

ADMINISTRATIVE, FACULTY, AND STAFF PERCEPTIONS OF
ORGANIZATIONAL CLIMATE AND COMMITMENT IN CHRISTIAN HIGHER
EDUCATION

by

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Abstract

Although organizational climate research has focused on nearly every aspect of education, Christian institutions of higher learning have been virtually ignored. To address this gap, this study seeks to map Christian college/university administrative, faculty, and staff perceptions of their organizational climate and their organizational commitment. Four evangelical higher education institutions with a census of 2076 employees agreed to participate in a survey that included the Personal Assessment of College Environment, a 46-item instrument comprised of four factors: institutional structure, supervisory relationship, teamwork, and student focus and the Organizational Commitment Questionnaire, an 18-item inventory that assessed three different types of commitment: affective (i.e., want to stay), continuance (i.e., need to stay), and normative (i.e., obligated to stay). Nine hundred fifty seven employees responded to the survey with useable data, representing a 46% response rate. Data was analyzed using several statistical procedures including Pearson Product Moment Correlation, stepwise multiple regression, MANOVA, and ANOVA. Interestingly, a statistically significance negative correlation was found for total climate and commitment scores on the aggregate sample. Likewise, a statistically significant negative relationship was also found for staff members who comprised nearly 67% of the total respondents, but no level of significant correlations were noted for either administrators or faculty. Administrators were found to have a more favorable view of their institutional climate than staff. Employee age, tenure, and employee classification had predictive value for organizational climate whereas only employee age and tenure predicted organizational commitment.

Dedication

This dissertation is dedicated in loving memory of my parents, Clyde M. Thomas, Sr. and Helen Ann Thomas, in grateful appreciation for their sacrifices and endless love for their children and for their devotion to our Lord Jesus Christ.

Acknowledgments

I once heard the story of a customer purchasing a painting from an artist. The customer asked how long it took to paint the portrait. “Twenty-five minutes or twenty-five years depending on your point of view,” the artist responded. “It took twenty-five minutes to fill the canvas, but twenty-five years of experience to create the image.” This dissertation is not unlike that painting. It is the by-product of specific hours spent in research and writing, but also twenty-five years of experience have preceded the completion of the project.

Much of that lifetime experience involves the influences of others. Thus, this work exists as a result of the support, encouragement, and even the direction of many people, both personal and professional. Indulge me as I acknowledge their contributions.

First, I am grateful to my doctoral dissertation committee for seeing me through this circuitous journey. First, thank you Dr. David Chapman for serving as my mentor, by stepping into the vacuum left by the departure of my previous mentor. I also appreciate the investment of my committee members, Dr. David Sarnoff and Dr. Wayland Secret. Each of your special expertise and vigilance over the dissertation process, insightful suggestions, and perceptive questions provided the catalyst for statistical integrity and clarity in thought and word.

I am also enormously grateful to the schools that allowed me access to their personnel on topics as sensitive as organizational climate and commitment. Without their willingness to be vulnerable this project would have been impossible.

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CHAPTER 1. INTRODUCTION

An institution's ability to function effectively is directly linked to the quality and excellence of its operation and its ability to be responsive to its environment (Birnbaum, 1988). Metz (1986) argued that institutional effectiveness is directly linked to the amount and accuracy of information available to those governing. One approach to procuring such information is the measurement and analysis of employee perceptions which have been shown to influence organizations (Anderson, 1982; Chiang, 2002; Gormley, 2005; Grant, 2002; Howe, 1977; Jones & James, 1979; Krakower, 1987; Litwin & Stringer, 1968; Peterson, Caffee, & White, 1991; Schneider, 1975). Such perceptions are typically captured by the construct of organizational climate.

Introduction to the Problem

The inclusiveness of organizational variables that are captured within the construct of climate makes it a primary method to understand employee interactions within their work environments. As a result, climate has become an extremely relevant concept in organizational psychology and development (Allen & Pilnick, 1973; Baker, 1992; Moos, 1974; Schnake, 1983) and has reached a place of prominence in the organizational literature. Guion (1973) considered it to be one of the most important organizational constructs to emerge in recent times.

The nature of climate is revealed in how employees feel about their work environment and the comments they make about their organization. The explanation for the existence of climates is that people cluster events into meaningful sets that serve a purpose in the work setting (Schneider & Reichers, 1983). It has been operationalized in terms of individual member perceptions of routine organizational policies and practices (e.g., Ashkenasy, Wilderom, & Peterson, 2000; Dieterly & Schneider, 1974; Jones & James, 1979; Joyce & Slocum, 1984; Litwin & Stringer, 1968; Schneider, 1990). By gathering employee perceptions, climate studies provide baseline information to assist in the design of institutional changes that ultimately promote excellence. Since climate is best described as employee perceptions of the organization, it follows that the measurement of climate will be a function of employee attitudes and values. Because climate perceptions help establish norms regarding acceptable behavior, climate studies are commonly used in industry, business, and education as a means to gather data upon which managers base planning and decision-making efforts (Baker, 1992; Katz & Kahn, 1978; Likert, 1967; Litwin & Stringer, 1968) and understand employee attitudes and behavior (Litwin & Stringer, 1968; Miner, 1988; Poole, 1985). Thus, if organizational climate is considered to be a barometer of employee attitudes, values, and behavior, then perceptions of climate can be used to gauge specific employee characteristics. One such characteristic is organizational commitment, which refers to an employee's loyalty to the organization (Allen & Meyer, 1990; Mathieu & Zajac, 1990; Meyer & Allen, 1991, 1997). The significance of organizational commitment is that it is actually one measure of organizational effectiveness (Steers, 1975) and is viewed as an instrument of

organizational climate (Virtanen, 2000). Kahn (1990) noted that perceptions of a positive climate lead to commitment, while perceptions of a negative climate lead to disengagement from one's job.

Because organizational climate was birthed in the disciplines of organizational anthropology, psychology, and sociology (James & Jones, 1974) and organizational commitment found its place in industrial organizational psychology (Chiang, 2002; Mathieu & Zajac, 1990) research endeavors failed to examine the potential relationship between these two constructs. More recent research efforts have explored the relationship between various factors of organizational climate and organizational commitment in non-profit (Grant, 2002), governmental (Landsman, 2001), industrial (Chiang, 2005; McMurray, Scott, & Pace, 2004; Tao, Takagi, Hiroto, Ishida, & Masuda, 1998; Torka, 2004), health care (Stichler, 1990; Welsch & LaVan, 1981), and educational (Gormley, 2005; Snarr & Krochalk, 1996) settings but less is understood about this relationship in Christian higher educational settings. Bullard and Taylor (1994) argue that educational institutions are unique and distinct from other organizations. They express a major difference by making the following observation: "In the case of schools, the organization's interest, employee's interest and student's interest must intertwine" (p. 58). While the educational organization is distinct from that of the business world, schools must seek to function both efficiently and effectively in order for them to remain competitive in the twenty-first century. The importance of organizational competency and proficiency that promotes employee effectiveness, as well as corporate success, imbues the educational literature (Bullard & Taylor, 1994; Campbell & Tawadey, 1990;

Welch, 2001). Since all activities are initiated and determined by the people who comprise an organization (Likert, 1967), certain motivation, apt perceptions, and necessary competencies are critical to a productive enterprise.

Therefore, organizational climate and commitment are variables that are important and applicable to institutions of higher learning. Their role in a Christian college and university environment is untapped by researchers, leaving those in governance to operate without the advantage of sound data.

Background of the Study

The study of the impact of the work environment on employee attitudes and behavior has been a complex problem for organizational researchers (Glick, 1985; Koys & DeCotiis, 1991) for almost a century. The concept of studying employees' attitudes toward work can be traced back to the early twentieth century where studies tended to focus almost exclusively on the physical aspects of work. Frederick Taylor (1911) conceptualized scientific management as a method for maximizing the efficiency of workers and thereby enabling employees to maximize wages while minimizing physical exertion. According to this method, the primary focus of the manager should be planning the execution of tasks and linking the performance to earnings.

The famous Hawthorne studies of the Western Electric Company demonstrated that non-environmental factors such as personal and social relationships impacts productivity. The Hawthorne studies were designed to determine whether certain management improvements, such as improved lighting, would improve productivity

(Hanson, 1985). When new lighting was installed that offered the same amount of illumination as the prior lighting, researchers found an increase in productivity. They concluded that “management attention” was the key contributing variable to increased production (Smither, 1988). In reflecting on the studies, Luenburg and Ornstein (1991) noted that the norms and expectations among workers had a greater impact on productivity than the work environment.

A second important concept revealed by the Hawthorne studies was the effect of social group acceptance on worker behavior. Researchers observed long-term employees asserted pressure on newer employees to decrease their level of output. This pressure was based on the perception that management would increase productivity expectations if the new employees produced at their level of potential. Thus, while individual employees could be better off financially by producing more, they forfeited personal rewards for peer acceptance, highlighting the role of social interaction and work behavior. As a result, research into job attitudes was expanded to encompass views of management, moods, and focused on supervision and the quality of work groups as major drivers of employee behavior (Locke, 1976; Schneider & Vaught, 1993).

