*	.087	.113*
Independence	-.076	.326	.063
Service	-.135**	.184	.129**
Law and Code	-.071	.052	.053
Failing to Follow Orders with:			
Instrumental	.072	.121	.076
Caring	-.120*	.098	.114*
Independence	-.018	.180	.011
Service	-.123**	.038	.112*
Law and Code	-.152**	.307	.148**
* p < .05			
** p < .01			
*** p < .001			

Practical significance in the difference test is found when the A-value is greater than .26 (15°) or .52 (30°) for a wholes condition. According to the results shown in Table 42 on page 101, only the

A-values for stealing with service ($A = .39$) and helping with independence ($A = .27$) are greater than .26 (15° which indicated practically significant differences). On the other hand, statistically significant differences are found for a wholes condition when Z is greater than 1.66 ($p < .05$) or 2.33 ($p < .01$). Table 42 on page 101, shows that one Z -value was found to be statistically significant in the difference test -- stealing with service ($Z = 2.31, p < .05$). All of the other Z -values failed to meet the criteria although helping with independence ($Z = 1.54$) and lying with service ($Z = 1.38$) were close. Thus, only in the relationship between stealing and service were both practically and statistically significant differences found.

Since the difference test was passed in the relationship between stealing and service, it was necessary to test for practical and statistical significance in magnitude. The results of the practical and statistical magnitude tests for all the variable relationships are also shown in Table 42 on page 101. The major concern for this test however, was with the relationship between stealing and service since all of the other variable relationships failed the difference test. As discussed in the previous chapter, the criteria for passing the magnitude test for practical significance is for an R -value greater than or equal to .27 (15°) or .58 (30°) for both between and within. The results show that there was practical significance in the magnitude of R_{BXY} in the relationship between stealing and service ($R_{BXY} = .733$). R_{WXY} for stealing with service was nonsignificant.

Table 42 on page 101 also shows the results of the test for statistical significance in magnitude for the between- and within-correlations. Again, the major concern was for the stealing and service variable relationship because none of the other variables passed the difference tests. The criterion for passing the statistical significance test for magnitude was $t_{1,34}$ (between) or $t_{1,376}$ (within). There was both statistical significance in magnitude for the between- and within-correlations for the relationship between stealing and service. Thus, stealing and service passed both the practical and statistical significance tests for difference and magnitude.

Table 42. Results of difference and magnitude tests (WABA II)

	Difference Tests		R_{BXY}	Magnitude R_{WXY}	Tests	
	A_{BW}	Z_{BW}			t_{BXY}	t_{WXY}
Lying with:						
Instrumental	.03	.22	.046	.009	.268	.175
Caring	-.09	-.55	.003	.103	.017	1.997*
Independence	.10	.55	.112	.007	.653	.136
Service	.23	1.38	.382†	.135	2.227*	2.618**
Law and Code	.09	.50	.224	.132	1.306	2.559**
Stealing with:						
Instrumental	.14	.77	.159	.021	.927	.407
Caring	.14	.88	.288†	.134	1.679	2.598**
Independence	-.04	-.11	.055	.084	.321	1.629*
Service	.39†	2.31*	.733††	.253	4.27**	4.906**
Law and code	-.05	-.275	.120	.174	.700	3.374**
Being an Accomplice with:						
Instrumental	.01	.00	.114	.109	.840	2.114
Caring	-.02	-.11	.087	.114	.507	2.210
Independence	.27	1.54	.345†	.063	2.011*	1.222
Service	.05	.28	.187	.130	1.09	2.521**
Law	.00	.00	.052	.053	.303	1.028
Failing to Follow Orders with:						
Instrumental	.04	.22	.122	.076	.711	1.474
Caring	-.02	-.06	.098	.115	.571	2.230*
Independence	.17	.936	.183	.011	1.067	.213
Service	-.08	-.39	.380	.113	2.215*	-2.19
Law and Code	.16	.94	.323†	.150	1.88*	2.909**
* $p < .05$						
** $p < .01$						
*** $p < .001$						
† 15°						
†† 30°						

The demographic variables were controlled in the within- and between-district regression analyses conducted to test hypotheses 5 and 6. The results of the control variables in the models are shown

in Appendix F which summarizes the results of the regressions used to test hypotheses 5 and 6. The results were very similar to the findings from the regression analysis at the individual level of analysis. Only for the relationships between lying unethical behavior and the ethical climates, from the within-district perspective, were the control variables significant. The only exception was with a significant contribution by age to the model of being an accomplice and caring. Although there were differences in the particular variables which were significant, at both the individual and district levels, gender was significant in all the models with lying behavior and the five climates. Gender (partial $R^2 = .02$, $p \leq .01$), age (partial $R^2 = .01$, $p \leq .05$), and education (partial $R^2 = .01$, $p \leq .05$) were significant at both the individual and district levels of analysis for the relationship between lying and instrumental, but only significant for lying and independence at the district level, and lying and caring at the individual level. Also at the district level, gender and age were significant in the relationship between lying and service (partial $R^2 = .02$, $p \leq .01$; $.01$, $p \leq .05$, respectively). The partial R^2 between lying and both caring and law and code was $.02$ ($p \leq .01$).

Neither hypothesis 5 nor 6 was supported. Critical to establishing that ethical climate was due to group membership was to find support for wholes conditions at WABA I and WABA II. The only relationship which revealed a significant between-district (i.e., wholes) effect was stealing and service at WABA II, but there was neither a statistically nor practically significant difference between stealing nor service at WABA I. The results of WABA II suggest that ethical climate is at a lower level (store or individual) than the district level of analysis.

Exploratory Investigation of Store Level of Analysis

The results of testing hypotheses 5 and 6 suggested that ethical climate was at a level lower than the district level of analysis. It was unlikely that it was at a higher level since WABA II failed to find significant between group differences on districts. As discussed in the previous chapter, questionnaire respondents were not asked to identify the store in where they worked which made it impossible to examine the unethical behavior and ethical climate relationship below the district level of

analysis. Since the store level of analysis was a likely candidate, and profitability and shrinkage data had been collected at that level, the profitability and shrinkage data were used to examine between-store differences.

Profit and shrinkage variables for years 1987, 1988, and 1989 were analyzed at both the store and district levels of analysis for the purpose of making comparisons. (Although 1986 was also collected, it was not used because of unavailable shrinkage data.) These data were adjusted for the number of employees in each district (for the district level) or store (for the store level) to account for the differences in district/store size. Because the primary concern was for whether or not profit and shrinkage were based on group membership (i.e., stores or districts), WABA I was used at each level of analysis to determine the within- and between-group variation in the variables. The same criteria for WABA I that was used in testing hypotheses 5 and 6 were appropriately applied in this analysis. Thus, statistically and practically significant differences were determined based on F values and E ratios, respectively.

At the district level of analysis, profit and shrinkage, for each year, were examined separately to determine whether or not between- or within-district differences existed based on year. The results of the statistical significance test for WABA I on profit and shrinkage (Table 43 on page 104 and Table 44 on page 104) showed that there were statistically significant differences between the districts for each year. In 1989 the profit F-value was 2.28 ($p > .0001$) with an R^2 of .1832. The R^2 for profits in 1988 was .4572 ($F = 8.57, p > .0001$). Likewise, there were highly significant profit differences between districts in 1987 ($F = .670, p > .0001$) with an R^2 of .3972.

Table 43. ANOVA for between-district statistical differences in profits (WABA I)

1989					
Source	df	SS	F	P >	R-Square
Model	35	229777098	6.48	.0001	.3893
Error	356	360410397			
1988					
Source	df	SS	F	P >	R-Square
Districts	35	227877012	8.57	.0001	.4572
Error	356	270503603			
1987					
Source	df	SS	F	P >	R-Square
Districts	35	219389658	6.70	.0001	.3972
Error	356	332910480			

The shrinkage results of WABA I yielded findings similar to those from the profit analysis. There were statistically significant between-district differences in shrinkage for each year. The R^2 for 1989 was .1847 ($F = 2.30$, $p > .0001$), 1988 was .1805 ($F = 2.24$, $p > .0001$), and for 1987 $R^2 = .1427$ ($F = 1.69$, $p > .0101$).

Table 44. ANOVA for between-district statistical differences in shrinkage (WABA I)

1989					
Source	df	SS	F	P >	R-Square
Model	35	1695762	2.30	.0001	.1847
Error	356	7484713			
1988					
Source	df	SS	F	P >	R-Square
Districts	35	1773247	2.24	.0001	.1805
Error	356	8051881			
1987					
Source	df	SS	F	P >	R-Square
Districts	35	6735230	1.69	.0101	.1427
Error	356	40471556			

The results of the analysis on both profit and shrinkage revealed statistically significant differences in each year. The next step was to determine if there was also practically significant differences between the districts on both variables. E ratios were calculated for profit and shrinkage for each year. As a reminder, an E ratio equal to or greater than 1.303 indicates that the between-group variation is more highly correlated with the total variation. An E ratio equal to or less than .767 indicates that the variance is not highly correlated with the total variation, while an E ratio equal to 1 indicates that the total variation is comprised equally of between-group and within-group variation (Dansereau et al., 1984).

The E ratios for each year of profit and shrinkage are shown in Table 45 on page 105. Between-district practically significant differences were not found based on analysis for each year. While the E ratios for profits were above .767, they were less than 1 for each year. For 1989 $E = .7985$, 1988 $E = .9178$, and 1987 $E = .8118$. These E ratios on profit indicate that the results are equivocal because neither is the within nor the between variation equally or more correlated with the total variation than the other. Thus, despite statistically significant between-district differences, the practical between-district significance test failed.

Variables	η_{BX}	\div	η_{WX}	=	E ratio
1989 Profit	.6240		.7815		.7985
1988 Profit	.6762		.7367		.9178
1987 Profit	.6303		.7764		.8118
1989 Shrinkage	.4298		.9029		.4760
1988 Shrinkage	.4248		.9053		.4693
1987 Shrinkage	.3777		.9259		.4080

Between-district practical significance also failed in the differences based on shrinkage. However, unlike the profit results, there was a strong indication that within-district variation was highly correlated to the total variation. Each of the E ratios for shrinkage were below .767. Specifically, for 1989 $E = .4760$, 1988 $E = .4693$, and for 1987 $E = .408$.

WABA II was used to determine whether or not, at the district level of analysis, a high level of profitability in a given year resulted in a concomitant high level of shrinkage. Practical and statistical difference and magnitude tests were conducted and their results were examined (see Table 46 on page 106).

The results of WABA II show that a practically significant difference existed for 1987 ($A = .28$) and 1988 ($A = .30$). However, the differences in both years were not statistically significant ($Z = 1.57$ and 1.62 , respectively). Yet, for the same years both the practical and statistical magnitude tests were passed showing that the between magnitude was significant and the within was not. For 1987, $R_{BXY} = .31$ and $t_{BXY} = 1.77$. For 1988, $R_{BXY} = .38$ and $t_{BXY} = 2.17$. For 1989, there were no practically or statistically significant differences or magnitudes. Because of a lack of a statistically significant difference between the districts on profitability and shrinkage, the results are equivocal.

Table 46. Results of difference and magnitude tests for profit with shrinkage, by year, at the district level of analysis (WABA II)

	Difference Tests		R_{BXY}	Magnitude R_{WXY}	Tests	
	A_{BW}	Z_{BW}			t_{BXY}	t_{WXY}
Profit with Shrinkage:						
1987	.28†	1.57	.309†	.023	1.77 *	.434
1988	.30†	1.62	-.378†	.067	2.17 *	1.26
1989	-.02	-.054	-.167	.182	-.959	3.434**
* $p < .05$						
** $p < .01$						
*** $p < .001$						
†15°						
††30°						

The district level of analysis was further examined with the profit and shrinkage data by conducting WABA I on both variables for the three years combined. In other words, for each district the profit and shrinkage data for 1987, 1988, and 1989 were examined together without regard for year. By combining the years, the between and within differences between the variables could be examined longitudinally (see Markham & McKee, 1991). The results of statistical and practical significance tests for both profit and shrinkage are shown in Table 47 on page 107.

Table 47. Statistically and practically significant difference tests for profit and shrinkage, longitudinally, district level					
Profit					
Source	df	SS	F	P > F	R-Square
Model	35	4749752552	17.93	.0001	.8971
Error	72	544876708			
$\frac{\eta_{BX}}{\eta_{WX}} = E = 2.95$					
Shrinkage					
Source	df	SS	F	P > F	R-Square
Model	35	41336867	3.33	.0001	.6182
Error	72	25532992			
$\frac{\eta_{BX}}{\eta_{WX}} = E = 1.27$					

Both statistically and practically significant differences were found for profit. The F-value (17.93) was significant at $p > .0001$ with an $R^2 = .8971$. The E ratio was 2.95 which indicated a strong degree of correlation between the between-district variation and total variation. For shrinkage, on the other hand, there was a statistically significant between-district difference ($F = 3.33$, $p > .0001$, $R^2 = .6182$) and a practically significant difference (though barely). The E ratio (1.27) when rounded meets the criterion found finding between-group practical significance. Thus, for both profit and shrinkage, longitudinally, there were significant practical and statistical differences between the districts. These results are indicative of a wholes condition at the district level of analysis for these variables when viewed longitudinally.

WABA II examined whether through time high levels of profits were associated with increasing levels of shrinkage. It was found that neither practically nor statistically significant differences or magnitudes existed as shown in Table 48 on page 108.

Table 48. Results of difference and magnitude tests for profit with shrinkage, longitudinally, district level (WABA II)						
	Difference Tests		R_{BXY}	Magnitude Tests R_{WXY}	Tests	
	A_{BW}	Z_{BW}			t_{BXY}	t_{WXY}
Profit with Shrinkage:						
1987, 1988, 1989	-0.05	-0.235	-0.005	.064	-0.029	1.24
* $p < .05$						
** $p < .01$						
*** $p < .001$						
†15°						
††30°						

At the store level of analysis, the profit and shrinkage variables were each examined, with the combined years for the data, adjusted for store employee size. As shown in Table 49 on page 109, both profit and shrinkage passed the test for statistically significant differences between the stores. The F-value was 6.98 ($p > .0001$) for profit with an $R^2 = .7760$. The F-value for shrinkage was 1.40 ($p > .0001$) with an $R^2 = .4101$. The results of the practical significance difference test were not the same for profit and shrinkage however. The E ratio for profit was 1.86 which indicated significant between-store differences, while the E ratio for shrinkage (.8338) indicated equivocal results. Profit, therefore, passed both difference tests and shrinkage only passed the statistical significance test.

Table 49. Statistically and practically significant difference tests for profit and shrinkage, longitudinally, store level					
Profit					
Source	df	SS	F	P > F	R-Square
Model	360	126583854128	6.98	.0001	.7760
Error	725	36536972650			
$\frac{\eta_{BX}}{\eta_{WX}} = E = 1.86$					
Shrinkage					
Source	df	SS	F	P > F	R-Square
Model	360	4616156215	1.40	.0001	.4101
Error	725	6640008697			
$\frac{\eta_{BX}}{\eta_{WX}} = E = .8338$					

Analyses were conducted to determine whether or not differences existed between the stores based on profits with shrinkage. More specifically, WABA II examined if, longitudinally, increases in profits were associated with increases in shrinkage. The results (see Table 50 on page 109) show that there were only statistically significant between- and within-differences in magnitude but no other practical or statistical significance tests were passed.