By the 1950s, the character of American business had changed. Gordon and Howell (1959) observed that although originally confined to production management issues, the scientific approach to management had migrated to include all aspects of management activities. Instead of being taken for granted, employees and their contributions became salient variables of organizational interest. Whereas employees

were once viewed as expendable, they were now regarded to be as important as the organizational mission (Stogdill, 1965).

By the 1980s, however, the complexion of business in the United States was observed to have changed again. Employees were considered to be a disposable commodity. The shared loyalty between employers and their employees that was enjoyed over the first part of the century no longer existed. Laabs (1996) stated that the old employment contract in which lifetime employment was exchanged for employee loyalty no longer holds true in today's work environment. Consequently, Rousseau (1990, 1998, 2000, 2001, 2004) argues that today's employees are guardedly bound to their employers. Employees, especially younger workers are now more committed to their career development (Arnold & Jackson, 1997; Blau, 2000; Hall, 1996; Hall & Mirvis, 1996; Houseman, 1996; Smithson & Lewis, 2000) than to their employer.

Like any organization, educational institutions must also guard against the loss of employee commitment (Lee, 2004). Research shows that college and university personnel are concerned about their work environments. Peterson (1973) did an extensive study of community college campuses and found that employees' number one concern was work environment. It ranked second among college administrators. Similarly, Cross (1981) found that campus employees were most interested in their institutional work environment. Thus, a better understanding of organizational climate in higher education provides a basis for improving productivity, motivation, and worker satisfaction (Barr, 1988). From their perceptions, employees decide how they are valued by the organization (Fryer & Lovas, 1991) and set their commitment to the organization accordingly.

Organizational climate (Field & Abelson, 1982; Guion, 1973; Joyce & Slocum, 1982) and organizational commitment (Meyer & Allen, 1997; Steers, 1975; Whitener, 2001) have been regarded as important constructs in organizational research for many decades. Research has directly associated organizational climate with organizational commitment (Brown & Leigh, 1996; Welsch & LaVan, 1981), which has significance for employers. For instance, research has demonstrated that companies with highly committed employees experienced greater 3-year returns to shareholders than companies with low employee commitment (Watson Wyatt, 1999). In contrast, lack of commitment by employees has been shown to be behind behavioral issues related to employer high costs and poor performance (Scherwin, as cited in Welsh & LaVan, 1981). In spite of their value, however, the voices of personnel from Christian colleges and universities have been absent from the dialogue.

Statement of the Problem

Organizational commitment is one way to measure the quality of organizational climate. In spite of the numerous climate studies, there is a dearth of research that explains how organizational climate and organizational commitment constructs relate (Grant, 2002; McNabb & Sepic, 1995). More specifically, no research exists that examines these constructs in a Christian college and university environment.

To address this dearth of knowledge and to provide viable information to decision-makers within institutions of higher Christian education, the focus of this study is on Christian college and university personnel perceptions of their organizational

climate. Because existing research indicates discrepancies between perceptions of climate by employees at different levels of the organization (James & Jones, 1974; Moran & Volkwein, 1988; Putti, Aryee, & Phua, 1990), administrative, faculty, and staff perceptions will be surveyed in order to examine the institution as whole as well as possible sub-climates that might exist.

Purpose of the Study

The purpose of the present study is to map administrators, faculty, and staff perceptions of organizational climate in Christian colleges and universities and their respective commitment to their institutions through the use of effective instruments. The reason for bringing together these two streams of knowledge is to provide a basis for understanding the relationship between employee perceptions of organizational climate and its impact on employee commitment for employees in Christian higher education. Because employees' perceptions of organizational climate can influence behavioral outcomes it is reasonable to assume that within a Christian college and university setting, the organization's climate can be an important antecedent to employee behavior, and accordingly their organizational commitment.

Since the variables under investigation represent a multifaceted phenomenon they are best studied in a holistic fashion. As Pedhazur (1982) stressed, "studying each dependent variable separately...ignores the very essence and richness of the multifaceted phenomena being studied. Much of the social world is multivariate in nature, and studying it piecemeal does not hold promise of understanding it" (p. 686). Subsequently,

this research examines the relationship between individual employee's perception of organizational climate and organizational commitment using two standardized measures: the Personal Assessment of College Environment (PACE; National Initiative for Leadership and Institutional Effectiveness [NILIE], 2005) survey and the Organizational Commitment Questionnaire (OCQ; Meyer & Allen, 1991, 1997). To tap employee characteristics, a short demographic questionnaire will also be included.

Rationale

Organizations are a vital part of our daily lives (Clegg, Hardy, & Nord, 1996).

Our interconnectedness with organizations was well portrayed by Etzioni (1964) when he wrote,

We are born in organizations, educated by organizations, and most of us spend much of our lives working for organizations. We spend much of our leisure time paying, playing, and praying in organizations. Most of us will die in an organization, and when the time comes for burial, the largest organization of all—the state—must grant official permission. (p. 1)

In other words, we exist within a web of organizational systems including our family, our church, our neighborhood, our school, and our civic organizations. One specific type of organization that will occupy a great deal of our time and energy is our employer (Barnard, 1968; Brinkerhoff & Kunz, 1972).

Workplace life has become more complex than ever before. Employees may become so engrossed in their work that it becomes central to their lives. It is hard to separate individuals from their work and workplace. Just as individuals have their own unique personalities, each workplace has its own personality that distinguishes it from

others (Gilmer, 1961). The concept of organizational climate is an attempt to understand the psychology of organizations.

Educational organizations are unique from other organizations (Halpin & Croft, 1963; Miskel & Ogava, 1988). Christian schools of higher education, however, are idiosyncratic in several ways. Christian institutions are highly dependent, face extreme pressure for funding, and struggle to preserve the history, tradition, and distinctive cultures (Adrian, 1997; Dockery & Gushee, 1999). More specifically, Christian institutions of higher education differ from their secular counterparts due to their mission (Adrian, 1997), their emphasis on overt values (Savoye, 2000), their commitment to developing the whole person including spiritual development (Savoye), and their identity (Burtchaell, 1997). Unlike public higher education, many of those in governance of Christian higher education are recruited from positions in church ministry (Plotts, 1998). Thus, institutions of Christian higher education may represent a particular organizational personality and yet they have been virtually ignored in the research.

Christian institutions of higher education are significant in terms of numbers of institutions and the number of faculty and staff employed. The Council for Christian Colleges and Universities (CCCU) reports that the enrollment of their 100 member schools jumped 35% between 1990 and 1998 compared with a 5% increase at private colleges and a 4% increase at public universities (Savoye, 2000). According to the U.S. Department of Education, from 1990 to 2004 enrollment has grown 12.8% in public four year schools, whereas the enrollment in religious schools has grown 27.5% (Kwon, 2005). In fact, the colleges and universities that are member schools of the CCCU

surpassed all other colleges and universities with a 70.6% increase. In spite of the staggering growth in Christian higher education, in depth research of Christian colleges and universities has been underrepresented in the organizational climate literature. This research gap is the focus of this present study.

A study of organizational climate of higher educational institutions is timely given the measurable and observable changes they are experiencing (Vaughan, 1986). Like their non-religious counterparts, Christian colleges and universities are also in the process of adapting to rapidly changing times. If Christian colleges and universities hope to promote institutional excellence that is manifested in first-rate employee job performance and loyalty, it is important that they have appropriate data to understand their organizational climate and employee commitment.

Moreover, Christian higher education institutions face unique challenges. For Christian schools of higher education, finding financial resources, hiring quality personnel that reflect the faith orientation of the institution, and creating an appropriate climate that reflects a faith orientation is paramount.

Research Questions

The central question of this research project asks: “what is the relationship between organizational climate and commitment perceptions of Christian college and university employees?” Specifically, three research questions will be examined that seek to examine a possible relationship between organizational climate and organizational

commitment according to an employee's classification. These three questions are delineated as follows:

1. What is the relationship between administrators' perception of organizational climate and their organizational commitment?
2. What is the relationship between faculty members' perception of organizational climate and their organizational commitment?
3. What is the relationship between staff members' perception of organizational climate and their organizational commitment?

Significance of the Study

It is assumed that the data collected from this present study, its findings, and the conclusions drawn from the data would be of interest to Christian college and university boards, administrators, and human resource administrators in assisting them in several ways.

First and foremost, the findings of this study will advance the embryonic body of knowledge of Christian higher education organizational factors by assessing their climate and commitment. Such knowledge can help those in governance of a Christian institution of higher education in strategic planning. Tice (1995) found that it is of utmost importance that members of an organization "know who we are, where we are, and where we are going" (p. 17). Technological, social, and economic environments are changing so rapidly that organizations will be able to survive only if they can effectively respond to the changing demands (Harvey & Brown, 1988) and are aware of potential crises (Edgert,

1994). The extent of an organization's successful response to its environment depends upon the process through which its objectives are established and its resources managed (Hudson, 1978). Thus, climate studies serve as a basis for interpretation and, therefore, as a guide to action (Baker & Hoover, 1997; Kopelman, Brief, & Guzzo, 1990). By studying climate, administrators can strategize ways to overcome organizational problems and barriers to change by understanding what is happening at different levels within the organization.