Table 50. Results of difference and magnitude tests for profit with shrinkage, longitudinally, store level (WABA II)					
	Difference Tests		Magnitude Tests		
	A_{BW}	Z_{BW}	R_{BXY}	R_{WXY}	I_{BXY} I_{WXY}
Profit with Shrinkage:					
1987, 1988, 1989	.08	1.08	.213	.137	4.030*** 3.689***
* p < .05 ** p < .01 *** p < .001 †15° ††30°					

Based on the results of WABA I at the district and store levels of analysis, it can be concluded that profit can appropriately be examined at the store and district levels because of between-district/store differences. Although the result was not the same for shrinkage, the analysis for profit and

shrinkage provides some evidence that the store level of analysis may be the operative unit for examination of climate.

Hypothesis 7

There is a statistically significant difference between the ethical climate of the supervisors and their subordinates.

Hypothesis 7 attempted to ascertain the level of influence supervisors had on the ethical climates and behaviors of their corresponding subordinates. Analyses could not be conducted between the store managers and their subordinates in each district because, as previously discussed, data were not obtained at the store level. It had been expected, however, that hypothesis 7 would be tested by making comparisons between the district managers and all the employees within their districts. Unfortunately, the district managers did not identify themselves on the questionnaires which was essential for this analysis. Therefore, this hypothesis was tested vicariously with two sets of analyses. First, as planned, *t* tests were used to examine the differences between supervisors and subordinates on each type of ethical climate and unethical behavior. However, all of the supervisors in the districts were compared to all of the subordinates in the districts. While this was not an ideal test of the influence of supervisors on subordinates, the lack of between-district differences found from testing hypotheses 5 and 6 suggests that this test may appropriately provide some preliminary insight on this phenomenon (although, admittedly, weak). While inferences from the results of this analysis must be cautiously inferred, the results were, nevertheless, noteworthy. As shown in Table 51 on page 111, all of the comparisons on ethical climates and unethical behaviors between the supervisors and subordinates showed nonsignificant differences between the two groups.

Variable	Group	n	Mean	Std. Dev.	t	p > t
Instrumental	Supervisors	211	2.58	.720	-.003	.9976
	Subordinates	202	2.58	.831		
Service	Supervisors	211	3.90	.755	-.497	.6196
	Subordinates	202	3.94	.773		
Law and Code	Supervisors	211	3.64	.814	-1.891	.0594
	Subordinates	202	3.79	.818		
Caring	Supervisors	211	2.93	.514	.125	.9006
	Subordinates	202	2.92	.565		
Independence	Supervisors	211	2.34	.765	-.943	.3462
	Subordinates	202	2.42	.916		
Following Orders	Supervisors	211	.043	.174	1.443	.1490
	Subordinates	202	.022	.120		
Accomplice	Supervisors	211	.029	.129	1.713	.0878
	Subordinates	202	.012	.070		
Stealing	Supervisors	211	.021	.113	.226	.8214
	Subordinates	202	.018	.101		
Lying	Supervisors	211	.032	.138	-1.713	.0875
	Subordinates	202	.059	.185		

The influence of supervisors on subordinates was also measured from an item on the questionnaire that was not intended for use in this study. Since hypothesis 7 could not be tested as originally planned, it was necessary to augment the comparisons which were made between all subordinates and all supervisors in the districts with any additional appropriate test. The item used asked employees to rank order the source which had the most influence on their ethical behavior. The item as it was used in the questionnaire is shown in Table 52 on page 112

Table 52. An additional item used to measure the influence of supervisors on subordinate unethical behavior and ethical climate

Listed below are factors that many people believe influence ethical behavior. Rank them in order of their influence or contribution to your ethical behavior at (name of organization).

- a. behavior of superiors
- b. behavior of co-workers
- c. society's moral climate
- d. the ethical practices of one's profession
- e. formal organizational policy (or lack thereof)

Most Influence _____ Second _____ Third _____ Fourth _____ Fifth _____

The item was used in Posner and Schmidt (1984), Brenner and Mollander (1977), and Baumhart (1966). The ranking was calculated in the previous studies which used it, and this study, on a scale of 1 (most influential) to 5 (least influential). The rankings were analyzed by obtaining the mean value for each source of influence. This method was consistent with past uses of the item which makes it possible to compare the results from this investigation across other studies which have used this measure.

The results of using the ranking item to assess the influence of supervisors on ethical climate and subordinates' unethical behavior are presented in Table 53 on page 113. The lowest mean was for the behavior of supervisors ($\bar{x} = 2.52$). This suggests that those employees who responded to this item considered their superiors to be the most influential in their unethical behavior. The behavior of co-workers had the second lowest mean ($\bar{x} = 2.76$) which would suggest that co-workers are also highly influential in employees' unethical behavior. The behavior of superiors and co-workers were followed by society's moral climate ($\bar{x} = 3.02$), practices of one's profession ($\bar{x} = 3.25$), and formal organizational policy ($\bar{x} = 3.45$).

Source	n	Mean	Std. Dev.	Minimum	Maximum
Behavior of superiors	407	2.516	1.436	1.000	5.000
Behavior of co-workers	405	2.763	1.445	1.000	5.000
Society's moral climate	405	3.020	1.348	1.000	5.000
Ethical practices of one's profession	405	3.247	1.314	1.000	5.000
Formal organizational policy (or lack thereof)	405	3.452	1.318	1.000	5.000

Although hypothesis 7 could not be tested as originally planned, the results of the two analyses which were conducted suggest that supervisors do influence their subordinates unethical behavior. This finding was consistent with previous research (e.g., Posner & Schmidt, 1984; Hegarty & Sims, 1979). Significant differences were not found between supervisors and subordinates on neither ethical climates nor unethical behaviors. This finding, augmented by the store employees' indicating that superiors were the most influential in their unethical behavior, provides support for hypothesis 7.

Hypotheses 8 and 9

Profit is negatively related to instrumental ethical climates and positively related to caring, independence, service, and law and code ethical climates after statistically controlling for gender, age, tenure, and education.

Shrinkage is positively related to instrumental ethical climates and negatively related to caring, independence, service, and law and code ethical climates after statistically controlling for gender, age, tenure, and education.

Hypotheses 8 and 9 tested the relationship between firm performance data and the ethical climates. After the demographic variables, each type of ethical climate was regressed separately on profit-

ability (Table 54 on page 114) and shrinkage (Table 55 on page 115). As stated earlier, the profitability and shrinkage data were adjusted for the number of employees in each district in order to account for the differences in the size of each district. Since the mean ethical climate variables were used in this analysis, they were also adjusted to reflect the total number of employees in each district by dividing the number of employees in each district by the ethical climate mean score for the district.

Table 54. Summary of regression results for profitability and ethical climates					
Caring					
Source	df	SS	F	P >	R²
Model	5	431428644	1.91	.1214	.2419
Error	30	1352020403			
Instrumental					
Source	df	SS	F	P >	R²
Model	5	343881419	1.43	.2410	.1928
Error	30	1439567628			
Service					
Source	df	SS	F	P >	R²
Model	5	386521470	1.66	.1748	.2167
Error	30	1396927577			
Law and Code					
Source	df	SS	F	P >	R²
Model	5	288772288	1.16	.3519	.1619
Error	30	1494676759			
Independence					
Source	df	SS	F	P >	R²
Model	5	401716053	1.74	.1549	.2252
Error	30	1381732994			

Hypothesis 7 was not supported. The relationships between profitability and ethical climates in the districts were found to be nonsignificant since none of the models had significance levels above .05. Thus, profitability was not shown to be related to the ethical climates.

Similar to profitability, shrinkage was not shown to be related to the five ethical climates. The F values for all of the models were nonsignificant.

Table 55. Summary of regression results for shrinkage and ethical climates					
Caring					
Source	df	SS	F	P >	R²
Model	5	1139540	.61	.6928	.0923
Error	30	11207392			
Instrumental					
Source	df	SS	F	P >	R²
Model	5	1253888	.68	.6433	.1016
Error	30	11093044			
Service					
Source	df	SS	F	P >	R²
Model	5	950127	.50	.7736	.0770
Error	30	11396805			
Law and Code					
Source	df	SS	F	P >	R²
Model	5	824282	.43	.8246	.0668
Error	30	11522650			
Independence					
Source	df	SS	F	P >	R²
Model	5	1405872	.77	.5782	.1139
Error	30	12346932			

Neither hypothesis 8 nor hypothesis 9 was supported. None of the models for either profitability or shrinkage with the ethical climates were found to be significant. Therefore, support for these hypotheses was not provided based on their tests.

Summary of the Results

Analyses were conducted to test nine hypotheses which related to four propositions concerning ethical climates and ethical behaviors. Hypotheses 1 and 2 dealt with the relationship between ethical climates and different types of organizational units. It was expected that the instrumental climate would be most prevalent in the stores compared to the credit centers and central office (hypothesis 1). However, there were no differences between the groups on instrumental climate. It was also expected that the law and code climate would be most prevalent in the credit centers and central office (hypothesis 2). Law and code did have the highest mean for the credit center but not the central office. Therefore, *hypothesis 1 was rejected* and *hypothesis two was partially supported*.

Hypotheses 3 and 4 tested the relationship between the ethical climates and ethical behavior at the individual level of analysis. Hypotheses 5 and 6 examined these relationships at the district level of analysis. *Hypotheses 3 and 4 were partially supported*. At the individual level of analysis, in the models where caring, service, law and code, and independence climates were significant, they were all negatively related to unethical behavior as hypothesized. On the other hand, as hypothesized, the instrumental climate was positively related to the unethical behaviors in the models that were statistically significant. At the district level of analysis, *hypotheses 5 and 6 were not supported*. The only statistically and practically significant relationship between the climates and behaviors at the district level of analysis was stealing with service. However, the relationship was shown to not be related to group membership.

The influence of supervisors on subordinates unethical behavior was examined in hypothesis 7. It was found that from a list of six sources of possible influence, employees reported that their superiors were the most influential. In a different analysis, there were no statistically significant differences between the climate and behaviors of all the supervisors compared to all the subordinates in the stores. Thus, *hypothesis 7 was supported.*

The last set of hypotheses examined the relationship between the ethical climates and profits and shrinkage. *Hypotheses 8 and 9 were rejected.* The models of the relationships between the variables were all nonsignificant. Thus, according to the results, there was no relationship found between the ethical climates and profit or shrinkage.

In regard to the control variables. Only in the relationships between lying and the ethical climates which were tested in hypotheses 3 - 6 were the control variables significant. Gender was significant in all the models which dealt with lying behavior and age and education were additionally significant in the models with lying and instrumental, caring, and independence.

The results of all of the analyses conducted in this chapter are discussed in Chapter 5. The next chapter also provides implications of these findings for research and practice.

CHAPTER FIVE: SUMMARY, LIMITATIONS, AND IMPLICATIONS

INTRODUCTION

Purpose of the study

The main purpose of the study was to examine the relationship between five different types of ethical climates and four types of ethical (or unethical) behavior. The underlying research question was "Do particular types of ethical climates promote ethical (or unethical) behavior?" Drawing extensively from the work of Victor and Cullen (1987; 1988), their typology was used as a framework for delineating between ethical climates which are most likely to foster ethical or unethical behavior. Based on ethical, organizational, and economic theories, an instrumental climate was hypothesized as being the most probable ethical climate in which a considerable amount of unethical behavior would occur. The reason for this relationship is that an instrumental climate is based on a belief (i.e., egoism) that one's concern for his or her exclusive self-interest is, and should be, paramount -- regardless of the interest of others. Conversely, the four remaining climates in Victor and Cullen's typology -- caring, law and code, rules, and independence -- were hypothesized to promote ethical behavior because they are derived from deontological and utilitarian ethical theories which require consideration of the interest of all parties affected by ethical decisions. Similarly, a relationship between the ethical climates and firm performance was also hypothesized; in instru-

mental climates firm performance would be adversely affected but, enhanced in the caring, law and code, rules, and independence climates.

The influence of supervisors on ethical climate and subordinates' ethical behavior was also examined. Previous research (e.g., Posner & Schmidt, 1984; Zey-Ferrell et al., 1979) has found significant influences by supervisors on their subordinates ethical behavior. Similar findings were expected for this study.

Importance of the Research

The results of this research are important for several theoretical and practical reasons. First, from a theoretical perspective, this study constitutes the third test of the existence of ethical climates in an organizational setting. Two previous studies were conducted by Victor and Cullen who used an instrument they developed in order to measure and determine which types of climates might be found in organizations or organizational units. Five different types of ethical climates were the result of their research. In order to provide more evidence to substantiate Victor and Cullen's work, and, moreover, to validate their typology, more research was needed. This present research effort presents additional evidence concerning the validity of the ethical climates. It extends the work of Victor and Cullen through examining the relationship between ethical climate and behavior. This extension of Victor and Cullen's work provides results from a first attempt in conceptually and empirically making the link between ethical climate and behavior.

The practical importance of the research deals with the extent to which managers may be able to shape and manage the type of ethical climate prevalent in their subordinate groups. By knowing that specific types of ethical climates have been found to exist which may be more likely to foster certain ethical behaviors, managers can become proactive in taking the appropriate measures to increase the likelihood of obtaining a greater degree of ethical behavior from employees. In addition, knowing that empirical evidence has shown, yet again, that supervisors have a strong influence

on subordinates ethical behavior, managers might be encouraged to become more exemplary in their ethical conduct.

The remainder of this chapter provides a discussion of the results from testing the nine hypotheses that were reported in Chapter Four. The discussion focuses on ethical climate as a viable and valid construct, its relationship to ethical behavior, and the factors which influence its nature. The chapter closes by noting, based on the findings, some important theoretical and practical implications of the research in light of the study's methodological limitations.

ETHICAL CLIMATES AND BEHAVIOR

Overview of the Results From Testing the Hypotheses

Hypotheses 1 and 2 tested the differences between the ethical climates in the credit centers, central office, and stores. It was hypothesized that the instrumental climate would have the highest mean for the stores and a law and code ethical climate would have the highest mean in both the credit centers and the central office. This hypothesis was based on Ouchi's (1981) transaction-cost typology. In his typology, an organization with a market form of governance (stores) would be most susceptible to self-interested behavior and an organization characterized by a bureaucratic form of governance (credit centers and central office) would be inundated with rules to control members' behavior. According to the findings, an instrumental climate was not most prevalent in the stores compared to the other units, a result that fails to support hypothesis 1. In testing hypothesis 2, law and code was the most prevalent climate for the credit centers but not the central office. Partial support was therefore concluded to have been found for hypothesis 2.

The next set of hypotheses examined the nature of the relationships between the five types of ethical climate and the four types of unethical behaviors. These relationships were tested at the individual level (hypotheses 3 and 4) and district level (hypotheses 5 and 6). Instrumental climate was ex-

pected to be positively related to unethical behavior and the four other climates were expected to be negatively related. At the individual level of analysis, independence, law and code and service were negatively related to lying. Stealing was negatively related to caring, service, and law and code. Instrumental was positively related, and independence negatively related to, being an accomplice. Finally, at the individual level of analysis, independence, caring, and law and code were negatively related to failing to follow orders. It was quite clear that some of the hypothesized relationships were significant and others were not. Yet, all of the significant relationships were in the hypothesized directions. Of special note was the finding that instrumental climate was positively related to all of the behaviors, although only one of the relationships was statistically significant. Based on these findings it can be concluded that hypotheses 3 and 4 were partially supported.

At the district level of analysis, service was statistically and practically, negatively related to stealing. However, this relationship was not shown to be related to employees being a member of a district. Therefore, hypotheses 5 and 6 were not supported.

Hypothesis 7 considered the influence supervisors have upon subordinates' ethical climates and unethical behavior. Two measures were used in this analysis, both of which provided evidence that supervisors were influential. However, as noted in Chapter 4, one of the measures examined all of the supervisors' ethical climates and behaviors compared to all of the subordinates'. Although no statistically significant differences were found between the two groups, the finding must be cautiously interpreted since subordinates could not be matched with their specific supervisors. Nevertheless, since subordinates indicated by rank-order that supervisors were the most influential on their unethical behavior, both measures considered together, provide some support for the hypothesis.

Hypotheses 8 and 9 examined the relationship between ethical climate and firm performance as operationalized by company profitability and shrinkage data. Instrumental climate was expected to be negatively related to profitability and negatively related to shrinkage. The converse was hy-

pothesized for the remaining climates. No statistically significant relationships were found between any of the five ethical climates and either profitability or shrinkage. Thus, hypotheses 8 and 9 were not supported.

Evidence for Different Types of Ethical Climates

The findings concerning the analysis conducted prior to, and after, the tests of the hypotheses provide considerable insight for the validation of the ethical climate construct, and, more specifically, Victor and Cullen's typology. Based on the replication of the factor analytic structure obtained by Victor and Cullen and the criteria for establishing the existence of a climate in an organizational setting, inferences concerning the existence and salience of ethical climates for this study and other work settings can be made.

Replication of Victor and Cullen's Factor Structure

Four of the five factors Victor and Cullen identified from conducting a factor analysis on the ECQ items were replicated. The climates replicated were law and code, independence, instrumental, and caring. Contrary to Victor and Cullen's findings, the items representing a rules ethical climate did not constitute a distinct factor in this study. However, many of the items for a rules climate were contained in the law and code factor structure. This was not surprising since items for the rules and law and code factor structures in Victor and Cullen's research were closely related. Examples of items from both factor structures may help to make this point more clear. "In this company, the first consideration is whether a decision violates any law," and "In this company, people are expected to follow strictly legal and professional standards," were both included in Victor and Cullen's law and code factor. Whereas, rules items such as, "It is very important to follow strictly the company's procedures here," and "Everyone is expected to stick by the company rules and procedures," may not be different enough for respondents to see that one set of questions (law and code) refers to the "law of the land" and the other set refers to the rules and policies of their company.

A set of four items constituted a factor which was clearly distinctive and different from any factors in Victor and Cullen's research. Since most of the items related to customer service, the factor labeled "service". Three of the service ethical climate items were derived from the utilitarian/cosmopolitan theoretical perspective and the remaining item was from the egoism/cosmopolitan perspective. The four items had a high degree of internal consistency ($\alpha = .85$).

A question which immediately arises: "Why was a service ethical climate found in this research and not Victor and Cullen's?" Since this was a service industry which promoted and demanded from its employees good customer service, adhering to the needs of the customer was a matter of company policy. Many of the explicitly and implicitly stated rules were aimed at fostering good customer relations. Since a climate, by definition, consists of employees' perceptions of the policies and practices of their work group, it is not too surprising that items relating to customer service formed a separate and distinct factor. In fact, previous research has found support for a service climate in a banking organization (e.g., Schneider et al., 1980). Although the present research deals with ethical climates, it is likely that a service climate and a service ethical climate capture the essence of the same construct. In fact, a few of the items used in Schneider et al.'s (1980) research were similar to the items in the ECQ.

Joyce and Slocum's Criteria for a Climate

Joyce and Slocum (1984) suggested three criteria for validating aggregate climate: 1) discriminability, 2) predictability, and 3) internal consistency. Discriminability is the extent to which there are demonstrable differences between the groups of interest according to mean perceptions. Predictability is the extent to which there are predictable relationships to organizational or individual criteria. Internal consistency refers to the degree of agreement in perceptions within aggregate climates. Although many studies have used some, but not all three criteria, Joyce and

Slocum (1984) were able to show that logically and empirically all three criteria must be met in order to show construct validity. In general, all three are necessary because one would expect climates to be distinguishable between work groups since climates, by definition, consist of the perceptions of the policies and practices within a work group. Because climates are made of "shared" perceptions, it follows that there should be little variance among workers in a group concerning their perceptions of the climate. And, to some extent, the relationship between climate and behavior should be predictable.

Discriminability. Hypotheses 5 and 6 addressed the discriminability criterion. These hypotheses examined whether or not there were differences in climate based on district membership. It was expected that significant differences would be found between the districts. On the contrary, neither statistically nor practically significant differences were found. This finding was surprising because the company had structured the retail stores in districts so that the district manager for each district would implement and monitor the effectiveness of company policy for the stores in his or her district. In the company's view, the district and its manager were supposed to represent the company in the eyes of each store employee. If that is in fact the case, a similarity in employees' perceptions of the climate within each district should have been found. Since this similarity was not found, it may be that the district and its manager do not represent the company in the eyes of each employee or the districts are not appropriate for aggregation. It may be that the store represents the company to store employees.

As discussed previously in Chapters 3 and 4, store employees were not asked to reveal their personal identities or the identity of the store in which they worked. The lack of store-level data made it nearly impossible to determine whether differences existed between stores. However, exploratory analyses were conducted by using store profitability and shrinkage data in an effort to determine whether or not significant differences occurred between the stores. The unstated hypothesis which drove this additional investigation was that significant differences in performance would be found between stores. This would occur because if the store is the operative unit for ethical climate, and

if there is a relationship between climate and behavior, then the policies and practices of each store would be reflected in the behavior of the employees. It would also follow that differences in the policies and practices of each store, as well as ethical climate, would affect the profitability and shrinkage of the store. The results of the exploratory analysis with the store profitability and shrinkage data did, in fact, show that there were significant differences in profit between stores. However, there were not significant between-store shrinkage differences.

All things considered, the discriminability criterion was not met when differences in ethical climate or ethical behavior between the districts were considered. Discriminability in profitability was found between the stores, but not in shrinkage. This latter finding suggests that the more appropriate level of aggregation may be the stores, not the districts. As noted earlier, while several studies have used the discriminability criterion alone to validate climate (Drexler, 1977; Howe, 1977), Joyce and Slocum (1984) have made the argument that all three criteria must be considered in the validation of a particular climate. Thus, the remaining criteria will be discussed even though, at the district level, the discriminability criterion failed to be met. It is likely that since the appropriate level of aggregation may be at the stores, then the findings from an examination of the two remaining hypotheses may provide some insight for what may occur at the lower (store) level.

Predictability. The predictability criterion examines whether or not predictable relationships to organizational or individual criteria are met. Before the predictability of relationships for the employees in the stores are discussed, as a brief point of departure from the preceding discussion, the results of testing hypotheses 1 and 2 will be reviewed. The predictability criterion was used to test a hypothesis which originated in Victor and Cullen's research. This criterion was examined for the relationship between Ouchi's transaction-action cost economics and organizational units and between ethical climate and behavior within the stores. Ouchi's (1980) transaction-cost economics typology was used by Victor and Cullen as a basis for determining the type of ethical climate a specific type of organization would have. According to Ouchi, there are organizations which have either a clan, market, or bureaucratic form of governance. Victor and Cullen reasoned that because

a market exercised the least amount of control on its workers this form of governance would be the most susceptible to self-serving behavior and therefore exhibit an instrumental type of ethical climate. A bureaucracy, in contrast, maintains the most control over its employees through its rules and should have a law and code type of climate. These two types of organizations were represented in the major organizational units of the research site. The credit centers and central office represented a bureaucracy and the stores represented a market. The market form of governance has not been examined in previous research.

The present research examined whether the hypothesized relationships between ethical climates and the different transaction-forms existed for this research sample. If there was support for the relationships, then the predictability criterion, based on Ouchi's organizational types, would have been met.

Only with the law and code climate for the credit centers was the predictability criterion met. The highest mean for the stores was the service ethical climate, not the instrumental climate. As a matter of fact, the instrumental climate was the fourth most prevalent climate in the stores. A possible explanation for this finding in the stores is that the main emphasis, by way of policy and practice, was on providing good customer service in order to stimulate and maintain sales. It goes without saying that this emphasis could have been transformed into a climate for service among store employees. This suggests that if a climate for service was prevalent in the stores, then store employees may be using utilitarian bases for ethical decision-making rather than egoism as was hypothesized. This notion calls into question Victor and Cullen's rationale for believing that an instrumental climate would be more prevalent in an organization with a market form of governance. While Victor and Cullen readily acknowledge that many climates might operate simultaneously in organizations, in service organizations, the concern for, and policies that attend to, the needs of constituents may generate self-serving behavior that is secondary to meeting customers' needs. Thus, it is likely that a service type of ethical climate would predominate and not an instrumental ethical climate.

The hypothesized relationships between the credit centers, the central office, and ethical climate were somewhat supported. Law and code was expected to be the most predominant climate in both of these groups because both groups exemplified bureaucracies. For the credit centers, law and code was the most predominant climate followed by a service ethical climate. Since the credit centers provided support for the stores by handling customer credit accounts, and on occasion communicated directly with customers, it was highly possible that the credit center employees were also inundated with some of the same customer service policies and directives as the store employees. Nevertheless, the results suggest that this bureaucratic form of governance does have as its major emphasis attending to the rules, laws, and codes of the organization and larger society.

For the central office, however, the predicted relationship did not hold true. The service climate received the highest mean which indicated that it was the most predominant. In second place was the law and code ethical climate. Again, as was discussed with the credit centers, it is likely that the emphasis on service from a company perspective was more prevalent in the central office than in the credit centers because the company-wide emphasis on service would have come from the central office. Moreover, since the central office employees included employees who performed a diversity of functions, it is likely that many of them were not subjected to the rules and regulations of the company as was the case with the credit center employees. This suggests that there might be different levels of bureaucracies in the service industry that, depending on the function of the organization, may shift from an emphasis on following rules, laws, and policies to emphasizing meeting the needs of the organization's clientele.

Overall, while one of the predicted relationships held true (i.e., credit centers and law and code), the expected relationships between the other forms of governance and climates were not supported. A more general explanation for not finding support is that this was one organization divided into three parts. It could have been that the differences in the units did not approximate to a full enough extent the forms of governance they were intended to represent. This could be true for the stores

and central office since both were high on service and law and code ethical climates. If these units had been separate and distinct organizations, the hypothesized differences in predominant climates may have been found for all three units and not just one. Nevertheless, since the functions of the three units were sufficiently different and matched the definitions for the transaction-forms, the expected differences should have surfaced. Therefore, these findings suggest the need for a closer examination of the role of service ethical climates in organizations.

The predictability of the relationships between the ethical climates and ethical behaviors was examined for the store employees in hypotheses 3-6. As discussed in Chapter 3, these relationships were examined at the individual (hypotheses 3 and 4) and district (hypotheses 5 and 6) levels of analysis. At the individual level of analysis, some of the hypothesized relationships were significant and others were not (see Table 56 on page 129). While the independence ethical climate was negatively related to lying, being an accomplice, and failing to follow orders however, it was not significantly related to stealing. A service ethical climate was negatively related to stealing and lying but not to the other two types of behavior. Caring was negatively related to all of the unethical behaviors except lying. The law and code ethical climate was negatively related to all of the behaviors except being an accomplice. An instrumental ethical climate was hypothesized to be positively related to all the unethical behaviors. However, only being an accomplice was significantly related to the instrumental climate.

Table 56. Summary of the predictability of ethical climates and behaviors at the individual level of analysis				
ETHICAL CLIMATES	UNETHICAL BEHAVIORS			
	Lying	Stealing	Orders	Accomplice
Independence	-	-(n.s.)	-	-
Instrumental	+(n.s.)	+(n.s.)	+(n.s.)	+
Caring	-(n.s.)	-	-	-
Service	-	-	-(n.s.)	-(n.s.)
Law and Code	-	-	-	-(n.s.)

+ = statistically significant positive relationship
 - = statistically significant negative relationship
 n.s. = nonsignificant relationship

One can only speculate as to why eight of the twenty relationships were not significant. This is the first study to examine ethical climate and ethical behavior. Only after more research, using the same as well as different measures applied to the same and different samples, can a plausible explanation be rendered.

At the district level of analysis, only one hypothesized relationship was found to have practical and statistical significance -- stealing and service. However, based on WABA, the relationship was not due to group membership. Thus, the predictability criterion at this level becomes an irrelevant issue for this study since the discriminability criterion was not met.

Hypotheses 8 and 9 examined the relationship between profitability and shrinkage and the ethical climates. None of the climates were related to either measure of firm performance. The predictability criterion therefore fails to be met with these variables. Recent research, however, has found that firms with poor financial performance were not more likely to commit illegal behavior, for which they were convicted, than firms that were performing well (Baucus & Near, 1991). While this finding was not expected, Baucus and Near reasoned that, despite high or low performance, an organization's culture may predispose its workers to engage or not engage in illegal acts. Thus, the culture of the organization as a whole may have an impact on the extent of illegal behavior

occurring. The results of Baucus and Near must be interpreted cautiously with respect to the present research. First, Baucus and Near only examined companies that had been convicted of illegal behavior. Many unethical behaviors occur in organizations that are never reported. Secondly, since the store level of analysis was not examined and exploratory analyses suggested that the stores may be the appropriate level for aggregation, it is likely that interpretable results could only be gained from the store level and not the district level. Before any conclusions are reached concerning the results of the present research, it would be pertinent to examine the relationship between firm performance and ethical climates at the store level of analysis.

Internal consistency. The third criterion of Joyce and Slocum is internal consistency or the extent of agreement in perceptions within the level of aggregation. Within a group for which climate perceptions have been aggregated, it is expected that group members will share, in general, the same perception of the climate. Consequently, within-group variation would be expected to be small. However, a precondition of internal consistency is discriminability. Since discriminability was not found at the district level for the store employees, it becomes pointless to assess the reliability of the responses within the groups.

After a consideration of the three criteria suggested by Joyce and Slocum (1984) for establishing climate, the results of this research suggest that an ethical climate does not exist at the district level of analysis. Even though twelve of the twenty hypothesized relationships were correctly predicted, neither discriminability nor internal consistency was found between or within the groups. Therefore, it is highly likely that the appropriate level for aggregation was the stores, not the districts. Moreover, these results do suggest that, at least at the individual level of analysis, there is a relationship between ethical climate and ethical behavior. In the one model where an instrumental climate was related to unethical behavior (being an accomplice), as the strength of the climate increased so did the unethical behavior. For all of the other climates, unethical behavior decreased as the strength of the climates increased. While these results need to be replicated in order to help explain why all of the relationships were not statistically significant, a connection can be inferred.

Antecedents of Ethical Climate

Several antecedents have been conceptually identified as contributing to climates. Society’s norms, organizational structure, influence of supervisors, and personal characteristics have all been identified as having some impact on the emergence of climate in organizations. Two of these factors were examined in this study -- supervisory influence and personal characteristics. The influence of supervisors on subordinates’ ethical climate perceptions was tested in hypothesis 7.

In the first analysis, all of the supervisors in the stores were compared to all of the nonsupervisory store personnel on each type of ethical climate and behavior. No significant differences appeared between the two groups. Based on this finding alone, strong inferences cannot be made because supervisors were not matched with their corresponding work groups. However, the second analysis conducted does allow for a stronger inference, especially when considered along with past research.

In the second analysis conducted to test supervisory influence, employees were asked to rank-order those factors which had the most influence on their unethical behavior. These factors included: behaviors of superiors, behavior of co-workers, society’s moral climate, the ethical practices of one’s profession, and formal organizational policy (or lack thereof). The results of these findings were consistent with previous research (see Table 57 on page 131).

Table 57. Means of the present study and past research on rank-ordering of influences on unethical behavior				
SOURCE	RESEARCH FINDINGS			
	Present 1991	Posner & Schmidt 1984	Brenner & Mollander & 1977	Baumhart 1961
Behavior of superiors	2.52	2.17	2.15	1.9
Behavior of co-workers	2.76	3.30	3.37	3.1
Society’s moral climate	3.02	3.79	4.22	n/a
Ethical practices of one’s profession	3.25	3.57	3.34	2.6
Formal organizational policy (or lack thereof)	3.45	3.84	3.27	3.3

Respondents ranked the behavior of superiors as being the most influential in the present study ($\bar{x} = 2.52$, $N = 407$) just as was the case in the research of Posner and Schmidt (1984, $\bar{x} = 2.17$, $N = 1443$), Brenner and Mollander (1977, $\bar{x} = 2.15$, $N = 1227$), and Baumhart (1961, $\bar{x} = 1.9$, $N = 1531$). Thus, supervisors do appear to play a major role in shaping the ethical behavior of their subordinates.