Second, research has demonstrated that positive organizational climate is critical to the success and health of an organization (Mirvis & Kanter, 1989; Roueche & Baker, 1986). The health of the organization is determined in large part from its climate and can be measured, to some extent, through employee commitment. The significance of both climate and commitment are captured by Helford, Tindale, Dugoni, and Posavac (1995), "As suggested by Schneider (1995) and implied by Likert (1967), individuals build a cognitive map of the organization using their perceptions and infer expectancies which lead the individual toward organizationally committed behaviors" (p. 8). Subsequently, the collected data and findings from this study can be used to assist Christian college and university decision-makers in assessing their organizational health by understanding their employees' perceptions and commitment perspectives. When employee perceptions are measured, college and university procedures and policies can be shaped to enhance excellence. Therefore, information about the effect organizational climate has on the perceptions and behaviors of Christian college and university employees can enable administrators to positively influence the well-being and retention of employees.

Third, understanding the climate of Christian higher education can lead to appropriate changes to improve quality of life for its members. Sergiovanni (1987) summarized organizational climate's importance to schools when he argued that it could lead to the changing conditions that are not conducive to health. Because workplace organizational conditions are less fixed than employee personality characteristics, they are thereby more open to intervention by employers (Douglas & Bain, 1996). Baker (1992) suggests that when managers comprehend the positive and negative impacts of their practices, they can take specific actions to improve the climate and, thereby, improve performance within the organization. It is surmised that even the students can benefit from learning in a quality environment with committed faculty.

Fourth, and more specifically, organizations can benefit from creating a climate that promotes employee loyalty. One of the assumptions in the organizational commitment literature is that its antecedents are under management's influence. Thus, one key to enhancing employee retention may be the extent to which an appropriate climate can be engendered, in which employees feel a loyalty to their institution. If employees have favorable perceptions of their organizations, it follows that they will be more committed to the organization (Welsch & LaVan, 1981; Whitener, 2001) and will likely chose to remain with them longer. When organizations can retain the right caliber of employees they enhance the stability and experience level of their work force. The extent to which Christian colleges and universities can attract, keep, and motivate quality personnel will influence their capacity to fulfill their institutional missions.

Most importantly, Christian colleges and universities have mission statements that emphasize their desire to incorporate their Christian worldview into their educational goals. Likewise, the organizational climate of a Christian institution should reflect beliefs consistent with the Christian faith. Like any institution, however, Christian schools are prone to the liabilities associated with any human system. Attaining the ideal work environment requires that Christian higher education administrators become aware of their institution's inconsistencies. In doing so, they are more apt to create a climate that not only contributes to organizational stability and productivity, but one that represents the Christian faith.

Definition of Terms

According to Gay and Airasian (2000), "Constructs are abstractions that cannot be observed directly; they are invented to explain behavior" (p. 147) and must be operationally defined before they can be measured. There are several key terms that are relevant to this study. The following list describes the terms and definitions used in this present study.

Christian Higher Education. The term *Christian* has many connotations in today's society. For the purposes of this study, Christian refers to evangelicals (see below) who believe that the Bible is the inerrant and inspired Word of God. Accordingly, *Christian Higher Education* refers to colleges or universities whose mission is to provide a biblically based education.

Evangelical. The Christian schools chosen for participation in this study would describe themselves as evangelical and be liberal arts in orientation. Schools that would clearly define themselves as fundamentalist or liberal were excluded from this study. Evangelical, fundamentalist, and liberal are difficult to define because they are not religious organizations to which people or groups belong. Rather they most closely resemble religious movements that describe the doctrine, beliefs, attitudes, and behaviors of people. For the purposes of this study, the term *evangelical* can be defined as

evangelicalism today includes any Christian traditional enough to affirm the basic beliefs of the old nineteenth-century evangelical consensus. The essential evangelical beliefs include (1) the Reformation doctrine of the final authority of the Bible, (2) the real historical character of God's saving work recorded in Scriptures, (3) salvation to eternal life based upon the redemptive work of Christ, (4) the importance of evangelism and missions, and (5) the importance of a spiritually transformed life. (Marsden, 1991, pp. 4-5)

According to Marsden (1991), "Fundamentalists are a subtype of evangelicals and militancy is crucial to their outlook. Fundamentalists are not just religious conservatives, they are conservatives who are willing to take a stand and to fight" (p. 1). In contrast, those individuals who depart from the traditions of the Christian doctrine would define liberalism. Liberals are typically thought of as being morally lenient, compromising, influenced more by secular humanism, and overly preoccupied with social concerns (PRRC, 1977). In particular, liberals do not hold to the inerrancy and the authority of the Bible (Marsden, 1991). They place little importance on the virgin birth of Christ, deny the literal creation story (Robinson, 2001), and do not stress hell and the need for salvation to the extent as evangelicals (Bawer, 1997).

Organizational Climate. For the purposes of this research, an acceptable definition of climate we will use the individual organizational member as the level of analysis and embrace the view that only in aggregate can individual perceptions be considered to exhibit climate. In light of this, climate refers to a set of assumptions that can be perceived by an individual about an organization and/or its units and may be described by the practices, processes, and ways of dealing with the members of the unit and its environment. Only when these perceptions are shared with other organizational members can a climate be evident (Field & Abelson, 1982; Hellriegel & Slocum, 1974; Joyce & Slocum, 1984). In this study, organizational climate is operationalized and measured by the Personal Assessment of the College Environment (PACE; NILIE, 2005) questionnaire. The PACE is a 46-item questionnaire that is organized into four domains: institutional structure, supervisory relationship, teamwork, and student focus.

Organizational Commitment. Organizational commitment is considered to be a multidimensional construct (Morrow, 1993) that describes a force that guides a course of action toward one or more targets (Meyer & Herscovitch, 2001). Simply, it refers to a person's desire to remain with his or her organization (Morrow, 1993). For the purposes of this present study, organizational commitment will be operationalized in terms of Meyer and Allen's (1997) Three Component Model of Commitment. This model conceptualizes that organizational commitment is comprised of three different types of commitment, known as affective commitment, continuance commitment, and normative commitment (Meyer, Allen, & Smith, 1993). According to this model, affective commitment refers to an employee's emotional attachment to, identification with, and

involvement in the organization; that is, employees remain with an organization because they want to. In contrast, continuance commitment captures an employee's awareness of the perceived costs associated with leaving an organization. It pertains to the reality that employees may remain with an organization because they need to do so. In contrast, normative commitment speaks to an organizational member's feeling of obligation to continue with an organization; in other words, employees stay with an organization because they believe they should. To assess employee commitment, they developed an 18-item measure, the Organizational Commitment Questionnaire (OCQ; Meyer & Allen, 1997).

Assumptions of the Study

No research endeavor is possible without making a certain number of assumptions. This present analysis is no exception. Several assumptions are made in order to guide the study:

1. A key premise of this study is that focusing on organizational climate is a relevant research strategy that provides a deep and thorough understanding of an organization's internal operation.
2. Climate will be accurately measured by the Personal Assessment of College Environment (PACE) questionnaire (NILIE, 2005).
3. Organizational commitment will be accurately measured by the Organizational Commitment Questionnaire (OCQ; Meyer & Allen, 1997).
4. Participants will respond sincerely and honestly to all the survey items.

Delimitations and Limitations of the Study

The study of climates in organizations and organizational commitment has been difficult because each of the constructs is a complex, multilevel phenomenon (Glick, 1985). In spite of excellent advances in their conceptualizations, there are limits to the measurement of any construct.

Second, the present study will be limited to evangelical Christian colleges and universities. More fundamental and liberal institutions were not included. Thus, generalization of data beyond this population may be limited. Further, the schools that agreed to participate in this study were included based upon the willingness to participate. A random sample was not practical in obtaining permission to collect the necessary data. Since only four schools agreed to participate the findings do not necessarily represent the organizational climate and commitment of employees from a broad cross-section of evangelical Christian institutions of higher learning.

Third, in order to focus on employee perceptions and commitments student perceptions are not included in the study. Results then will be based upon the perceptions of campus personnel who responded to the survey and the findings are limited to the viability of that data.

Fourth, surveys in general, and online questionnaires, in particular, are prone to several limitations. Surveys depend on voluntary completion of the instruments. They fail to provide how much weight an employee is giving to a particular response. For example, there is no way to know if one respondent says that he or she *Agrees* with something that

the response is not as strong as another respondent who chooses *Strongly Agrees* (Foddy, 1996). With online questionnaires it is not clear who actually completed the survey. Additionally, it is uncertain as to when and under what conditions the survey was completed. The reasons that employees did not complete the survey or fully complete the survey cannot be controlled.

The study is neither longitudinal nor a time series. Therefore, the responses represent present perceptions at the time the participants were surveyed, capturing perceptions of members at the time of the study.