Personal characteristics were also examined in several of the hypotheses. Gender, age, tenure, and level of education were controlled because of their purported relationships to the ethical climate and behavior variables. The support for the influence of control variables, however, was very weak. On examining the effects of the control variables in hypotheses 1 and 2, it was found that only in the models with lying and the unethical behaviors were the variables statistically significant. Gender was the only significant control in all of the models where lying made a significant contribution to the model. These models included lying with law and code, service, and independence. In the models where lying did not make a significant contribution, gender, age, and tenure were significant. Gender, obviously, was unequivocally important with respect to lying behavior and the ethical climates. Previous research however, has shown that there are differences between men and women on unethical behavior in general, not just lying. Why the other climates and behaviors did not have significant contributions by the controls is unclear.

The impact of the control variables on the relationships in the tests of hypotheses 5, 6, 8, and 9 were not considered. Aggregation was inappropriate at the district level of analysis (hypotheses 5 and 6). For hypotheses 8 and 9, relationships between ethical climates and measures of firm performance were all nonsignificant.

LIMITATIONS

There were some limitations to the present research. These limitations related to the friendly takeover of the company that occurred just prior to data collection, the instruments used to measure the variables, and the data collection process itself.

Takeover of the Organization

Just prior to data collection the organization was bought by a foreign firm in a friendly takeover. While the timing of the takeover was an unexpected event for the researchers, the employees had hints that a buyout was pending because of poor company performance. The announcement of the takeover, of course, caused some anxiety among workers. To somewhat relieve the workers, the new owners of the company announced that the initial changes in operations would be minimal. A month after the takeover was announced data collection was started. The month-long wait was thought by management, as well as the research team, to be a reasonable amount of time for a "cooling off." This may or may not have been enough time. It is likely that some employees, because of the new ownership, may have felt insecure, and as a result, may not have responded; those who did participate may not have responded candidly. This could explain why 118 respondents did not identify where within the company they worked. It could also explain why 87 of the store employees who responded did not identify the district in which their stores operated. If one considers the return rate alone (16 percent), then the verdict would probably be that the time allowed for employees' fears to settle was not enough. Yet, it also must be borne in mind that ethics research is notorious for low response rates (Randall & Gibson, 1990). While this fact is not justification for a low rate, it does help to put the attained rate in perspective.

On the other hand, employees who did respond may have felt more free to be candid in their responses because of the assurances given to them concerning confidentiality. Employees received letters from the research team and company to assure them of the confidentiality of all responses.

The company letter was from the outgoing management and the questionnaires were returned to the researchers and not to the company. In addition, the employees were free to respond at home, away from co-workers or supervisors. Given these procedures, it is highly likely that employees who did respond actually felt freer to do so. Therefore, although 84 percent of the employees surveyed did not respond, the 16 percent who did may have been very candid in doing so. In fact, one fifth percent of the respondents provided written comments concerning issues relevant to the company. A perusal of the comments would suggest that, based on the statements made, employees were quite candid in their responses.

Instruments

The instruments used to measure the variables representing the constructs create a second limitation. The Ethical Climate Questionnaire (ECQ) and Work Situation Questionnaire (WSQ) were survey instruments that constituted self reported measures of behavior and climate. The problems (e.g., social desirability response bias) associated with self report measures have been well documented elsewhere (Randall & Gibson, 1990). However as discussed in Chapter 3, for instrument development and research in a new area, this methodology was appropriate for initial exploration.

The ethical behavioral measure, as noted earlier, has limitations because respondents were not directly asked whether they would engage in certain unethical behaviors. The rationales which were used to reduce social desirability response bias may have affected the responses. However, high point-biserial correlations among the rationales (across vignettes) did not indicate that they were independent of each other.

Firm performance was measured by data made available from company records. It is possible, but not suspected for any reason, that some of the stores could have reported inaccurate data or stores could have inconsistently reported data. Four of the districts could not be used because of missing data and none of the 1986 data could be used because of missing shrinkage data. Had all the data

been available, another year's data could have been included in the analysis with four additional divisions and their corresponding stores.

Data Collection

A major limitation of the study is that data were not collected at the store level of analysis. The reason for this, as discussed in Chapter 3, was because of the fear that employees would have been reluctant to respond candidly knowing that they possibly could have been identified. It was feared that with the takeover, the response rate would have been lower than it was if employees had been asked to reveal their store numbers. Particularly within the districts (as compared to the central office [32 percent] and credit centers [25 percent]), the response rate was very low (12 percent). By requesting data at the store level, the response would have most likely only been worse.

IMPLICATIONS

Research

The implications of the study for future research refer mainly to methodological issues. First, the validity of the ethical climate typology needs to be examined further by investigating different types of organizations in similar and different settings from those used in Victor and Cullen's studies and the present research. In Victor and Cullen's initial study, managers from a trucking firm, a faculty sample, and both a military sample and a sample of managers enrolled in MBA programs were used. The ethical climates that emerged from these groups were nearly an exact replication in Victor and Cullen's follow-up study. In the follow-up study, groups from a telephone company, manufacturing plant, small printing company, and a savings and loan were used. All of these organizations constitute the extent of the different types of organizations and organizational settings that have been examined within the context of ethical climates to date. Future sample sites should include similar organizations as well as those principally involved in service (e.g., restaurants, hos-

pitals, etc.), not-for-profit, and public sector activities. Additional studies in these types of organizations would help to confirm or disconfirm the ethical climate typology and to determine whether other types of climates, in addition to the service ethical climate, can be identified. Using more of the same and different types of organizations would also allow for further examination of Victor and Cullen's hypothesis concerning the relationship between Ouchi's transaction-cost typology and ethical climates. The present research is the only study to have used a market form of governance. Given the lack of support for the predicted relationships for the organizational units with a market form of governance as well as those with a bureaucratic form, it is important to test this hypothesis within other organizations representing all four types of transaction forms. This is particularly true in light of the fact that one organization (with three distinct units) was used in the present research rather than three separate organizations.

Secondly, different measures of behavior and different types of unethical behaviors should be examined in relation to types of ethical climates. In this study, unethical behaviors of lying, failing to follow orders, being an accomplice to a crime, and stealing were examined using the WSQ. Additional behaviors for future examination, which have also been in previous research, include susceptibility to making kickback payments (Hegarty & Sims, 1979); ethical dilemmas consisting of conflict of interest, coercion and control, personal integrity, and paternalism (Fritzsche & Becker, 1984); cheating (Grimm, Kohlberg, & White, 1968); and, sexual harassment (Trevino & Youngblood, 1990). The WSQ could also be validated against the measures of some of these behaviors. Different measures of firm performance could be obtained and correlated with the types of climates. For example, instead of using profitability data, productivity measures of both group and individual performance could be used.

The present research was a cross-sectional survey. Future studies could use a mixture of qualitative and quantitative methods in order to tap the behavior and climate constructs. For example, Siehl and Martin (1988) have suggested a hybrid methodology whereby in-depth interviews are combined with questionnaires to tap the constructs of interest. Such a design would entail designing interview

questions that are relevant to each of the ethical climates and ethical behaviors. Consistent with climate research, the interviewer would ask the subjects to report what they observe rather than their feelings about what occurs (Schneider & Reichers, 1983). Based on the responses, the ECQ could be revised, if necessary, to reflect the information provided by the interviewees concerning organizational ethical practices and procedures. This process would allow for obtaining questionnaire items that are more relevant to specific organizations or organizational subunits for the purpose of being able to better assess ethical climate. This process could also be helpful in ascertaining the types of ethical behaviors that are more prevalent within the particular organization as well as the potentiality of finding out firsthand from subjects the extent to which they have witnessed or engaged in unethical behavior. Although social desirability bias would still be likely to occur, the interview method could reduce its effects through interviewer probing (Nederhof, 1985; Randall & Fernandes, 1990).

Furthermore, the survey in the present study tapped the subjects' climate perceptions for only one point in time. Longitudinal studies would have the benefit of assessing changes in the climate perceptions of employees at different points in time. The effect on ethical climate and behavior could be assessed as new policies and practices are introduced to work groups. A longitudinal design could also be used to trace the dissemination of ethical policies and codes through and across different work groups. For example, Hegarty and Sims (1979) found in a laboratory study that ethical behavior increased when there was an organizational ethics policy. This phenomenon could be examined in a field setting by using different organizations where an ethics policy is introduced in some (treatment groups) and not in others (control groups). The dissemination of the policy could be traced through time to determine if a change in ethical climate and behavior occurs and, if so, how quickly and for how long. The extent to which an ethics policy penetrates from top to bottom levels of the organization could also be examined. An experiment of this type would also lend some insight into the etiology of climates and culture, the nature of their sustenance, and their strength.

Another important research implication revolves around the failure to identify ethical climates at the district level of analysis in the present study. The lack of findings at the district level raises awareness, from a research perspective, that choosing the appropriate level for aggregation is absolutely critical for obtaining meaningful results. Why were ethical climates not found at the district level? The answer to this question is especially interesting because management believed that the district represented the company for its employees. Management felt that the district managers were so influential in setting policies and maintained such a "presence" within their respective districts that the district and not the stores would be the appropriate level of aggregation. Moreover, management felt that sufficient interaction occurred between employees in stores within each district to create similar perceptions of ethical policies and practices. Yet, the results of WABA at the district level and the application of Joyce and Slocum's (1984) criteria for establishing a climate were quite convincing in showing that the district was not the appropriate level of analysis.

Several explanations could be offered to explain why ethical climates were not identified at the district level. Of course, one could reason that the lack of district level findings were simply a statistical artifact. It could be that the district is in fact the appropriate level of aggregation but the statistical techniques used were not sensitive enough to detect between group differences or the climates which were examined were not the particular ones prevalent in the districts. While this explanation is possible, it is certainly not probable. First, the statistical techniques -- WABA -- go beyond the traditional analysis of variance methods used in previous research to detect statistically significant differences. By considering the components of the total correlation to detect practical significance, the methodology makes it more difficult to attribute differences in climate to groups unless they in fact are due to group differences. As to whether the "correct" climates were examined, it seems as though they were. The factor structures for the ethical climates were undeniably "clean" and unambiguous. Moreover, except for one factor, they were almost an exact replication of Victor and Cullen's (1988) factor structure. Thus it seems unlikely that the constructs examined were inappropriate.

A more plausible explanation is that management was simply wrong in its belief that the district was central to all store employees. It is possible that less interaction occurs between the stores and their district managers than was believed to be occurring. The store could therefore be the level where the policies and practices of the work group are most salient. Since each store has a manager who hires, schedules, evaluates, and even terminates employees, it is possible that for employees the store, not the district, represents the organization.

Given that the supervisors have considerable influence on employees, the employees and supervisors within a store are likely to share perceptions of the climate as well as behave similarly when faced with ethical dilemmas. Schneider and Reichers (1983) have used symbolic interactionism to offer an explanation for existence of different ethical climates within different organizational sub-units. Their perspective seems appropriate for understanding more fully why different stores within a district might have different ethical climates.

Symbolic interactionism is a theoretical perspective emphasizing how people create meaning through an on-going social interactive process of interpreting, defining, and evaluating the world through symbols. This perspective was originated by George Herbert Mead (1934), who integrated the works of William James, Charles Horton Cooley, James Mark Baldwin, and John Dewey (Turner, 1974). Central to Mead's perspective is the idea that human beings have the capacity for thought which is shaped by social interaction (Ritzer, 1988). Because of language, the mind evolves through a social process which enables humans to assign meaning to, interpret, and evaluate objects. Since this is a social process, the meanings are derived from, and arise out of, interaction with other people. These objects can be the self, another person, a set of standards, physical gestures, etc. People have various dispositions to act based on the meanings the objects have for them in particular situations. Thus, the situation from which the social interaction arises, and the objects contained in the situation, serve as a general frame of reference for assessing the consequences of specific behavior. In determining the specific behavior to engage in, the individual "imaginatively rehearses" lines of action toward others and selects those behaviors that facilitate cooperation and

adjustment (Ritzer, 1988). Therefore, it is this social process in a group that gives meaning to the rules, policies, and practices of the group. As Schneider and Reichers (1983) contend:

Since meanings arise out of social interactions with others, and because members of the same work group are more likely to interact with each other than with members of other groups, different groups in the organization will generate different climates or meanings regarding events, practices, and procedures that may be constant throughout the organization. So, for example, individuals at one particular level in the hierarchy (assistant managers) may attach a different meaning to a new directive from top management, than do the subordinates of these managers.

Symbolic interactionism, put in the context of the stores, would suggest that each set of store employees define through their interactions (verbal and nonverbal) with each other what is acceptable and unacceptable behavior. Each store therefore, gives meaning to the written policies of the organization, store-specific and organizational events, and implicitly sets store-specific policies based on the interactions occurring between the employees. To illustrate, consider a hypothetical multiple-unit sales organization that has a policy prohibiting any of its retail stores from having only one employee in the store at a time. This policy was initiated as a precaution against a possible theft. In one store (store A) there had never been a theft in its 22 year history. In store A employees would often leave one person in the store (e.g., to go for lunch). Leaving one person in store A was considered common practice because the employees felt they had no reason to believe that anything deleterious would happen because of having only one employee in the store. The employees' feeling was that, if a theft had not happened in the past 22 years, then why should the employees of store A expect something to happen now. On the other hand, in another store (store B), the organizational policy was strictly followed; never was one person left to run the store alone. This store had had a theft in its history. This "event" was often shared between employees who had witnessed the theft and those new to the organization. According to symbolic interactionism, employees of store B had defined the organizational policy much differently from employees in store A because of the impact of the object (i.e., theft) that had been introduced to the work group and shared with every store employee. Thus, for each store (i.e., group of people who interact regularly) meanings are given to policies and events that dictate how workers perceive the climate and what is acceptable and unacceptable behavior.

Schneider and Reichers (1983) suggest that this approach to understanding why different climates exist within the same organization could be used by observing the socialization of newcomers to see how they change their perceptions of the climate and behavior as they become indoctrinated into the work group. The effect of an ethics policy, as mentioned earlier, could be also examined with newcomers. In organizations where an ethics policy was being implemented, the newcomers perceptions of the ethical climate could be assessed and compared to those of newcomers in organizations without an ethics policy. In work groups with new supervisors, the influence of the supervisor could be examined by gauging the climate before and after the supervisors' arrival. If by chance there are work groups that have a significant change in membership, the changes in the climate could be observed.

Still at issue in the present research is the fact that although climate was not found to exist at the district level, there is no guarantee that it may exist at the lower, store level. Also, what about management's perception of a strong interaction between the stores, and the dominant role of district managers in creating ethical climates? Were they completely wrong? Probably not. It is likely that the interaction between stores occurred between the managers of the stores and the district managers rather than between the district managers and sales employees. Therefore, the level of interaction was probably such that there also existed a supervisory ethical climate as well as a store ethical climate. The supervisory ethical climate was most likely formed from the perceptions of the policies and practices perceived by the managers of each of the stores as dictated by the district managers. As each manager perceptually filtered what was handed down by the district manager, the subordinates within each store formed an ethical climate based on their perceptions of the policies and practices set forth by their managers. In this sense, the managers at each level of the organization became the "linking pin" for the dissemination of the organizational policies and practices (Likert, 1961).

According to Likert, supervisors are the important links in the organization because each supervisory level is expected to disseminate top management's organizational policies to subordinates.

As the policies are handed down from supervisor to subordinate (from the highest to lowest levels) the policies are reinterpreted and thereby "watered down" at each level. This watering down process would mean subordinates at lower levels of the organization would have received a different version of the policy than people at higher levels. It follows then that the perceptions of the policies at each level would be different depending upon the extent to which the interpretations were different at each level.

Coupled with symbolic interactionism, viewing supervisors as linking pins makes for a stronger argument that at the district level the district managers would constitute the appropriate group for aggregation. This would occur because all of the district managers report to a senior level executive. The policies from top management therefore are passed down to the district managers from their supervisor, the senior level executive. There is also a high degree of interaction between the district managers. For example, the research team attended a regularly held meeting of the district managers. There was much interaction between the managers and evidence which suggested that they share information on a frequent basis when not meeting with the group. Thus it seems likely that the ethical climate at the district level would be among the district managers. On the other hand, district managers likely pass down the policies of the organization to their immediate subordinates, the managers of each of the stores in their districts. The policy at this level would most likely be slightly different from the interpretation handed down to the district managers by their supervisor because of the filtering or watering down process and because of how the district managers had given new meaning to the policy based on their interactions among themselves. All of the store managers in each district would reinterpret the policy based on their interactions with each other. The store managers would therefore constitute another level of climate perceptions. In turn, the store managers would then share the policy with subordinates which would be reinterpreted and given new meaning based on the interactions within the particular store. Thus, the idea of supervisors serving as linking pins (Likert, 1961) in organizations seems to be particularly useful in understanding how policies and practices are passed down from the top of the organization to the lower levels resulting in one set of perceptions at one level and another set of perceptions at a dif-

ferent level. In other words, together with symbolic interactionism, the idea of supervisors as linking pins would help to explain why ethical climate was not found at the district level (as examined in the present research) and why climates may also be different for each store.

Future research, therefore, should consider not just the level of analysis of a particular work group but also multiple levels of analysis whereby each subordinate group could have different climate perceptions. If this had been done in the present research, it very well may have been found that supervisors at each level had distinct ethical climates.

Yet, another alternative explanation arises for not finding climate differences between districts. Maybe there are no ethical climates in the organization, just perceptions of individuals. This alternative suggests that even employees within the stores are inappropriate for aggregation. James and Jones (1979) would refer to this phenomenon as a psychological climate rather than a collective climate. Within the stores psychological climates are theoretically possible. For example, it is conceivable that in a store where employees are not cohesive and interact very infrequently among themselves and with their supervisor, employees may not share many perceptions concerning the practices and policies of the organization. However, given the evidence concerning the influence of supervisors on subordinates, the high level of interaction between store employees, and the evidence showing between-store differences in profits, this alternative seems to be extremely weak.

Practice

The results of this research provide some implications for managers and practitioners. The influence of supervisors and importance of the appropriate level of aggregation is important for how managers work to shape and manage their ethical climates and the behavior within work groups.

It has been fairly clearly established that supervisors influence the behavior of their employees. Thus, it becomes important to be sure that managers and supervisors are exemplary in their ethical

deployment. This means that the organization has the added responsibility of selecting managers who are ethical and share the ethical values and beliefs of the organization. However, selection would be only a first step. An important second step would be to provide new managers with training in ethics. Such training would include an introduction to the organization's ethical philosophy, values, and beliefs as well as insight into some of the ethical dilemmas which may occur in the organization and how they might be resolved. Knowledge of the different types of ethical climates may also be useful so that managers know which climates to try to sustain and which to try to avoid. In addition, managers need to know that the policies and procedures they implicitly and explicitly set and enforce will also play a role in how employees perceive the ethical climate and determine what is considered right and wrong in the company.

Another practical implication relates to be the appropriate level of aggregation. This research has emphasized the importance of examining the climate perceptions at the appropriate level. Since ethical climates were not found at the level where it was believed to exist, management should try to understand where within their organizations their attention should be most closely focused. At each supervisory level managers need to have a full understanding of the ethical values and beliefs generated from the top of the organization so that each subordinate group can be appropriately linked to the ethical stance of the organization. In the event of a breakdown in appropriate ethical behavior, managers would know where within the organization more instruction or other changes would need to be made by periodically monitoring the ethical climate of the organization at different levels.

An implication of utmost importance to for-profit organizations is the connection between profits and ethics. While no support for a relationship was found in the present research, it is likely that a relationship does nonetheless exist. This is likely because the relationship was assessed at the district level where distinct climates were not found. However, differences in climate were found at the store level although no climate data could be related to it. The store level difference suggest that profits could be, in part, determined by the ethical climate existing within each store. Since the

stores were all geographically in the same area, one could attribute some of the profitability differences to the policies and practices within the stores (Tuleja, 1985). Therefore, it would be even more important to monitor the selection and training of managers to be sure that the climate that they foster in their subordinates is consistent with the ethical values of the organization. This is especially true in a service-oriented organization where customers are the key to profitability. To illustrate, Schneider et al. (1980) found that bank customers' perceived the same type of service climate as did the bank's employees. Since a service ethical climate was found in the present research, it is likely that the climate affects customers' perceptions of the service they receive and therefore affects the amount of money they spend within the organization. Thus, giving attention to ethics at the appropriate level of analysis may provide a beneficial financial return on the time invested.

Overall, this research has given attention to the importance of the relationship between ethical climates and ethical behavior. For both research and practice more work needs to be done in order to establish more clearly the different types of ethical climates and the behaviors that each type fosters.

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Appendix A. Nine Theoretical Ethical Climate Items

Ethical Climate Questionnaire (Victor and Cullen, 1987;88)

1. Egoism/Individual
 - a. In this company, people are mostly out for themselves.
 - b. There is no room for one's own personal morals or ethics in this company.
 - c. In this company, people protect their own interests above other considerations.
 - d. People in this company are very concerned about what is best for themselves.
2. Egoism/Local
 - a. People are expected to do anything to further the company's interests.
 - b. Work is considered sub-standard only when it hurts the company's interests.
 - c. People are concerned with the company's interests to the exclusion of all else.
 - d. Decisions here are primarily viewed in terms of contributions to profit.
3. Egoism/Cosmopolitan
 - a. The major responsibility of people in this company is to consider efficiency first.
 - b. The most efficient way is always the right way in this company.
 - c. In this company, each person is expected above all to work efficiently.
 - d. Efficient solutions to problems always are sought here.
4. Utilitarian/Individual
 - a. In this company, people look out for each other's good.
 - b. In this company, our major concern is always what is best for the other person.
 - c. What is best for each individual is a primary concern in this organization.
 - d. It is expected that each individual is cared for when making decisions here.
5. Utilitarian/Local

- a. The most important concern is the good of all the people in the company.
 - b. Our major consideration is what is best for everyone in the company.
 - c. People are very concerned about what is generally best for employees in the company.
 - d. People in this company view team spirit as important.
6. Utilitarian/Cosmopolitan
- a. It is expected that you will always do what is right for the customer and public.
 - b. People in this company have a strong sense of responsibility to the outside community.
 - c. People in this company are actively concerned about customers' and the public's interests.
 - d. The effects of decisions on the customer and the public are a primary concern in this company.
7. Deontological/Individual
- a. In this company, people are expected to follow their own personal and moral beliefs.
 - b. Each person in this company decides for themselves what is right and wrong.
 - c. The most important concern in this company is each person's own sense of right and wrong.
 - d. In this company, people are guided by their own personal ethics.
8. Deontological/Local
- a. It is very important to follow strictly the company's rules and procedures here.
 - b. Everyone is expected to stick by company rules and procedures.
 - c. Successful people in this company go by the book.
 - d. Successful people in this company strictly obey the company policies.
9. Deontological/Cosmopolitan
- a. The first consideration is whether a decision violates any law.
 - b. People are expected to comply with the law and professional standards over and above other considerations.
 - c. In this company, people are expected to strictly follow legal or professional standards.
 - d. In this company, the law or ethical code of their profession is the major consideration.

Appendix B. Ethical Climate Survey Instrument

GENERAL NATURE OF _____: We would like to ask you some questions about the general nature of _____. Please answer the following in terms of how it really is in _____. NOT how you would prefer it to be. Please be as candid as possible, remember, all your responses will remain strictly confidential.

Please indicate the degree to which each of the following statements are true or, false by checking one of the alternatives below each statement.

1. People in _____ are actively concerned about customers' and the publics' interests.

Completely False	Mostly False	Somewhat False	Somewhat True	Mostly True	Completely True
------------------	--------------	----------------	---------------	-------------	-----------------
2. People in _____ view team spirit as important.

Completely False	Mostly False	Somewhat False	Somewhat True	Mostly True	Completely True
------------------	--------------	----------------	---------------	-------------	-----------------
3. The most important concern is the good of all the people in _____.

Completely False	Mostly False	Somewhat False	Somewhat True	Mostly True	Completely True
------------------	--------------	----------------	---------------	-------------	-----------------
4. The major responsibility of people in _____ is to consider efficiency first.

Completely False	Mostly False	Somewhat False	Somewhat True	Mostly True	Completely True
------------------	--------------	----------------	---------------	-------------	-----------------
5. People in _____ have a strong sense of responsibility to the outside community.

Completely False	Mostly False	Somewhat False	Somewhat True	Mostly True	Completely True
------------------	--------------	----------------	---------------	-------------	-----------------
6. In _____, people are expected to follow their own personal and moral beliefs.

Completely False	Mostly False	Somewhat False	Somewhat True	Mostly True	Completely True
------------------	--------------	----------------	---------------	-------------	-----------------
7. Successful people in _____ strictly obey the company policies.

Completely False	Mostly False	Somewhat False	Somewhat True	Mostly True	Completely True
------------------	--------------	----------------	---------------	-------------	-----------------
8. People are expected to do anything to further _____'s interests.

Completely False	Mostly False	Somewhat False	Somewhat True	Mostly True	Completely True
------------------	--------------	----------------	---------------	-------------	-----------------
9. In _____, people look out for each other's good.

Completely False	Mostly False	Somewhat False	Somewhat True	Mostly True	Completely True
------------------	--------------	----------------	---------------	-------------	-----------------
10. There is no room for one's own personal morals or ethics in _____.

Completely False	Mostly False	Somewhat False	Somewhat True	Mostly True	Completely True
------------------	--------------	----------------	---------------	-------------	-----------------
11. It is very important to follow strictly the _____'s rules and procedures here.

Completely False	Mostly False	Somewhat False	Somewhat True	Mostly True	Completely True
------------------	--------------	----------------	---------------	-------------	-----------------
12. Work is considered sub-standard only when it hurts _____'s interests.

Completely False	Mostly False	Somewhat False	Somewhat True	Mostly True	Completely True
------------------	--------------	----------------	---------------	-------------	-----------------
13. Each person in _____ decides for themselves what is right and wrong.

Completely False	Mostly False	Somewhat False	Somewhat True	Mostly True	Completely True
------------------	--------------	----------------	---------------	-------------	-----------------
14. In _____, people protect their own interests above other considerations.

Completely False	Mostly False	Somewhat False	Somewhat True	Mostly True	Completely True
------------------	--------------	----------------	---------------	-------------	-----------------
15. The most important concern in _____ is each person's own sense of right and wrong.

Completely False	Mostly False	Somewhat False	Somewhat True	Mostly True	Completely True
------------------	--------------	----------------	---------------	-------------	-----------------
16. The first consideration is whether a decision violates any law.

Completely False	Mostly False	Somewhat False	Somewhat True	Mostly True	Completely True
------------------	--------------	----------------	---------------	-------------	-----------------
17. People are expected to comply with the law and professional standards over and above other considerations.

Completely False	Mostly False	Somewhat False	Somewhat True	Mostly True	Completely True
------------------	--------------	----------------	---------------	-------------	-----------------
18. In _____, people are mostly out for themselves.

Completely False	Mostly False	Somewhat False	Somewhat True	Mostly True	Completely True
------------------	--------------	----------------	---------------	-------------	-----------------
19. Everyone is expected to stick by _____'s rules and procedures.

Completely False	Mostly False	Somewhat False	Somewhat True	Mostly True	Completely True
------------------	--------------	----------------	---------------	-------------	-----------------
20. In _____, our major concern is always what is best for the other person.

Completely False	Mostly False	Somewhat False	Somewhat True	Mostly True	Completely True
------------------	--------------	----------------	---------------	-------------	-----------------
21. People are concerned with _____'s interests to the exclusion of all else.

Completely False	Mostly False	Somewhat False	Somewhat True	Mostly True	Completely True
------------------	--------------	----------------	---------------	-------------	-----------------
22. Successful people in _____ go by the book.

Completely False	Mostly False	Somewhat False	Somewhat True	Mostly True	Completely True
------------------	--------------	----------------	---------------	-------------	-----------------
23. The most efficient way is always the right way in _____.

Completely False	Mostly False	Somewhat False	Somewhat True	Mostly True	Completely True
------------------	--------------	----------------	---------------	-------------	-----------------

24. In _____, people are expected to strictly follow legal or professional standards.

Completely False	Mostly False	Somewhat False	Somewhat True	Mostly True	Completely True
------------------	--------------	----------------	---------------	-------------	-----------------

25. Our major consideration is what is best for everyone in _____.

Completely False	Mostly False	Somewhat False	Somewhat True	Mostly True	Completely True
------------------	--------------	----------------	---------------	-------------	-----------------

26. In _____, people are guided by their own personal ethics.

Completely False	Mostly False	Somewhat False	Somewhat True	Mostly True	Completely True
------------------	--------------	----------------	---------------	-------------	-----------------

27. In _____, the law or ethical code of their profession is the major consideration.

Completely False	Mostly False	Somewhat False	Somewhat True	Mostly True	Completely True
------------------	--------------	----------------	---------------	-------------	-----------------

28. In _____, each person is expected above all to work efficiently.

Completely False	Mostly False	Somewhat False	Somewhat True	Mostly True	Completely True
------------------	--------------	----------------	---------------	-------------	-----------------

29. It is expected that you will always do what is right for the customer and public.

Completely False	Mostly False	Somewhat False	Somewhat True	Mostly True	Completely True
------------------	--------------	----------------	---------------	-------------	-----------------

30. Decisions here are primarily viewed in terms of contributions to profit.

Completely False	Mostly False	Somewhat False	Somewhat True	Mostly True	Completely True
------------------	--------------	----------------	---------------	-------------	-----------------

31. People are very concerned about what is generally best for employees in _____.

Completely False	Mostly False	Somewhat False	Somewhat True	Mostly True	Completely True
------------------	--------------	----------------	---------------	-------------	-----------------

32. What is best for each individual is a primary concern in this organization.

Completely False	Mostly False	Somewhat False	Somewhat True	Mostly True	Completely True
------------------	--------------	----------------	---------------	-------------	-----------------

33. People in _____ are very concerned about what is best for themselves.

Completely False	Mostly False	Somewhat False	Somewhat True	Mostly True	Completely True
------------------	--------------	----------------	---------------	-------------	-----------------

34. The effects of decisions on the customer and the public are a primary concern of _____.

Completely False	Mostly False	Somewhat False	Somewhat True	Mostly True	Completely True
------------------	--------------	----------------	---------------	-------------	-----------------

35. It is expected that each individual is cared for when making decisions here.

Completely False	Mostly False	Somewhat False	Somewhat True	Mostly True	Completely True
------------------	--------------	----------------	---------------	-------------	-----------------

36. Efficient solutions to problems always are sought here.

Completely False	Mostly False	Somewhat False	Somewhat True	Mostly True	Completely True
------------------	--------------	----------------	---------------	-------------	-----------------

FEELINGS ABOUT _____: Listed below are a series of statements that represent possible feelings that you might have about the company for which you work. With respect to your own feelings about _____, please indicate the degree of your agreement or disagreement with each statement by checking one of the alternatives below each statement.