Since this is a non-experimental study, variables will be examined as both predictor and criterion variables. These variables will be measured at a single point in time using the survey method. Along with demographic data, the items from the two organizational measurement instruments, PACE (NILIE, 2005) and the OCQ (Meyer & Allen, 1997) were used for the study. Likert-like scales use forced choice responses, which may prevent some pertinent information from being collected.

Theoretical/Conceptual Framework

The purpose of the conceptual framework is to present and explain the main dimensions studied—factors and variables—and the presumed inter-relationships among them. It also provides an organizational framework and a means of identifying the concepts used in the study.

Personal identity, personality characteristics, and behavioral outcomes are important constructs in the study of human growth and development (Santrock, 1999). In

their desire to achieve wholeness, normal human beings are constantly seeking for a balanced integration of identity, personality, and behavior (Weiten & Lloyd, 2000). Similarly, educational institutions, being social systems, develop an organizational identity, and demonstrate personality characteristics and behavioral outcomes (Hoy & Miskel, 1983; Webb & Norton, 1999). Organizational constructs also need to be balanced and integrated to provide an environment conducive to “wholism.”

Organizational theorists draw from theories in sociology, social psychology, and cognitive psychology to create holistic theories that describe perceived patterns of psychological and social experiences of employees and organizations. Analysis of organizations was acknowledged many decades ago by Lewin (1951) when he wrote, “a social unit of a certain size has properties of its own should be considered an empirical fact” (p. 161). Lewin (1935) theorized that behavior is a function of personality and psychological environment. He suggested that the social process of a setting is part of a larger context resulting in patterns of experiences and behaviors along with employee perceptions. According to Walsh (1973), Lewin saw behavior not as a function of the objective physical properties of the world, but of a world transformed into an inner world. In praxis, Lewin (1951) stressed that individuals in organizations must be understood in the context of their interaction with their environment.

In every work environment there are dozens of organizing forces operating simultaneously upon the behavior of employees (Landy, 1989). Theorists who have examined these workplace forces eventually brought them under the nomenclature of “climate.” The birthing of the climate construct referred to a broad group of

organizational and perceptual variables that reflect individual-organizational interactions (Howe, 1977; Joyce & Slocum, 1982; Peterson et al., 1991). Since that time the concept of climate has developed a long history in the fields of industrial and organizational psychology and organizational behavior.

In the conceptual framework, the importance of organizational climate is related to the link between perceptions, attitude formation, and behavior. Organizational climate is formed by employee perceptions of formal and informal organizational features and systems. These systems, in turn, generate rewards and penalties that shape employee attitudes through behavior modification, social learning, and systemic dynamics. These countless encounters with the various aspects of organizational climate eventually shape, harden, and finally establish employee attitudes. The features of organizational climate—its systems, structures, and employee perceptions—emerge when these attitudes are measured (Alexander, 1993).

Of importance is the fact that the accumulated summary of perceptions of the organizations' work environments is descriptive, rather than evaluative in nature (Joyce & Slocum, 1984). Katz and Kahn (1978) mention that climate also reflects the internal and external struggles that make up the history of the organization, the type of people it attracts, its work processes, physical layout, modes of communication, the system's exercise of authority, its hierarchical structure, and its commitment to profit and people and the balance of this commitment. Baker (1992) suggested that, even though climate is usually understood as one concept, its operational definition may occur at three different levels of analysis within the organization.

Throughout the literature there are references of environmental characteristics and individual perception of environmental characteristics that affect commitment. According to Meyer and Allen (1997) there is a reciprocal relationship between organizational commitment and employee-organizational relationships. In their commitment framework they have noted two broad categories of commitment: attitudinal commitment and behavioral commitment. Attitudinal commitment focuses on the thought process taken by people when they are considering their relationship with an organization. Behavioral commitment relates to the process by which people become attached to some organizations and how they deal with this bond. Although most of the research has focused on attitudinal commitment, for the purposes of this study, commitment is conceptualized as an interaction between the two processes. Meyer and Allen's model also proposes three types of commitment (i.e., affective, continuance, and normative), which will be detailed in chapter two.

Organization of the Remainder of the Study

A five-chapter dissertation format was employed in this study. Chapter 1 has provided an overview of the research problem, has discussed the need for and significance of the study, and has defined the key concepts. Chapter 2 presents a review of the literature on Christian colleges/universities, organizational climate and organizational commitment. Chapter 3 describes the methodology used in this present study. The research design, description of the participants, procedures, and measures are detailed. Chapter 4 details the collection of data that was obtained through the study and

subsequent analysis of the data using appropriate statistical procedures. The findings of the study are presented in relation to the identified research questions. Finally, Chapter 5 presents the results of the study, derived conclusions, and recommendations based upon current findings.

CHAPTER 2. LITERATURE REVIEW

This chapter reviews the existing literature relevant to this present study. The objective of this literature review is to bring together existing knowledge of organizational climate and commitment and to evaluate and select reliable and valid measures that operationally define the constructs.

First, the chapter reviews the pertinent literature of Christian higher education that has provided a context for this study. Second, organizational climate literature is discussed in terms of its genesis and evolution, its construct clarity, and the research perspectives common to the literature. Finally, this chapter captures the relevant literature on organizational commitment.

Christian Colleges and Universities

Higher education has its roots in Christianity. In early civilization, community priests or holy men were deemed as the educated in society. In Renaissance Europe it was the Catholics and eventually the Protestants who would have major roles in the establishment of organized higher education. In fact, it was the Protestants who are responsible for the vast majority of Christian colleges in the United States. From the establishment of Switzerland's College of Geneva in 1559 by reformer John Calvin to the

plethora of Christian colleges and universities in America today, Christian denominations have made a dynamic impact on the existing worldwide network of higher education.

In America, education finds its origins with the first settlers of the land (Kennedy, 1966). Prior to departing to the new world, the colonists signed *The Mayflower Compact*, which succinctly expressed their desires in coming to America: “for the Glory of God and advancement of the Christian Faith and Honour of Our God and King and country” (Reed & Prevost, 1993, p. 236). In keeping with their pledge, the colonists established schools similar to the ones they had back in England. Kennedy (1966) identified these schools as “strongly religious, church controlled or influenced” (p. 13). The central guiding principle of the early establishment of Christian education was virtue (Hicks, 1999). Waterink (1954) indicates that the primary objective of Christian education was the “formation of an independent personality who serves God according to His Word” (p. 42).

Over time schools began to move away from their once foundational biblical roots. Reed and Prevost (1993) note that, “During the nineteenth century American public schools reflected their Protestant roots; it was a practical education emphasizing moral value” (p. 302). By 1837, however, morality and ethics had largely replaced all the definitely religious content in textbooks (Kennedy, 1966). It was at this time, however, that free education became a social reality in America as common schools were established in Massachusetts, and Land Grant colleges came into being under the Morrill Act in 1862. The Land Grant Act marked an expansion of education beyond elementary and secondary schools by providing greater access to higher education (Vaughan, 1995).

The growth of public institutions of higher learning and the departure of previously established Christian institutions from their biblical roots (Reed & Prevost, 1993) was unacceptable to the fundamental and evangelical base. Prompted by their dissatisfaction with the academic and social environments of the new public schools (Provenzo, 1990) many fundamentalists and evangelicals sought to re-establish biblically-based schools. Burgess (1996) writes that during the earlier decades of the twentieth century, the Protestant Christian education movement was dormant, reawakening in the 1940s. Within twenty years, the once dormant Christian school movement took hold by the middle of the 1960s producing nearly 10,000 Christian schools in the United States (Provenzo, 1990).

The creation of Christian schools of higher education has provided an alternative to public institutions of higher learning and a place for people who seek a Christian-based education. These organizations hold closely to a set of values and beliefs that set them apart from secular institutions (Savoye, 2000). The core values of Christian belief permeate their mission statements, educational philosophy, and worldview. These values are derived from a belief in the centrality of the Bible as God's revealed Word.

According to Burtchaell (1997), the religious identity of an institution rests in the top rungs of administration. Those in governance shape both the academic direction and Christian values of an institution. Research suggests that changes in administration have resulted in some institutions strengthening their commitment to a Christ-centered philosophy (Boonstra, 1988; Marsden, 1994; Plotts, 1998).

Faculty has also been accorded with being strong contributors to an institution's identity (Boonstra, 1988; Fisher, 1989; Marsden, 1994, 1997; Wagner, 1990). If there is no interest on the part of faculty to maintain a Christ-centered philosophy the curriculum is likely to move toward liberalism. The fact that faculty significantly influence an institution's values is captured by Fisher (1989) who stated, "the determining factor in the nature and effectiveness of a Christian university is the faith and commitment of the teacher" (p. 199).

The Christian atmosphere that they schools provide was a substantial attraction to parents and students seeking shelter from the secular world (Frame, 1997; Holmes, 1975; Savoye, 2000). It is the need for a distinctively Christian atmosphere that has attributed to recent enrollment surges (Frame, 1997; Savoye, 2000) and increased financial stability (Boonstra, 1988; Wagner, 1990; Wolfe & Heie, 1993).