1. I am willing to put in a great deal of effort beyond that normally expected in order to help _____ be successful.

Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree
-------------------	---------------------	-------------------	----------------	------------------	----------------

2. I talk up this organization to my friends as a great company to work for.

Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree
-------------------	---------------------	-------------------	----------------	------------------	----------------

3. I find that my values and _____'s values are very similar.

Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree
-------------------	---------------------	-------------------	----------------	------------------	----------------

4. I am proud to tell others that I am part of _____.

Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree
-------------------	---------------------	-------------------	----------------	------------------	----------------

5. Generally speaking, I am very satisfied with this job.

Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree
-------------------	---------------------	-------------------	----------------	------------------	----------------

6. I am generally satisfied with the kind of work I do in this job.

Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree
-------------------	---------------------	-------------------	----------------	------------------	----------------

7. Most people on this job are very satisfied with the job.

Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree
-------------------	---------------------	-------------------	----------------	------------------	----------------

8. All in all, I am satisfied with my supervisor.

Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree
-------------------	---------------------	-------------------	----------------	------------------	----------------

9. I am satisfied with the way my supervisor handles his or her workers.

Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree
-------------------	---------------------	-------------------	----------------	------------------	----------------

10. I am satisfied with the competence of my supervisor in making decisions.

Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree
-------------------	---------------------	-------------------	----------------	------------------	----------------

BEHAVIOR IN _____: This section contains statements about behavior. Please indicate the extent to which each statement is true or false by checking one of the alternatives below each statement.

1. Nobody ever gets caught for NOT following company procedures around here.

Completely False	Mostly False	Somewhat False	Somewhat True	Mostly True	Completely True
------------------	--------------	----------------	---------------	-------------	-----------------

2. There is a strong chance that if someone does something wrong he or she will get caught.

Completely False	Mostly False	Somewhat False	Somewhat True	Mostly True	Completely True
------------------	--------------	----------------	---------------	-------------	-----------------

3. Occasionally people do NOT have time to follow company procedures (e.g., daily diamond count).

Completely False	Mostly False	Somewhat False	Somewhat True	Mostly True	Completely True
------------------	--------------	----------------	---------------	-------------	-----------------

4. When people occasionally violate a procedure or policy it does NOT hurt the company (e.g., one employee in the store).

Completely False	Mostly False	Somewhat False	Somewhat True	Mostly True	Completely True
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5. Occasionally people take hard drugs (e.g., cocaine, pcp, etc.) on the job.

Completely False	Mostly False	Somewhat False	Somewhat True	Mostly True	Completely True
------------------	--------------	----------------	---------------	-------------	-----------------

6. People occasionally take marijuana on the job around here.

Completely False	Mostly False	Somewhat False	Somewhat True	Mostly True	Completely True
------------------	--------------	----------------	---------------	-------------	-----------------

7. Occasionally, people drink alcohol on the job.

Completely False	Mostly False	Somewhat False	Somewhat True	Mostly True	Completely True
------------------	--------------	----------------	---------------	-------------	-----------------

8. People sometimes come to work under the influence of alcohol.

Completely False	Mostly False	Somewhat False	Somewhat True	Mostly True	Completely True
------------------	--------------	----------------	---------------	-------------	-----------------

9. People sometimes come to work under the influence of illegal substances (i.e., marijuana, cocaine, etc.).

Completely False	Mostly False	Somewhat False	Somewhat True	Mostly True	Completely True
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10. People learn about what is right and wrong behavior around here from their immediate supervisors (e.g., store managers).

Completely False	Mostly False	Somewhat False	Somewhat True	Mostly True	Completely True
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11. People learn about what is right and wrong behavior around here from the company orientation for new employees.

Completely False	Mostly False	Somewhat False	Somewhat True	Mostly True	Completely True
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12. People learn about what is right and wrong behavior around here from their district manager.

Completely False	Mostly False	Somewhat False	Somewhat True	Mostly True	Completely True
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13. People learn about what is right and wrong behavior around here from their co-workers rather than supervisors.

Completely False	Mostly False	Somewhat False	Somewhat True	Mostly True	Completely True
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14. People are constantly reminded of what is right and wrong behavior around here by the company.

Completely False	Mostly False	Somewhat False	Somewhat True	Mostly True	Completely True
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15. Of the following sources for learning about right and wrong in _____ listed below, rank them in order of their influence on your behavior at _____.

- immediate supervisor
- co-workers
- district manager
- orientation for new employees

Most influence ____ Second ____ Third ____ Fourth Most influence ____

16. Listed below are factors that many people believe influence ethical behavior. Rank them in order of their influence or contribution to your ethical behavior at _____.

- behavior of superiors
- behavior of co-workers
- society's moral climate
- the ethical practices of one's profession
- formal organizational policy (or lack thereof)

Most influence ____ Second ____ Third ____ Fourth ____ Fifth ____

WORK SITUATIONS: Please read Situations 1 through 4. Each situation is followed by four statements. Respond to each statement by checking yes or no below each statement.

SITUATION 1: You are an employee of Western Industries working in the assembly room where the guidance system is installed in nuclear missiles carrying multiple warheads aimed at targets in the Soviet Union (MX missiles). Some of the metals used are quite expensive but very useful for home repairs. You are considering whether you would take some of the metal out of the plant for your personal use.

1. Because I should pursue my own long-term best interests to the exclusion of the interests of all others involved, I would take some of the metal home.

Yes	No
-----	----

2. Because it would be okay with me if everyone else did the same thing, I would take some of the metal home.

Yes	No
-----	----

3. If the benefits of taking some of the metal home outweighed the costs to all concerned, I would do so.

Yes	No
-----	----

4. It would be out of character for me in this situation to take some of the metal home.

Yes	No
-----	----

SITUATION 2: As an employee of Western Industries, you know that the company is behind in its production deadlines for the MX missile. Certain employees are even working overtime in order to help the company minimize the time overrun. A friend of yours who works at another company invites you to take a four-day vacation at a mutual friend's lakefront cottage. You are considering whether you would call in sick to miss work Thursday and Friday to join your friend.

1. Because I should pursue my own long-term best interests to the exclusion of the interests of all others involved, I would call in sick.

Yes	No
-----	----

2. Because it would be okay with me if everyone else did the same thing, I would call in sick.

Yes	No
-----	----

3. If the benefits of my calling in sick outweighed the costs to all concerned, I would do so.

Yes	No
-----	----

4. It would be out of character for me in this situation to call in sick.

Yes	No
-----	----

SITUATION 3: The assembly room for the MX missile at Western Industries must be kept totally clean at all times. All persons entering the assembly room must wear masks, gloves, and a protective suit. All food and drink is strictly prohibited in the assembly room. Otherwise, tiny debris could find its way into the guidance systems being installed and cause the missiles to malfunction in the event of their launching in a nuclear war. Since you are unable to leave the assembly room, you are considering whether you would eat lunch at your post.

1. Because I should pursue my own long-term best interests to the exclusion of the interests of all others involved, I would eat my lunch in the assembly.

Yes	No
-----	----

2. Because it would be okay with me if everyone else did the same thing, I would eat my lunch in the assembly room.

Yes	No
-----	----

3. If the benefits of eating my lunch in the assembly room outweighed the costs to all concerned, I would do so.

Yes	No
-----	----

4. It would be out of character for me in this situation to eat my lunch in the assembly room.

Yes	No
-----	----

SITUATION 4: Western Industries is now so far behind in its production schedule that it is about to suffer crippling penalties from the federal government. This backup problem is largely due to the unavailability of properly inspected control mechanisms from the supplier. One way around this problem is to obtain uninspected control mechanisms from an unauthorized supplier. In fact, management has already arranged for these uninspected control mechanisms to be delivered to a post office near the plant. If these uninspected control mechanisms are installed, there is no way to know if fired missiles will hit Chicago or Moscow. You are considering whether you would install the unauthorized guidance mechanisms in order to help the company avoid the crippling penalties.

1. Because I should pursue my own long-term best interests to the exclusion of the interests of all others involved, I would install the unauthorized guidance mechanisms.

Yes	No
-----	----

2. Because it would be okay with me if everyone else did the same thing, I would install the unauthorized guidance mechanisms.

Yes	No
-----	----

3. If the benefits of my installing the unauthorized guidance mechanisms outweighed the costs to all concerned, I would do so.

Yes No

4. It would be out of character for me in this situation to install the unauthorized guidance mechanisms.

Yes No

The information requested below is for comparison purposes and will be held in strict confidence. Individual questionnaires will NOT be released to or reviewed by anyone from _____. Comparisons by broad categories provide anonymity to all respondents.

1. My amount of education is: (check one)

- less than 8th grade.
- 8th grade.
- some high school.
- high school graduate.
- some college technical school.
- college graduate.
- master's, doctorate.

2. My age is: (check one)

- under 18 years.
- between 18 and 21 years.
- between 22 and 28 years.
- between 29 and 38 years.
- between 39 and 45 years.
- between 46 and 65 years.
- over 65 years.

3. My years of service are: (check one)

- less than 1 year.
- between 1-2 years.
- between 2-3 years.
- between 3-5 years.
- between 5-10 years.
- between 10-15 years.
- over 15 years.

4. I am male/female. (circle one)

5. _____ place a check here if you no longer work at _____ and then answer 6 or 7 or 8 to indicate what your primary position used to be.

Answer question 6 OR 7 OR 8 based on your primary position. (If you are a Home Office employee "moonlighting" in a store, you should identify yourself as a Home Office employee only.)

6. I am a field (store) employee. yes/no (circle one)

If "NO", go to question 7; if "YES", continue on.

a. I am a District Manager or Regional General Manager. yes/no (circle one)

If "Yes" stop here, if "NO", continue on.

1) I am a: (check one)

- part-time or full-time sales associate.
- Store Manager, Assistant Manager, or Manager Trainee.

2) My district number is _____. (A district listing is on the next page.)

7. I am a Credit Center employee. yes/no (circle one)

If "NO", go to question number 8; if "YES", continue on)

a. I work at the ____ / _____. (circle one)

b. I am a: (check one)

- part-time employee.
- full-time non-supervisory employee.
- supervisor or manager.

8. I work at the Central Office (includes Store Planning and Corporate Sales) yes/no (circle one)

If "YES", continue on)

a. I am a: (check one)

- manager or department head.
- supervisor or assistant supervisor.
- full-time non-supervisory employee.
- part-time employee.

b. I work in: (check one)

- Personnel and Administration.
- Accounting or Treasury (includes Payroll, Accounting, etc.).
- Data Processing.
- Advertising.
- Other.

Appendix C. Ethical Climate and Behavioral Differences in Identified and Unidentified Employees

Table 58. Ethical climate differences between identified and unidentified groups

Variables	Group	n	Mean	Std. Dev.	t	p > t
Instrumental	Unidentified	118	2.69	.877	1.63	.1048
	Identified	639	2.55	.785		
Service	Unidentified	118	3.93	.913	.63	.5296
	Identified	639	3.87	.791		
Law and Code	Unidentified	118	3.82	.874	1.41	.1617
	Identified	639	3.70	.837		
Caring	Unidentified	118	2.91	.666	.65	.5168
	Identified	639	2.87	.567		
Independence	Unidentified	118	2.28	.956	.89	.3757
	Identified	639	2.37	.828		

Table 59. Ethical behavior differences between identified and unidentified groups

Variables	Group	n	Mean	Std. Dev.	t	p > t
Following orders	Unidentified	118	.026	.132	.396	.6927
	Identified	639	.031	.148		
Accomplice	Unidentified	118	.040	.164	1.00	.3168
	Identified	639	.024	.123		
Stealing	Unidentified	118	.011	.075	1.44	.1513
	Identified	639	.024	.122		
Lying	Unidentified	118	.054	.190	.285	.7758
	Identified	639	.049	.172		

Appendix D. Descriptive Statistics for Employees in Stores, Credit Centers, and Central Office

Table 60. Descriptive Statistics for Employees in Stores		
Variables	N	Mean
Tenure	525	between 2-3 years
Age	525	between 29 and 38 years
Education	525	some college/technical school
Females	349	
Males	176	
Managers	254	
Sales Associates	242	

Table 61. Descriptive Statistics for Employees in Credit Centers		
Variables	N	Mean
Tenure	50	between 2-3 years
Age	50	between 29 and 38 years
Education	50	some college/technical school
Females	39	
Males	11	
Managers	10	
Staff	38	
Western Center	18	
Eastern Center	30	

Table 62. Descriptive statistics for employees in central office

Variables	N	Mean
Tenure	64	between 3-5 years
Age	64	between 29 and 38 years
Education	64	some college/technical school
Females	47	
Males	17	
Managers	30	
Staff	34	

Appendix E. Descriptive Statistics for Store Employees by District

Table 63. Statistics for employees who did not identify their district		
Variables	N	Mean
Tenure	87	between 2-3 years
Age	87	between 29 and 38 years
Education	87	some college/technical school
Females	52	
Males	35	
Managers	29	
Sales Associates	31	

Table 64. Statistics for store employees in district 1		
Variables	N	Mean
Tenure	9	between 2-3 years
Age	9	between 39 and 45 years
Education	9	some college/technical school
Females	5	
Males	4	
Managers	2	
Sales Associates	7	

Table 65. Statistics for store employees in district 2		
Variables	N	Mean
Tenure	10	between 3-5 years
Age	10	between 29 and 38 years
Education	10	some college/technical school
Females	9	
Males	1	
Managers	5	
Sales Associates	5	

Table 66. Statistics for store employees in district 3		
Variables	N	Mean
Tenure	12	between 3-5 years
Age	12	between 22 and 28 years
Education	12	college graduate
Females	6	
Males	6	
Managers	7	
Sales Associates	5	

Table 67. Statistics for store employees in district 5		
Variables	N	Mean
Tenure	15	between 2-3 years
Age	15	between 22 and 28 years
Education	15	some college/technical school
Females	8	
Males	7	
Managers	9	
Sales Associates	6	

Table 68. Statistics for store employees in district 6		
Variables	N	Mean
Tenure	15	between 3-5 years
Age	15	between 29 and 38 years
Education	15	some college/technical school
Females	12	
Males	3	
Managers	8	
Sales Associates	7	

Table 69. Statistics for store employees in district 7		
Variables	N	Mean
Tenure	10	between 3-5 years
Age	10	between 29 and 38 years
Education	10	some college/technical school
Females	9	
Males	1	
Managers	5	
Sales Associates	5	

Table 70. Statistics for store employees in district 8		
Variables	N	Mean
Tenure	12	between 2-3 years
Age	12	between 29 and 38 years
Education	12	some college/technical school
Females	7	
Males	5	
Managers	9	
Sales Associates	3	

Table 71. Statistics for store employees in district 9

Variables	N	Mean
Tenure	9	between 3-5 years
Age	9	between 29 and 38 years
Education	9	some college/technical school
Females	6	
Males	3	
Managers	7	
Sales Associates	2	

Table 72. Statistics for store employees in district 10

Variables	N	Mean
Tenure	7	between 1-2 years
Age	7	between 22 and 28 years
Education	7	some college/technical school
Females	6	
Males	1	
Managers	2	
Sales Associates	5	

Table 73. Statistics for store employees in district 11

Variables	N	Mean
Tenure	6	between 2-3 years
Age	6	between 29 and 38 years
Education	6	college graduate
Females	5	
Males	1	
Managers	3	
Sales Associates	3	

Table 74. Statistics for store employees in district 12

Variables	N	Mean
Tenure	8	between 1-2 years
Age	8	between 22 and 28 years
Education	8	some college/technical
Females	5	
Males	3	
Managers	3	
Sales Associates	5	