In light of these core Christian values and beliefs, Armerding (1992) contends that any Christian community should be nurturing and protective. He advocates that Christian members should exemplify the divine-human relationship with "opportunities for very personal and private interchange" (p. 12). Armerding continues, "God has selected the functioning of the present-day church, and the interdependency of each part, to characterize His organizational theory" (p. 12). This philosophy seems to be consistent with that advanced by the Apostle Paul in First Corinthians 12. In describing what could be considered church climate, Paul states three characteristics of the church: (a) that the church is one body with many different members (v. 18), (b) that there should be no division in the body (i.e., church), and (c) that its parts should have equal concern for

each other (v. 25). The imagery is capstoned by a systemic theme in the notion that when one part of the body is affected, every other part is affected (v. 26). In other words, no part is more significant or vital to the body than another. The conceptualization of viewing the members of an organization as a body working together so that it may function properly, and at maximum efficiency, identifies vividly the interrelated concepts of a biblical view of organizational climate.

In contrast to both Armerding (1992) and the apostle Paul, some scholars (e.g., Flowers, 1992) who study religious-affiliated higher education institutions often cite several elements when describing them. Christian colleges and universities tend to: (a) have strong and participatory leadership, (b) have a firm sense of organizational momentum, and (c) have distinctive organizational cultures.

Perhaps the possible discrepancy between the core values of Christian higher education institutions and what some researchers have found may be accounted for by the dual-institutional commitments of Christian colleges and universities. According to Kennedy (1966) and Adrian (1997) the mission of Christian education has been both academic and spiritual. Since Christian education is established on the foundational principles of the Bible, such organizations ought to operate in ways that reflect those goals and values. As an organization, the members of Christian education have the unique opportunity of a shared vision based on consensus of foundational truths that members of other higher educational institutions may not enjoy. The distinctive advantage of working together with the same core values and philosophy promotes a unity of purpose and respect for individuals that should be evident in the organizational

climate. Blanchard and O'Connor (1997) indicate that members that share the values and purpose of the organization have a connectedness to the organization that produces commitment and personal satisfaction.

Organizational Climate

The origins of climate are rooted in Kurt Lewin's (1951) field theory. In hypothesizing that behavior is a function of the person and his/her environment, Lewin (1951) activated research interest in the conceptualization and measurement of organizational climate. The concept became popular in the industrial and organizational literature during the 1960s, largely due to the book of Litwin and Stringer (1968) and the two major reviews of Forehand and Gilmer (1964) and James and Jones (1974). The topic remains one not only of considerable theoretical speculation and research (Hellriegel & Slocum, 1974; Kozlowski & Doherty, 1989; La Follette & Sims, 1975; Qualls & Puto, 1989), but also disagreement (Guion, 1973; Jackofsky & Slocum, 1988; Johannesson, 1973; Poole, 1985).

Nevertheless, climate has a rich history in organizational behavior because the definition and measurement problems have generated some interesting research efforts both in the laboratory (Litwin & Stringer, 1968) and the field (Jones & James, 1979; Moran & Volkwein, 1992). Throughout the years the research has examined the construct in different ways. The specific purpose of this section of the literature review is to explore what is known about organizational climate.

The Evolution and Definition of Organizational Climate

Climate has a long history in the fields of industrial and organizational psychology and organizational behavior. Despite its widespread use, it is a contested construct with little consensus. The lack of agreement on what constitutes climate has blurred understanding. One significant reason behind the theoretical issues is that early researchers did not devote much time or energy to haggling over its definition (Reichers & Schneider, 1990), thus, utilizing divergent approaches to defining and measuring the construct (James & Jones, 1974).

The history of organizational climate can be traced to the early work of Tolman (1926) and his work with “cognitive maps.” Tolman held that individuals seek to make sense of their surroundings. Later, Lewin (1935) put forth the idea that climate represents the shared interpretations of a group, and it is these interpretations which should form the basis of understanding the environment. He also referred to social climates in boys’ groups (Lewin, Lippett, & White, 1939).

It was Argyris (1958) who first referred to climate similarly to modern conceptualizations. He defined climate as the formal organization policies, and employee needs, values, and personalities that operate in a self-perpetuating system of living complexity. However, he still uses the term climate interchangeably with the term culture.

McGregor (1960) used the term managerial climate when referring to the day-to-day behavior of the immediate superior and other significant people in management. He identified these behaviors as those that convince subordinates that they will receive a fair

break, that management has concern for subordinate welfare as well as their morale and productivity, and that management has upward influence in the organization and is competent. To McGregor, then, climate was created by managers and addressed what employees do, how they do it, how competent they are, and their ability to make things happen through upward influence in the organization.

In 1968, Litwin and Stringer focused on the concept of climate as it affects human motives for power, achievement, and affiliation. They operationalized climate through the assessment of the members' perceptions within the organization. In fact, these researchers were the first to introduce the concept of perception in their definition.

The 1970s continued to produce numerous literature reviews and refinement of the construct of climate. Due his belief that the term was ambiguous in the literature, Guion (1973) sought to clarify the definition of climate. He concluded that there is a "perceived climate" that represents the subjective assessment of climate as opposed to the objective climate that exists. Hellriegel and Slocum (1974) defined the construct as a set of attributes which can be perceived about a particular organization and/or its subsystems; thus, they included the notion of subsystems. Rather than classifying all the elements of environment as one, by looking at clusters of people who shared common perceptions the presence of multiple climates became a focus.

In the 1980s, in contrast to Hellriegel and Slocum's (1974) view, Poole (1985) argued that organizational climate addresses the entire organization rather than just sections of it. Joyce and Slocum (1982) considered the environmental variations of organizational climate and defined it as "a collective description of this environment,

most often assessed through the average perceptions of organization members” (p. 951). Their composition theory holds that individuals respond to common stimuli in an organizational climate situation. Moran and Volkwein (1988) found some evidence that organizational climate can distinguish organizations of higher learning from one another. They also found and concluded that climate is a construct that may operate to a greater degree at the intra-organizational level than the organizational level. In other words, they maintained Hellriegl and Slocum’s (1974) view that the subunits’ (e.g., departmental level) climate may be more important than the institution’s climate as a whole.

As the concept of climate evolved it came to be thought of in terms of the interaction between a particular set of environmental characteristics or attitudes and each person’s perception of them. Ashforth (1985) described climate as a “joint property of both the organization and the individual” (p. 838). In this vein, Schneider (1990) defined climate as the “incumbents’ perceptions of the events, practices, and procedures and the kinds of behaviors that get rewarded, supported, and expected in a setting” (p. 384). It is the perceptions that organization members share fundamental elements of their organization. As such, climate is phenomenological. Employees create climate by observing what happens to them and around them and then draw conclusions about their organization’s values and priorities. In turn, they set up their own priorities and subsequent behavior accordingly. These perceptions then provide employees with directions and orientation about where they should focus their energies and competencies, which, in turn, becomes a significant influence in creating a climate. Peterson and associates (1991) speak of climate as being co-created by both the organization itself and

its members: “current common patterns of important dimensions of organizational life or its members’ perceptions of and attitudes toward those dimensions” (p. 143). Moran and Volkwein (1992) point out that organizational climate is a subjective concept that results from the organization’s culture. They defined climate as:

A relatively enduring characteristic of an organization which distinguishes it from other organizations and (a) embodies members’ collective perceptions about their organization with respect to such dimensions as autonomy, trust, cohesiveness, support, recognition, innovation, and fairness; (b) produced by member interaction; (c) serves a basis for interpreting the situation; (d) reflects the prevalent norms and attitudes of the organization’s culture; and (e) acts as a source of influence for shaping behavior. (p. 20)

Baker (1992) offers the most basic definition of climate. He has conducted extensive research on educational organizational climates and holds that the climate of an organization is described when an employee answers the question, “What is it like to work here?”

From these early researchers, climate studies acquired their modern purpose which emphasizes practice and usefulness. Studying climate is seen as an instrument for organizational improvement and institutional effectiveness. In light of its practicality and value, many organizational environments have been studied including the military (Capps, 2000), business (Argyris, 1958; Cawsey, 1973; Douglas & Bain, 1996; Gunz, Gunz, & McCutcheon, 2000; Hernandez & Mercer, 1982; Hoy & Clover, 1986; Rondeau & Wager, 2002; Schneider, Parkington, & Buxton, 1980; Schneider, & Vaught, 1993), industry (Lin, 1999; Mearns, Flin, Gordon, & Fleming, 1998; Meyer, 1968; Zohar, 1980), religious denominations (Schneider & Hall, 1972), criminal justice (Griffin, 1999), elementary schools (Halpin & Croft, 1963; Murphy, 1999), secondary schools (Smith,

2000), community colleges (Baker, 1995; Evans, 1996), and large four year colleges (Barr, 1988; Borrevik, 1972; Edgert, 1994; Hughes, 1993; Johnson, Johnson, Kranch, & Zimmerman, 1999; Nusz, 1987; Pettit, 1993). Specifically, climate studies of higher education have investigated many different campus roles such as librarians (Soudek, 1983), college presidents (Evans, 1996), administrators (Pettit, 1993), chief instructional officers (Chappell, 1995), facility operators (Gratto, 2001), athletic directors (Harris, 2001; Lawrence, 2003), sport management faculty (Hall, 2003), institutional research staff (Peek, 2003), and college health occupation program directors (Palmer, 1995), but few have examined the perspectives of all campus personnel.

In sum, the construct of organizational climate has persevered many developments. In general, however, it is best thought of as the atmosphere within which an organization functions (Roueche & Baker, 1987) or the “feeling in the air” that one gets from walking around a company (Schneider, Gunnarson, & Niles-Jolly, 1994, p. 2). Like the air in a room, climate surrounds and affects everything that happens in an organization (Freiberg, 1999).

Climate Conceptual Issues

Progress in climate research has not been achieved without considerable disagreement and controversy. Most of the debate and discussion has focused on the independence of climate from other variables such as satisfaction, its convergence and divergence from the construct of organizational culture, the recognition of multiple levels of analysis for the interpretation of climate, the existence of a set of climates operating in

any one work place, the drivers behind climate perceptions, and different types and kinds of organizational climates that exist in the literature. Each of these discussions represented significant milestones in the conceptual development of climate.

The construct. Based upon the fact that the term “climate” has a Greek root that means “slope” or “inclination,” Tagiuri (1968) identified the following climate attributes: climate has a connotation of continuity; is determined by conduct, attitudes and expectations of other persons, which depend on sociological and cultural realities; is capable of being shared by several persons in the situation; is interpreted in terms of shared meaning (with some variations around consensus); and is sometimes difficult to describe in words, but may be capable of specification in terms of response. In addition, climate has potential behavioral consequences, and is an indirect determinant of behavior in that it acts upon attitudes, expectations, and states of arousal which are direct determinants of behavior. After considering these attributes, Tagiuri (1968) proposed the following definition for the concept of organizational climate:

Climate is a relative enduring quality of internal environment of an organization that (1) is experienced by its members, (2) influences their behavior, and (3) can be described in terms of values of a particular set of characteristics (or attributes) or the organization. (p. 27).

The construct of climate has also been viewed as an organization’s distinct personality (Insel & Moos, 1974a; Owens, 2004; Steers & Porter, 1975). For instance, Thomas (1976) said that, “‘personality’ is to the individual what ‘climate’ is to the organization” (p. 445). Silver (1983) captured the notion of personality when he described climate as “the atmosphere, tone, or ambiance of an organization—the sense that a place has a quality uniquely its own” (p. 204).

Climate conceptualization has been aided by the work of Poole (1985), who describes two categories of organizational climate found in the literature: typological descriptions and dimensional descriptions. The former identifies types of climate as either democratic or bureaucratic. The typological approach classifies climates as wholes that can also be rated on dimensions, but not be reduced to dimensions (Johnson, 1976; McGregor, 1960). In contrast, the dimensional approach assumes climates are best understood in terms of a set of distinct dimensions, each of which is regarded as a separate variable that is meaningful to employees on its own terms. Situational variations in climates are then reflected in different values on various dimensions (see Insel & Moos, 1974a; Jones & James, 1979; Koys & DeCotiis, 1991; Litwin & Stringer, 1968; Moos, 1974, 1982, 1994). A well developed taxonomy of organizational climate was developed out of a study by Ostroff (1993). He sought to examine the influence of both environmental and personal variables, as well as their interaction, on job outcomes. His taxonomy is comprised of 12 climate dimensions and three higher order facets (i.e., affective, cognitive, and instrumental climate perceptions) and has been regarded as one of the most comprehensive frameworks for understanding organizational climate (Carr, Schmidt, Ford, & DeShon, 2003).

The Independence of the Climate Construct

Refining the construct of climate has also been hampered by the fact that researchers have defined it in ways that have not differentiated it from other constructs. One construct that has often been confused with climate is job satisfaction, which has

been defined as “feelings or affective responses to facets of the situation” (Smith, Kendall, & Hulin, 1969). Guion (1973) and Johannesson (1973) challenged the independence of climate from job satisfaction. Both theorists considered them an alternative label for emotional responses to job satisfaction making them redundant. Subsequent research by LaFollette and Sims (1975), found that climate and work attitudes related differently to indices of job performance. Thus, they argued against the redundancy of climate and job satisfaction. Hellriegel and Slocum (1974) and Schneider (1975) both offered additional rebuttal of the Johannesson (1973) findings by arguing that the affective responses from indices of job satisfaction yielded different and potentially less consistent information than that obtained from measure of climate. From the dialogue and incorporating the most significant advances in climate research, Schneider (1975) concluded that job satisfaction was an evaluative, affective state internal to humans whereas climate was defined as descriptive human perceptions of external molar experience. Subsequently, he defined the construct: “Climate perceptions are psychologically meaningful molar descriptions that people can agree characterize a system’s practices and procedures” (p. 474).

Not only has climate been muddied by the construct of other work attitudes such as job satisfaction, but the construct of organizational culture has also clouded construct clarity (Schein, 1990). According to Barker (1994), there is evidence that the constructs of climate and culture have been frequently used synonymously. Some theorists maintain that climate is a component or subset of organizational culture (Baker, 1992; Tagiuri & Litwin, 1968). Conversely, others believe that organizational climate is a component of

the organizational culture (Cooke & Szumal, 1993; Moran & Volkwein, 1992). Even though the concept of organizational climate has generated a great deal of research, attempts to define the construct in a way that differentiates it from culture have proven problematic (Denison, 1996; Field & Aleson, 1982). Schwartz and Davis (1981) attempted to succinctly put the debate to rest when they said that whatever culture is, it is not climate.

Whereas climate has its roots in psychology, organizational culture can be credited to management consultants. Prominent in the field are Deal and Kennedy (1982) who described culture as “the way we do things around here” (p. 4). Schein (1990) defined culture as a pattern of basic assumptions that have been invented, discovered, or developed by a given group as it learns to cope with its problems of external adaptations and internal integration. These assumptions then become the correct way to perceive, think, and feel in relation to those problems. Contrasting climate and culture, Roueche and Baker (1986) differentiated the concepts by conceptualizing climate as the day-to-day perceptions of organizational members and culture as the pervasive norms and values acquired by individuals in the organization.

Another distinction between the two constructs rests in the contention that the climate of an organization consists essentially of shared perceptions, whereas the culture of an organization is made up of shared assumptions (Ashforth, 1985; Moran & Volkwein, 1992). Similarly, Burke and Litwin (1992) defined climate in terms of perceptions that individuals have of how their work unit is managed and how effectively they and their colleagues work together on a job, whereas, culture constitutes the

organization's beliefs and values. In their view, the focus of culture is on the entire organization whereas the focus of climate is on a particular work group. In this respect it is argued that culture is a more implicit concept than climate, which consists of more empirically accessible elements such as behavioral and attitudinal characteristics (Moran & Volkwein, 1992; O'Driscoll & Evans, 1988; Schneider, 1990). In this vein, Denison (1996) contended that culture had to be studied qualitatively, but climate studied quantitatively.

There are, however, as many problems associated with the concept of organizational culture as there are with organizational climate. One way to circumvent, rather than overcome the conceptual issues is to speak of employee perceptions rather than culture or climate. Naturally, employees perceptions differ within an organization as a function of both organizational and personality factors.

Three Major Perspectives on Climate

Hellriegel and Slocum's (1974) extensive review of the literature revealed three major perspectives used to define organizational climate and yielded three levels of analyses at which climate can be understood. Organizational researchers have differed with respect to whether climate perceptions are driven primarily by aspects of the organization—the organizational level (Forehand & Gilmer, 1964; Litwin & Stringer, 1968; Schneider & Bartlett, 1970), member variables such as job attitudes and role variables—the individual level (James, 1982; James & Jones, 1974; Schneider, 1975), or

member interactions with the environment—the interactional level (Ashforth, 1985; Schneider, 1990).