Table 75. Statistics for store employees in district 13

Variables	N	Mean
Tenure	3	between 2-3 years
Age	3	between 29 and 38 years
Education	3	some college/technical
Females	2	
Males	1	
Managers	1	
Sales Associates	2	

Table 76. Statistics for store employees in district 14

Variables	N	Mean
Tenure	7	between 1-2 years
Age	7	between 22 and 28 years
Education	7	some college/technical
Females	3	
Males	4	
Managers	5	
Sales Associates	2	

Table 77. Statistics for store employees in district 15		
Variables	N	Mean
Tenure	6	between 3-5 years
Age	6	between 29 and 38 years
Education	6	some college/technical
Females	4	
Males	2	
Managers	3	
Sales Associates	3	

Table 78. Statistics for store employees in district 16		
Variables	N	Mean
Tenure	7	between 2-3 years
Age	7	between 29 and 38 years
Education	7	some college/technical
Females	3	
Males	4	
Managers	5	
Sales Associates	2	

Table 79. Statistics for store employees in district 17		
Variables	N	Mean
Tenure	6	between 2-3 years
Age	6	between 29 and 38 years
Education	6	some college/technical
Females	3	
Males	3	
Managers	3	
Sales Associates	3	

Table 80. Statistics for store employees in district 18

Variables	N	Mean
Tenure	7	between 2-3 years
Age	7	between 29 and 38 years
Education	7	some college/technical
Females	4	
Males	3	
Managers	3	
Sales Associates	4	

Table 81. Statistics for store employees in district 19

Variables	N	Mean
Tenure	3	between 1-2 years
Age	3	between 22 and 28 years
Education	3	some college/technical
Females	2	
Males	1	
Managers	1	
Sales Associates	2	

Table 82. Statistics for store employees in district 20

Variables	N	Mean
Tenure	9	between 2-3 years
Age	9	between 22 and 28 years
Education	9	some college/technical
Females	8	
Males	1	
Managers	3	
Sales Associates	6	

Table 83. Statistics for store employees in district 21		
Variables	N	Mean
Tenure	8	between 3-5 years
Age	8	between 29 and 38 years
Education	8	some college/technical
Females	4	
Males	4	
Managers	5	
Sales Associates	3	

Table 84. Statistics for store employees in district 22		
Variables	N	Mean
Tenure	12	between 2-3 years
Age	12	between 29 and 38 years
Education	12	some college/technical
Females	9	
Males	3	
Managers	7	
Sales Associates	5	

Table 85. Statistics for store employees in district 23		
Variables	N	Mean
Tenure	7	between 2-3 years
Age	7	between 22 and 28 years
Education	7	some college/technical
Females	4	
Males	3	
Managers	5	
Sales Associates	2	

Table 86. Statistics for store employees in district 24

Variables	N	Mean
Tenure	20	between 2-3 years
Age	20	between 29 and 38 years
Education	20	some college/technical
Females	13	
Males	7	
Managers	8	
Sales Associates	12	

Table 87. Statistics for store employees in district 25

Variables	N	Mean
Tenure	15	between 2-3 years
Age	15	between 29 and 38 years
Education	15	college graduate
Females	12	
Males	3	
Managers	6	
Sales Associates	9	

Table 88. Statistics for store employees in district 26

Variables	N	Mean
Tenure	20	between 3-5 years
Age	20	between 29 and 38 years
Education	20	some college/technical school
Females	14	
Males	6	
Managers	12	
Sales Associates	8	

Table 89. Statistics for store employees in district 27

Variables	N	Mean
Tenure	12	between 2-3 years
Age	12	between 29 and 38 years
Education	12	some college/technical school
Females	8	
Males	4	
Managers	9	
Sales Associates	3	

Table 90. Statistics for store employees in district 28

Variables	N	Mean
Tenure	9	between 3-5 years
Age	9	between 29 and 38 years
Education	9	some college/technical school
Females	7	
Males	2	
Managers	4	
Sales Associates	5	

Table 91. Statistics for store employees in district 29

Variables	N	Mean
Tenure	28	between 2-3 years
Age	28	between 22 and 28 years
Education	28	some college/technical school
Females	21	
Males	7	
Managers	10	
Sales Associates	18	

Table 92. Statistics for store employees in district 30

Variables	N	Mean
Tenure	12	between 2-3 years
Age	12	between 22 and 28 years
Education	12	some college/technical school
Females	10	
Males	2	
Managers	5	
Sales Associates	7	

Table 93. Statistics for store employees in district 31

Variables	N	Mean
Tenure	24	between 2-3 years
Age	24	between 29 and 38 years
Education	24	some college/technical school
Females	18	
Males	6	
Managers	11	
Sales Associates	13	

Table 94. Statistics for store employees in district 32

Variables	N	Mean
Tenure	10	between 2-3 years
Age	10	between 22 and 28 years
Education	10	some college/technical school
Females	9	
Males	1	
Managers	4	
Sales Associates	6	

Table 95. Statistics for store employees in district 33		
Variables	N	Mean
Tenure	19	between 5-10 years
Age	19	between 39 and 45 years
Education	19	some college/technical school
Females	9	
Males	10	
Managers	14	
Sales Associates	5	

Table 96. Statistics for store employees in district 34		
Variables	N	Mean
Tenure	17	between 1-2 years
Age	17	between 29 and 38 years
Education	17	some college/technical school
Females	10	
Males	7	
Managers	8	
Sales Associates	9	

Table 97. Statistics for store employees in district 35		
Variables	N	Mean
Tenure	14	between 1-2 years
Age	14	between 22 and 28 years
Education	14	some college/technical school
Females	12	
Males	2	
Managers	4	
Sales Associates	10	

Table 98. Statistics for store employees in district 36

Variables	N	Mean
Tenure	22	between 2-3 years
Age	22	between 29 and 38 years
Education	22	some college/technical school
Females	16	
Males	6	
Managers	8	
Sales Associates	14	

Table 99. Statistics for store employees in district 37

Variables	N	Mean
Tenure	9	between 3-5 years
Age	9	between 29 and 38 years
Education	9	some college/technical school
Females	7	
Males	2	
Managers	8	
Sales Associates	1	

Table 100. Statistics for store employees in district 38

Variables	N	Mean
Tenure	5	between 2-3 years
Age	5	between 22 and 28 years
Education	5	some college/technical school
Females	3	
Males	2	
Managers	3	
Sales Associates	2	

Table 101. Statistics for store employees in district 39		
Variables	N	Mean
Tenure	8	between 1-2 years
Age	8	between 29 and 38 years
Education	8	some college/technical school
Females	3	
Males	5	
Managers	8	
Sales Associates	0	

Table 102. Statistics for store employees in district 40		
Variables	N	Mean
Tenure	6	between 2-3 years
Age	6	between 29 and 38 years
Education	6	some college/technical school
Females	2	
Males	4	
Managers	4	
Sales Associates	2	

Appendix F. Summary of Within- and Between-group Regressions at the District Level of Analysis

Table 103. Summary of regression results for lying and instrumental at the district level of analysis									
Within-Group Model									
Source	df	SS	F	P > F	R-Square				
Model	5	.430757	3.34	.0057	.0394				
Error	371	9.572431							
Between-Group Model									
Source	df	SS	F	P > F	R-Square				
Model	5	.017479	.71	.6232	.1053				
Error	30	.148474							
SOURCE	Type III SS	WITHIN			BETWEEN				
		F	Partial r	Partial R ²	Type III SS	F	Partial r	Partial R ²	
Gender	.1679	6.51	-.130**	.017	.0071	1.43	-.206	.043	
Age	.0967	3.75	-.098*	.010	.0002	.05	.037	.001	
Tenure	.0050	.19	.022	.000	.0004	.08	.050	.002	
Education	.1217	4.72	.110*	.012	.0071	1.43	.206	.043	
Instrumental	.0008	.03	.009	.000	.0004	.07	.046	.002	
* p ≤ .05 ** p ≤ .01 *** p ≤ .001									

Table 104. Summary of regression results for lying and caring at the district level of analysis

Within-Group Model									
Source	df	SS	F	P > F	R-Square				
Model	5	.533607	4.18	.0010	.0488				
Error	371	9.478679							
Between-Group Model									
Source	df	SS	F	P > F	R-Square				
Model	5	.017123	.69	.6346	.1032				
Error	30	.148829							
SOURCE	WITHIN					BETWEEN			
	Type III SS	F	Partial r	Partial R ²	Type III SS	F	Partial r	Partial R ²	
Gender	.1970	7.71	-.140**	.020	.0064	1.29	-.197	.039	
Age	.0942	3.69	-.097	.009	.0003	.06	-.043	.002	
Tenure	.0032	.13	.018	.000	.0006	.11	.058	.003	
Education	.0740	2.90	.086	.007	.0085	1.71	.226	.051	
Caring	.1036	4.06	-.102*	.010	.0000	.00	-.003	.000	
* p ≤ .05 ** p ≤ .01 *** p ≤ .001									

Table 105. Summary of regression results for lying and independence at the district level of analysis

Within-Group Model									
Source	df	SS	F	P > F	R-Square				
Model	5	.430471	3.34	.0058	.0394				
Error	371	9.572690							
Between-Group Model									
Source	df	SS	F	P > F	R-Square				
Model	5	.019177	.78	.5693	.1156				
Error	30	.146776							
SOURCE	WITHIN					BETWEEN			
	Type III SS	F	Partial r	Partial R ²	Type III SS	F	Partial r	Partial R ²	
Gender	.1656	6.46	-.129**	.017	.0073	1.49	-.209	.044	
Age	.0986	3.82	-.099*	.010	.0004	.08	-.049	.002	
Tenure	.0056	.22	.024	.001	.0004	.09	.053	.003	
Education	.1216	4.71	.110*	.012	.0111	2.26	.258	.067	
Independence	.0005	.02	.007	.000	.0021	.42	.111	.012	
* p ≤ .05 ** p ≤ .01 *** p ≤ .001									

Table 106. Summary of regression results for lying and service at the district level of analysis

Within-Group Model									
Source	df	SS	F	P > F	R-Square				
Model	5	.608610	4.80	.0003	.0557				
Error	371	9.410304							
Between-Group Model									
Source	df	SS	F	P > F	R-Square				
Model	5	.038240	1.80	.1438	.2304				
Error	30	.127712							
SOURCE	WITHIN					BETWEEN			
	Type III SS	F	Partial r	Partial R ²	Type III SS	F	Partial r	Partial R ²	
Gender	.2173	8.57	-.147**	.022	.0091	2.13	-.234	.055	
Age	.0619	2.44	-.079*	.006	.0008	.18	-.068	.005	
Tenure	.0081	.32	.029	.001	.0010	.24	.078	.006	
Education	.0625	2.46	.079	.006	.0024	.57	.121	.015	
Service	.1786	7.04	-.134**	.018	.0211	4.96	-.357*	.127	
* p ≤ .05 ** p ≤ .01 *** p ≤ .001									

Table 107. Summary of regression results for lying and law and code at the district level of analysis

Within-Group Model									
Source	df	SS	F	P > F	R-Square				
Model	5	.601500	4.74	.0003	.0550				
Error	371	9.416796							
Between-Group Model									
Source	df	SS	F	P > F	R-Square				
Model	5	.025073	1.07	.3977	.1511				
Error	30	.140880							
SOURCE	WITHIN					BETWEEN			
	Type III SS	F	Partial r	Partial R ²	Type III SS	F	Partial r	Partial R ²	
Gender	.0633	8.13	.144**	.021	.0086	1.83	-.228	.050	
Age	.0624	2.46	-.079	.006	.0003	.06	.059	.004	
Tenure	.0010	.04	-.009	.000	.0000	.00	.007	.000	
Education	.0788	3.10	.089	.008	.0038	.81	.151	.023	
Law and Code	.1715	6.76	-.131**	.017	.0080	1.69	-.219	.048	
* p ≤ .05 ** p ≤ .01 *** p ≤ .001									

Table 108. Summary of regression results for stealing and instrumental at the district level of analysis

Within-Group Model									
Source	df	SS	F	P > F	R-Square				
Model	5	.058984	1.03	.4011	.0125				
Error	371	4.260750							
Between-Group Model									
Source	df	SS	F	P > F	R-Square				
Model	5	.008458	.44	.8179	.0681				
Error	30	.115665							
SOURCE	WITHIN					BETWEEN			
	Type III SS	F	Partial r	Partial R ²	Type III SS	F	Partial r	Partial R ²	
Gender	.0010	.08	-.115	.000	.0023	.60	-.137	.019	
Age	.0236	2.06	-.074	.005	.0014	.35	.105	.011	
Tenure	.0001	.01	-.004	.000	.0019	.49	-.123	.015	
Education	.0191	1.67	.067	.042	.0019	.48	.123	.015	
Instrumental	.0019	.17	.021	.000	.0030	.79	.157	.025	
* p ≤ .05 ** p ≤ .01 *** p ≤ .001									

Table 109. Summary of regression results for stealing and caring at the district level of analysis

Within-Group Model									
Source	df	SS	F	P > F	R-Square				
Model	5	.133235	2.36	.0397	.0281				
Error	371	4.193079							
Between-Group Model									
Source	df	SS	F	P > F	R-Square				
Model	5	.014946	.82	.5443	.1204				
Error	30	.109177							
SOURCE	WITHIN					BETWEEN			
	Type III SS	F	Partial r	Partial R ²	Type III SS	F	Partial r	Partial R ²	
Gender	.0038	.33	-.030	.001	.0031	.86	-.159	.025	
Age	.0230	2.03	-.073	.005	.0020	.55	.127	.016	
Tenure	.0003	.03	-.009	.000	.0031	.86	-.159	.025	
Education	.0570	.50	.036	.001	.0013	.36	.103	.011	
Caring	.0762	6.74	-.133**	.018	.0095	2.62	-.277	.077	
* p ≤ .05 ** p ≤ .01 *** p ≤ .001									

Table 110. Summary of regression results for stealing and independence at the district level of analysis

Within-Group Model									
Source	df	SS	F	P > F	R-Square				
Model	5	4.234817	1.53	.1787	.0185				
Error	371	9.572690							
Between-Group Model									
Source	df	SS	F	P > F	R-Square				
Model	5	.005787	.29	.9128	.0466				
Error	30	.118336							
SOURCE	WITHIN					BETWEEN			
	Type III SS	F	Partial r	Partial R ²	Type III SS	F	Partial r	Partial R ²	
Gender	.0012	.11	-.017	.000	.0010	.24	-.088	.008	
Age	.0176	1.54	-.064	.004	.0008	.20	.080	.006	
Tenure	.0006	.05	-.012	.000	.0011	.29	-.096	.009	
Education	.0168	1.47	.062	.004	.0048	1.21	.196	.038	
Independence	.0304	2.66	-.084	.007	.0004	.10	.055	.003	
* p ≤ .05 ** p ≤ .01 *** p ≤ .001									

Table 111. Summary of regression results for stealing and service at the district level of analysis

Within-Group Model									
Source	df	SS	F	P > F	R-Square				
Model	5	.317953	5.86	.0001	.0672				
Error	371	4.024682							
Between-Group Model									
Source	df	SS	F	P > F	R-Square				
Model	5	.048810	3.89	.0078	.3932				
Error	30	.075313							
SOURCE	WITHIN					BETWEEN			
	Type III SS	F	Partial r	Partial R ²	Type III SS	F	Partial r	Partial R ²	
Gender	.0107	.99	-.050	.002	.0023	.91	-.135	.018	
Age	.0066	.61	-.039	.002	.0002	.09	.043	.002	
Tenure	.0003	.03	.008	.000	.0005	.20	-.064	.004	
Education	.0006	.06	.012	.000	.0000	.00	.006	.000	
Service	.2609	24.05	-.245***	.060	.0434	17.29	-.591***	.350	
* p ≤ .05 ** p ≤ .01 *** p ≤ .001									

Table 112. Summary of regression results for stealing and law and code at the district level of analysis

Within-Group Model									
Source	df	SS	F	P > F	R-Square				
Model	5	.184115	3.29	.0063	.0389				
Error	371	4.146704							
Between-Group Model									
Source	df	SS	F	P > F	R-Square				
Model	5	.007155	.37	.8671	.0576				
Error	30	.116968							
SOURCE	WITHIN					BETWEEN			
	Type III SS	F	Partial r	Partial R ²	Type III SS	F	Partial r	Partial R ²	
Gender	.0050	.44	-.034	.001	.0012	.31	-.100	.010	
Age	.0107	.96	-.050	.002	.0018	.47	.121	.015	
Tenure	.0016	.14	-.019	.000	.0017	.44	-.118	.014	
Education	.0065	.58	.039	.002	.0024	.61	.138	.019	
Law and Code	.1271	11.37	-.171***	.029	.0017	.45	-.119	.014	
* p ≤ .05 ** p ≤ .01 *** p ≤ .001									

Table 113. Summary of regression results for accomplice and instrumental at the district level of analysis

Within-Group Model									
Source	df	SS	F	P > F	R-Square				
Model	5	.102283	1.89	.0957	.0226				
Error	371	4.025090							
Between-Group Model									
Source	df	SS	F	P > F	R-Square				
Model	5	.002642	.52	.7557	.0804				
Error	30	.030213							
SOURCE	WITHIN					BETWEEN			
	Type III SS	F	Partial r	Partial R ²	Type III SS	F	Partial r	Partial R ²	
Gender	.0018	.17	.021	.000	.0002	.22	-.081	.007	
Age	.0402	3.70	.099	.010	.0000	.01	-.014	.000	
Tenure	.0161	1.49	-.062	.004	.0004	.36	.105	.011	
Education	.0012	.11	.017	.000	.0006	.64	.140	.020	
Instrumental	.0481	4.43	.108*	.012	.0004	.41	.113	.013	
* p ≤ .05 ** p ≤ .01 *** p ≤ .001									

Table 114. Summary of regression results for accomplice and caring at the district level of analysis

Within-Group Model									
Source	df	SS	F	P > F	R-Square				
Model	5	.106459	1.96	.0829	.0236				
Error	371	4.021269							
Between-Group Model									
Source	df	SS	F	P > F	R-Square				
Model	5	.002476	.49	.7818	.0754				
Error	30	.030379							
SOURCE	WITHIN					BETWEEN			
	Type III SS	F	Partial r	Partial R ²	Type III SS	F	Partial r	Partial R ²	
Gender	.0005	.05	.011	.000	.0001	.14	-.065	.004	
Age	.0453	4.17	-.105*	.011	.0000	.14	-.016	.000	
Tenure	.0178	1.65	.066	.004	.0004	.36	.333	.111	
Education	.0005	.05	-.011	.000	.0008	.81	.158	.025	
Caring	.0523	4.82	-.113*	.013	.0003	.25	-.087	.008	
* p ≤ .05 ** p ≤ .01 *** p ≤ .001									

Table 115. Summary of regression results for accomplice and independence at the district level of analysis

Within-Group Model									
Source	df	SS	F	P > F	R-Square				
Model	5	.070486	1.29	.2672	.0156				
Error	371	4.124551							
Between-Group Model									
Source	df	SS	F	P > F	R-Square				
Model	5	.005711	1.26	.3057	.1738				
Error	30	.027143							
SOURCE	WITHIN					BETWEEN			
	Type III SS	F	Partial r	Partial R ²	Type III SS	F	Partial r	Partial R ²	
Gender	.0021	.19	.022	.001	.0000	.02	-.026	.001	
Age	.0395	3.61	.098	.010	.0000	.01	-.016	.000	
Tenure	.0169	1.55	-.064	.004	.0008	.88	.155	.024	
Education	.0004	.04	.010	.000	.0003	.31	.092	.008	
Independence	.0163	1.49	-.063	.004	.0035	3.85	-.326	.106	
* p ≤ .05 ** p ≤ .01 *** p ≤ .001									

Table 116. Summary of regression results for accomplice and service at the district level of analysis

Within-Group Model

Source	df	SS	F	P > F	R-Square
Model	5	.122455	2.27	.0471	.0271
Error	371	4.006689			

Between-Group Model

Source	df	SS	F	P > F	R-Square
Model	5	.003342	.68	.6424	.1017
Error	30	.029513			

SOURCE	WITHIN				BETWEEN			
	Type III SS	F	Partial r	Partial R ²	Type III SS	F	Partial r	Partial R ²
Gender	.0001	.01	.006	.000	.0000	.02	-.027	.001
Age	.0314	2.91	-.087	.008	.0000	.01	-.018	.000
Tenure	.0243	2.25	.077	.006	.0005	.50	.123	.015
Education	.0009	.08	-.015	.000	.0018	1.85	.236	.056
Service	.0683	6.32	-.129**	.017	.0011	1.14	.184	.034

* p ≤ .05
 ** p ≤ .01
 *** p ≤ .001

Table 117. Summary of regression results for accomplice and law and code at the district level of analysis

Within-Group Model

Source	df	SS	F	P > F	R-Square
Model	5	.066002	1.21	.3051	.0146
Error	371	4.058146			

Between-Group Model

Source	df	SS	F	P > F	R-Square
Model	5	.002313	.45	.8068	.0704
Error	30	.030542			

SOURCE	WITHIN				BETWEEN			
	Type III SS	F	Partial r	Partial R ²	Type III SS	F	Partial r	Partial R ²
Gender	.0014	.13	.018	.000	.0000	.04	-.037	.001
Age	.0398	3.63	.098	.010	.0001	.07	-.048	.002
Tenure	.0179	1.63	-.066	.004	.0006	.63	.140	.020
Education	.0001	.01	.005	.000	.0013	1.24	.196	.039
Law and Code	.0118	1.08	-.053	.003	.0001	.09	.052	.003

* p ≤ .05
 ** p ≤ .01
 *** p ≤ .001

Table 118. Summary of regression for failing to follow orders and instrumental at the district level of analysis

Within-Group Model

Source	df	SS	F	P > F	R-Square
Model	5	.116627	1.03	.4002	.0125
Error	371	8.412314			

Between-Group Model

Source	df	SS	F	P > F	R-Square
Model	5	.016425	1.46	.2327	.1955
Error	30	.067580			

SOURCE	WITHIN				BETWEEN			
	Type III SS	F	Partial r	Partial R ²	Type III SS	F	Partial r	Partial R ²
Gender	.0027	.12	-.018	.000	.0030	1.33	-.189	.036
Age	.0116	.51	-.037	.001	.0046	2.03	-.233	.055
Tenure	.0004	.02	.007	.000	.0031	1.36	.191	.037
Education	.0490	2.16	.076	.006	.0049	2.18	.242	.059
Instrumental	.0487	2.15	.076	.006	.0012	.55	-.121	.015

* p ≤ .05
 ** p ≤ .01
 *** p ≤ .001

Table 119. Summary of regression for failing to follow orders and caring at the district level of analysis

Within-Group Model

Source	df	SS	F	P > F	R-Square
Model	5	.179538	1.59	.1605	.0192
Error	371	8.354994			

Between-Group Model

Source	df	SS	F	P > F	R-Square
Model	5	.015991	1.41	.2488	.1904
Error	30	.068014			

SOURCE	WITHIN				BETWEEN			
	Type III SS	F	Partial r	Partial R ²	Type III SS	F	Partial r	Partial R ²
Gender	.0070	.31	-.029	.001	.0061	2.67	-.269	.072
Age	.0139	.62	-.040	.002	.0033	1.47	-.199	.040
Tenure	.0005	.02	.007	.000	.0016	.72	.139	.019
Education	.0191	.85	.047	.002	.0027	1.17	.178	.032
Caring	.1116	4.95	-.114*	.013	.0008	.35	-.098	.010

* p ≤ .05
 ** p ≤ .01
 *** p ≤ .001

Table 120. Summary of regression for failing to follow orders and independence at the district level of analysis

Within-Group Model

Source	df	SS	F	P > F	R-Square
Model	5	.068981	.61	.6959	.0074
Error	371	8.455758			

Between-Group Model

Source	df	SS	F	P > F	R-Square
Model	5	.017923	1.63	.1831	.2134
Error	30	.066082			

SOURCE	WITHIN				BETWEEN			
	Type III SS	F	Partial r	Partial R ²	Type III SS	F	Partial r	Partial R ²
Gender	.0021	.09	-.016	.000	.0057	2.59	-.261	.068
Age	.0143	.63	-.041	.002	.0043	1.95	-.226	.051
Tenure	.0012	.05	.012	.000	.0020	.92	.155	.024
Education	.0450	1.98	.073	.005	.0055	2.48	.255	.065
Independence	.0010	.04	-.011	.000	.0027	1.24	.180	.033

* p ≤ .05
 ** p ≤ .01
 *** p ≤ .001

Table 121. Summary of regression for failing to follow orders and service at the district level of analysis

Within-Group Model									
Source	df	SS	F	P > F	R-Square				
Model	5	.175811	1.56	.1701	.0188				
Error	371	8.358370							
Between-Group Model									
Source	df	SS	F	P > F	R-Square				
Model	5	.015313	1.34	.2756	.1823				
Error	30	.068692							
SOURCE	WITHIN					BETWEEN			
	Type III SS	F	Partial r	Partial R ²	Type III SS	F	Partial r	Partial R ²	
Gender	.0085	.38	-.032	.001	.0054	2.36	-.254	.064	
Age	.0057	.25	-.026	.001	.0041	1.78	-.220	.048	
Tenure	.0027	.12	.018	.000	.0025	1.07	.171	.029	
Education	.0193	.86	.048	.002	.0031	1.36	.193	.037	
Service	.1078	4.79	-.112*	.013	.0001	.05	-.038	.001	
* p ≤ .05 ** p ≤ .01 *** p ≤ .001									

Table 122. Summary of regression for failing to follow orders and law and code at the district level of analysis

Within-Group Model

Source	df	SS	F	P > F	R-Square
Model	5	.254079	2.27	.0465	.0272
Error	371	8.287027			

Between-Group Model

Source	df	SS	F	P > F	R-Square
Model	5	.023098	2.28	.0723	.2750
Error	30	.060907			

SOURCE	WITHIN				BETWEEN			
	Type III SS	F	Partial r	Partial R ²	Type III SS	F	Partial r	Partial R ²
Gender	.0089	.40	-.032	.001	.0068	3.36	-.285	.081
Age	.0036	.16	-.021	.000	.0006	.31	-.086	.007
Tenure	.0002	.00	-.002	.000	.0007	.34	.091	.008
Education	.0211	.94	.050	.002	.0008	.42	.100	.010
Law and Code	.1861	8.33	-.148**	.022	.0079	3.89	-.307	.094

* p ≤ .05
 ** p ≤ .01
 *** p ≤ .001

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Education

Ph.D. Virginia Polytechnic Institute and State University (VPI & SU), Blacksburg, Virginia, Spring 1991.
Major: Management
Minor: Industrial and Organizational Psychology
Dissertation: Ethical climates and ethical behavior

M.S. VPI & SU, Blacksburg, Virginia, December, 1988.
Major: Human Resources Management and Industrial and Labor Relations
Thesis: A longitudinal examination of public recognition and employee absenteeism: An exploratory study

B.S. Averett College, Danville, Virginia, May 1981.
Major: Business Administration

A.A.S. Virginia Western Community College, Roanoke, Virginia, June 1979.
Major: Business Technology

Academic Experience

Assistant Professor, Indiana University, Graduate School of Business. Starting August 1991.
Teaching graduate and undergraduate courses in the Department of Management.

Assistant Professor, VPI & SU, Department of Management. August 1990 - May 1991.
Teaches graduate and undergraduate courses in Human Resources Management and Human Resources Planning and Development.

Adjunct Professor, Roanoke College, Department of Business and Economics. January 1990 - July 1990. Taught undergraduate courses in personnel management.

Instructor, VPI & SU, Department of Management. August 1989 - May 1990. Taught undergraduate courses in personnel administration.

Research Assistant, VPI & SU, State Productivity and Absenteeism Study and the Barringer Center. July 1986 - July 1989. Involved in research and data collection.

Graduate Assistant, VPI & SU, Department of Management. September 1985 - July 1986.
Created manuals for the faculty to use in student academic and career advising. Developed an instructor orientation program by designing a seminar and devising an orientation manual for instructors and lecturers.

Professional Experience

Employee Relations Intern, Dow Chemical U.S.A., Midland, Michigan. June 1987 - August 1987. Designed an employee training program for corporate headquarters clerical personnel and developed a supervisor coaching manual for supervisors in the Michigan Division.

Division Manager and Buyer, Leggett, Inc., Bluefield, West Virginia. June 1981 - September 1985. Managed a 2.1 million dollar division. Responsibilities included budgeting, purchasing, merchandising, and employee development. Surpassed sales goals for three consecutive years.

Manager, Wimbush Janitorial Service, Martinsville, Virginia. June 1975 - May 1981. Instrumental in the creation and development of the service-oriented business. Financed 100% of undergraduate education while working full-time in this position.

Honorary Achievements

The Jack Hoover Award, 1991. The highest honor the students and faculty of the Department of Management, Virginia Tech can bestow upon a doctoral student-instructor for exemplary teaching in the classroom as well as a desire to help students.

Outstanding Young Men of America for 1985.

C.L. Davenport Award for General Excellence, 1981. The highest honor Averett College bestows upon a student for exemplary excellence in leadership, scholarship, and character.

Most Outstanding Business Student Award, 1981, Averett College.

Who's Who Among Students in American Universities and Colleges, 1981.

Averett Leadership Society, 1981, Averett College.

Cougar Spirit Award, 1981, Averett College.

Man of the Year, 1979, Axton, Virginia.

West Virginia Jaycees State Speak-up Champion for 1985.

The Ed Gilger Award, 1984, West Virginia Jaycees.

Jaycee of the Year, 1983-84, Princeton Jaycees.

Papers and Presentations

Scott, K. Dow, Wimbush, James C. "Teacher absenteeism in secondary education." Educational Administration Quarterly, In press.

Wimbush, James C., & Shepard, Jon M. (1991) "Ethical climates and ethical behavior: An agenda for a neglected area of research." Accepted for presentation at the National Academy of Management Meetings 1991, Miami, Florida.

Scott, K. Dow, & Wimbush, James C. "A multivariate analysis of teacher absenteeism in secondary schools." Southern Management Association Proceedings (1988).

Wimbush, James C., & Scott, K. Dow. "An examination of the relationship between employee recognition and absenteeism." Southern Management Association Proceedings (1989).

Executive Programs

"Corporate Culture," The Management Institute, Roanoke College, Spring 1990 and Spring 1991.

"Leadership," The Management Institute, Roanoke College, Spring 1991.

Professional Affiliations

Academy of Management

Southern Management Association

Industrial Relations Research Association

University Service

University Communications Network Committee. Appointed by the President of the University.

The R.B. Pamplin College of Business Multicultural Diversity Committee. Appointed by the Dean of the College.

Community Service

Board of Directors, Princeton-Mercer County Chamber of Commerce, 1984-85.

President, Princeton Jaycees, 1984-85.

Executive Advisor, Mercer County Junior Achievement, 1983-85.

Consultant, Mercer County Economic Opportunity Commission, 1982-85.

Interests

Teaching: Human Resources Management, Organizational Behavior, Compensation, Staffing, Human Resources Planning and Development, and Business Ethics.

Research: Business ethics, employee recruitment, and absenteeism and turnover.

References

Available upon request.