The earliest conceptualization of climate postulated that it was an organizational phenomenon (Litwin & Stringer, 1968; Tagiuri & Litwin, 1968). Also known as the structural view (Moran & Volkwein, 1994; Payne & Pugh, 1976), the organizational-level perspective is based on the idea that members of an organization are exposed to common structural features of an organization such as its size, degree of decision-making, technology employed, and extent to which formal rules and policies control behavior. The organizational setting is viewed as influencing the attitudes, values, and perceptions of the organizational events (Payne & Pugh, 1976), which influences such outcomes as employee satisfaction and commitment. In this vein, climate is viewed as a product of organizational characteristics such as size, structure, physical environment, leadership style, and goals. It is assumed that the interaction of these dimensions produces climate (Litwin & Stringer, 1968), which then acts upon organizational members. In fact, structural determinants are given primary consideration because they are believed to be objective in nature. Examining climate from the organizational level of analysis, Litwin and Stringer (1968) proposed that climate is comprised of six distinct factors: structure, individual responsibility, rewards, risks and risk taking, warmth and support, and tolerance and conflict. For example, in their study students were assigned to operate simulated business units under three different leadership styles. They found that students assigned to an achieving business unit had higher organizational performance than other simulated business units, while students assigned to democratic-friendly

organizations had higher levels of satisfaction than students assigned to other organizations. Likewise, Forehand and Gilmer's (1964) early review of the organizational climate literature concentrated primarily on aspects of the organization as a measure of organizational climate. Their definition consisted of three key components. First, organizational climate was a set of characteristics that could be used to differentiate organizations. Second, organizational climate remained relatively stable over time. Third, organizational climate affected worker behavior. Four organizational factors were thought to impact employee behavior: structure, systems complexity, leadership style, and goal directions. In consideration of Forehand and Gilmer's research, James and Jones (1974) believe that Forehand and Gilmer were not actually studying climate, but organizational structure and control processes. They also argued that Forehand and Gilmer's definition of organization climate was too broad to be useful as a single variable. James and Jones suggested the psychological climate be used to emphasize the fact that it is the aggregate cognitive interpretations of an organizational workforce which arise from experience in the organization and provide a representation of the meaning inherent in the organizational features, events, and processes (Kozlowski & Farr, 1988; Schneider, 1983a, 1983b). Moreover, Berger and Cummings (1979) held that the organizational perspective has failed to substantiate a consistency of measurement. They contend that the relationship between structural elements and organizational climates has not shown significant relationships to structural features. Accordingly, this lack of consistency in measurement does not support the idea that a structural or organizational explanation is a valid way to explain origins of climates.

Given the concerns about the organizational level of analysis, eventually the conceptualization of climate shifted from viewing it as a property of the organization to viewing it as an individual attribute (Berger & Cummings, 1979; James & Jones, 1974; Schneider, 1975). This perspective, known as the perceptual view (Berger & Cummings, 1979), hypothesizes that organizational analysis is to best found at the individual or psychological (James & Jones, 1974), the subunit (Powell & Butterfield, 1978), and collective (Joyce & Slocum, 1984) levels. The perceptual or individual perspective does not deny the importance of the objective work environment, the organizational level. Rather the individual/psychological/structural view suggests that the primary unit of analysis is the individual perceiver of the work environment, and that the relationship between the objective work setting and the individual responses to the environment are mediated by cognitive processes (James, 1982; James, Hater, Gent, & Bruni, 1978; James & Jones, 1974). According to this perspective, information about the environment is perceived, interpreted, and summarized by workers into molar cognitions (Schneider & Reichers, 1983). These molar cognitions then serve to direct the behavior of the individual within that environment. As such organizational climate is more accurately described as the psychological climate (James & Jones, 1974). Champions of the individual perspective argue that people come to an organization with value and belief systems already largely developed from previous work experiences and maturation. They use this belief system to evaluate whether or not the work environment is personally beneficial versus personally detrimental to the organizational well-being of the individual

(James, James, & Donna, 1990). Thus, proponents of psychological climate advocate interpretation at the individual level and reject aggregate interpretations of climate.

Studies using the individual perspective view climate as an intervening or mediating variable. In other words, climate acts as a “go between.” It links organizational processes like structure or leadership style to employee outcomes such as satisfaction (Dessler, 1976; Kopelman, Brief, & Guzzo, 1990). In a meta-analysis study, Carr, Schmidt, Ford, and DeShon (2003) found that climate’s impact on organizations outcomes is mediated by its effect on employees’ cognitive and affective states. In other words, employee attitude was a significant factor linking organizational climate to such outcomes as job satisfaction, organizational commitment, and psychological well-being.

Some researchers holding to the psychological view suggested that the climate factors described by Litwin and Stinger (1968) actually describe the way an organization treats its members. As such, organizational climate might be thought of as the personality of the organization. They noted that while workers do not need to perceive changes in their environment to respond to them and behave accordingly, the perceived environment has a greater impact on behavior than the objective environment. The adoption of this perspective had two effects on climate research. First, many factor analytic studies were conducted to focus on the dimensions of organizational climate perceived by employees (Butterfield & Farris, 1974; Payne & Pheysey, 1971; Sims & LaFollette, 1975). The second effect of this conceptualization was to stimulate further research on the impact of organizational climate perceptions on particular internal worker states such as job

satisfaction and motivation (Friedlander & Margulies, 1969; Lawler, Hall, & Oldham, 1974).

A variant of the individual perspective is the notion that distinct climates or sub-climates exist within the same organization. The case for sub-climates was initially advanced by Powell and Butterfield (1978), who argued that climate was more likely a property of separate subsystems than of the entire organization. A more exhaustive study lending support to sub-climate theory was the Jones and James (1979) study of Navy units at ship, department, and division levels. Their findings did not support interpretation of aggregate climate scores at the larger ship and department levels due to low indices of interrater agreement. A higher and more interpretable level of agreement was found to exist at the smaller division level (i.e., sub-climate level).

Research at the individual level of analysis has led to the theory of collective climates. In contrast to organizational and subunit analysis, collective climates does not require that aggregation be according to formal organizational units, divisions, or work groups (Joyce & Slocum, 1984). Groupings meeting the stringent criterion of significant discrimination between mean climate perceptions, demonstrated relationships to important organizational outcomes, and higher interrater agreement are interpretable as collective climates (Joyce & Slocum, 1984).

Although the previously mentioned studies of psychological, subunit, and collective climate have been important in the conceptualization and development of the construct, a third perspective known as the symbolic interactionist (Schneider & Reichers, 1983) approach is the most dominant and accepted way of conceptualizing

climate (Ashforth, 1985). In the interactionist perspective, climate is perceived as a product of individuals acting within a dynamic environment. It is a joint person-environment variable (Schneider & Reichers, 1983; Weick, 1979) caused by the reciprocal influence of persons and the environment in which they act. It does not posit that climate occurs within individuals or that it originates from within the characteristics of the organization. Rather, the interactive approach is regarded as occurring as a result of individuals' responding to their own situation that causes them to mutually agree, which is the nature of organization climate from this perspective. Viewing climate as the product of an interactive process between the person and the environment can be distinguished from saying that climate perceptions arise from individuals' interactions with the environment. The latter view, a component of the individual attribute approach to climate, suggests that the organizational environment is relatively static, that individuals act on the basis of their perceptions of the environment, react to events in the environment, and later their perceptions on those events. In comparison, the interactional view considers the environment to be malleable. Individuals can act to shape or "enact" (Weick, 1979) their environment by negotiating roles, redefining cognitive evaluations of events, and exerting social influence. In these studies, organizational climate is a dependent variable, assessing how various organizational factors such as leadership style seem to influence climate.

Subsequent research by Zohar (1980) and Abbey and Dickson (1983) use levels of analysis at which symbolic interaction occurs. According to this view the appropriate levels of climate analysis are on social units where individuals interact over an extended

period of time (Schneider & Reichers, 1983). In such units, communicative interactions among members will produce a uniform interpretation of the elements in a situation.

This refinement in the level of analysis debate also helps explain earlier statistics that could not be interpreted at the organizational level. It can be expected in some large organizations, for example the ships surveyed by Jones and James (1979), that many people will never have communicative interaction with one another for any extended period of time. Given this lack of interaction it is understandable that climate statistics lack meaning at the ship-wide level of analysis. The exception to this inference would be the existence of a climate which rewarded and supported individual differences (Schneider, 1975). In this situation, large standard deviations in-group item response would be expected.

From the interactionist perspective, climate is seen as episodic rather than residing at any particular level of analysis. Where previous researchers might consider climate a cross-level phenomenon (i.e., it has an impact across levels of theory), the interactionist views climate as multi-level, meaning it exists at several levels of analysis simultaneously. Climate exists at several levels simultaneously because individuals may interact with the organization at several levels, each of which may have little or no perceived connection to the other. This is not to imply that climate at each level is independent. Climate at the higher levels of organizational functioning may serve to constrain the variability in climates at lower levels. Specifically, if an organization's top management sets a relatively strong organizational climate, the climate at the lower levels would not likely deviate far from that climate. If, however, top management does not

establish a strong climate, members at the lower levels of the organization could vary more in their organizational climates.

One implication of the interactionist perspective is that interactions may be more important to understanding group and individual level climate than organizational structure, individuals' roles, or individual difference variables. While these contribute to properties, processes, and outcomes of interaction, they are not the primary determinants of an individual's climate perception. The interactionist perspective allows researchers to study how these variables drive an individual's choice of action during an interaction with the organization, and how the episode is perceived and recalled by the individuals involved.

A second implication of the interactionist perspective is that if climate does not exist as a property of the individual or a property of the organization, then it makes little sense to interpret the variance in climate ratings attributable to a particular level of analysis (i.e., variance among group means) as an indicator of reliability. In this vein, it would not be expected that raters would agree on something that does not actually exist as a single tangible or delineable entity. Individual level ratings would not represent ratings of the organization, but expectations based on multiple interactions with various levels of the organization. A single rating might represent an individual's perception of the organization as a cognitive aggregate of several different levels of organizational functioning. Specifically, variation in ratings of psychological climate may be traced to four sources: (a) main effects due to group membership at various organizational levels (e.g., staff, faculty, administrators), (b) individual level job or role factors that may

impact interactions with the environment (e.g., job, tenure, leader-member exchange), (c) individual level cognitive factors that may influence perceptions of events (e.g., job commitment), and (d) complex interactions between these variables. Cognitive job or role variables might cause differences in the way the work environment is perceived (i.e., psychological climate), but not necessarily in the way the environment is structured (i.e., organizational climate). Therefore, if individuals within a group provide similar climate ratings, it is reasonable to infer that these individuals are having similar experiences with the organization, and that the interactions they witness involving coworkers are perceived similarly. Agreement among raters, then, may reflect consistency of experience rather than objective ratings of the organization. Correspondingly, if raters are not rating the organization as a whole, consistency of experience might also differ for each aspect or dimension of organizational climate. That is, higher levels of agreement would mean that individuals within the organization are treated with and experience a great deal of consistency with respect to the measured dimension of organizational functioning. From a measurement perspective, higher level of consistency is an indicator of a strong climate for that dimension (James, 1982; Joyce & Slocum, 1984).

Climate as a Research Variable

Climate has been measured using specific sets of climate dimensions linking it to both organizational and individual outcomes. Evidence links organizational climate to such organizational processes as organizational effectiveness (Allen & Pilnick, 1973; Deal & Kennedy, 1982; Hellriegel & Slocum, 1974), leadership (Fleishman, 1953;

Likert, 1967; Mosser & Walls, 2002; Owens, 2004; Schneider & Bowen, 1985), safety (Zohar, 1980), change (Martin, Jones, & Callan, 2005; McNabb & Sepic, 1995), and management communication skills (Jablin, 1979; Penley & Hawkins, 1985; Reeding, 1972). Studies have also found relationships of climate to numerous employee behaviors, skills, and attitudes such as ethical decision-making (Dickson, Smith, Grojean, & Ehrhar, 2001; Gunz et al., 2000), integrity (Mumford & Helton, 2000), attendance (Meglino, Ravlin, & Adkins, 1989), achievement (Litwin & Stringer, 1968), creativity (Taylor, 1972), motivation (Baker, 1992; Gunnarson & Niles-Jolly, 1994; Lin, 1999; Litwin & Stringer, 1968), productivity (Day & Bedeian, 1991; Dunnette, 1973; Insel & Moos, 1974a; Johannsen, Johnson, & Stinson, 1977; Kopelman et al, 1990; Schneider & Hall, 1972), service quality (Schneider et al., 1980; Schneider, White, & Paul, 1998), customer retention (Clark, 2002; Schneider, 1973; Schneider, Parkington, & Buxton, 1980), quality of work group interaction (Franklin, 1975; Litwin & Stringer, 1968), and job satisfaction (Batlis, 1980; Cawsey, 1973; Friedlander & Margulies, 1969; Kaczka & Kirk, 1968; Lawler et al., 1974; Litwin & Stringer, 1968; Schneider, 1972; Stichler, 1990), aggression (Douglas & Martinko, 2001; Glomb, 2002), and withdrawal behaviors including leaving an organization (Batlis, 1980; Stichler, 1990)

Throughout the literature, climate has been conceived of as an independent variable (e.g., Forehand & Gilmer, 1968; Litwin & Stringer, 1968; Schneider & Bartlett, 1970). For example, Campbell, Dunnette, Lawler, and Weick (1970) used organizational climate as a cause of various work outcomes such as productivity, satisfaction, absenteeism, and turnover. In contrast, others investigators (e.g., Abbey & Dickson,

1983; Zohar, 1980) have considered climate to be a dependent variable that is the result, and the not cause of organizational structure and process. In this sense, climate may be a useful index of organizational health but not a causative factor of it. Climate has also been studied using it as a moderator variable (e.g., James, 1982; James & Jones, 1974; Joyce & Slocum, 1984; Powell & Butterfield, 1978), operationalizing it as an indirect link between two organizational outcomes. For example, studies have investigated whether organizational climate moderates job satisfaction and productivity. According to Litwin and Stringer (1968), several untested but heuristically satisfying models consider climate as one of a number of powerful moderator variables. Few researchers and models acknowledge that climate may be both an independent and dependent variable simultaneously.

The Etiology of an Organization's Climate

Schneider and Reichers (1983) have addressed the question of how specific climates emerge. They attribute the development of climates to three sources: common exposure of organizational members to the same objective structural characteristics (i.e., organizational perspective); attraction, selection, and attrition of organizational members, resulting in a homogenous set of members; and social (symbolic) interaction leading to shared understandings/meanings among members. Schneider, Goldstein, and Smith (1995) held that the development of an organization is in fact analogous to a projective personality measure. When faced with an ambiguous context and little external guidance, the prudent executive management/founders make decisions regarding process and

structure that are consistent with their values and personality. Thus, it is possible that the development of an organization might be the enactment of executive management/founder values and the manipulation or creation of an environment that maintains a consonance with individual personality. Evidently, early organizational leaders make decisions about organizational structure, policies, practices, and procedures that are congruent with and proceed from their own personal ethic and personality characteristic. Values and motives are important perceptual filters (James, 1998) through which people frame events. Initial organizational members who are chosen by top management/founders are likely to perceive the work world from similar “frames” (Bolman & Deal, 1992). Over time, the decisions by an organization’s initial leaders form the basis for the nascent organization’s climate. The organization, subsequently, develops a reputation based on the values and goals embodied in the climate. This reputation serves as the catalyst for what Schneider (1987) referred to as the Attraction-Selection-Attrition (ASA) model. According to the ASA model, people are attracted to and subsequently seek to join organizations in which they believe they would “fit” (Judge & Cable, 1997; Kristof, 1996). The natural outcome is a restricted range within organizations on a variety of personal variables, including personality assigned organizations.

There are many organizational models which incorporate the concept of climate (Barker, 1992; Bonoma & Zaltman, 1981; Burke & Litwin, 1992; DeCotiis & Summers, 1987; Glick, 1985; Hellriegel & Slocum, 1974; Insel & Moos, 1974a, 1974b; James & Jones, 1974; Johnson, 1976; Joyce & Slocum, 1984; Litwin & Stringer, 1968), but very

few models specify the exact relationship between climate and other organizational processes. Extant research, however, has found several organizational factors associated with climate.

Organizational Support

The Litwin and Stringer (1968) study found that under different climate conditions, participants used different work methods. For example, in climate conditions permitting greater freedom, administrators worked more directly with peers, whereas restrictive climates found administrators working more through the formal organizational channels. Performance tended to be more effective by workers who perceived their climate to be supportive than by those who perceived a less supportive climate. Organizational climate was used primarily as an intervening variable when the independent variables were human relations training programs, leadership styles, or managers' personality needs. The dependent variables were either job performance or job satisfaction. Of note in their study was that different leadership styles created different organizational climates which subsequently created different performance levels.

Employee Demographics

Gavin (1975) pointed out that attitudes about organizational climate are believed to be a function of the demographic characteristics of employees and characteristics of the organization and their interaction. He also stated that personal variables by biographical items were related to measures of ability, personality, and job performance

as well as being relevant to attitude difference. Newman (1975) studied 710 employees of a regional insurance company and found that attitudes were related to both organizational and personal characteristics.

Job Category

Research demonstrates that one's position in the organizational hierarchy impacts employee behavior (Dieterly & Schneider, 1974; George & Bishop, 1971; Insel & Moos, 1974a; Johnson, 2000; Moos, 1974; Schneider & Hall, 1972). Findings from these studies indicate that attitudes about organizational climate vary depending on the employee's position in the managerial hierarchy (Hall & Lawler, 1969; Owens, 2004; Porter & Lawler, 1965; Schneider & Bartlett, 1968). A particular job can influence climate perception by exposing the employee to different sets of climate relevant events, subjecting the employee to a different set of organizational policies or performance standards, or by influencing supervisor/subordinate interactions. In the context of higher education, for example, maintenance staff might experience different environmental conditions than departmental administrative assistants even though both groups are staff. The difference between those two jobs and a faculty position poses even greater discrepancies. These differences could stem from the differences in the procedures associated with successful job performance, differences in benefits and pay associated with different jobs within the organization, or differences in patterns of interactions between the individual and management associated with job status. Few studies have examined the impact of job category on climate perceptions, but extant findings show its

influence. For example, Morris, Conrad, Marcantini, Marks, and Ribisl (1999) found differences in climate perceptions between blue-collar and white-collar workers. Additionally, Mearns and colleagues (1998) found that perceptions of the work environment were related to occupation on offshore oil installation. Climate perceptions have been shown to be associated with hierarchical level with the organizational (Gonzalez-Roma, Peiro, Lloret, & Zornoza, 1999) including college and university setting (Fryer & Lovas, 1991; Moran & Volkwein, 1992).

Job Tenure

Only a few studies have examined the relationship between years of service and perceptions of organizational climate. In one study, Mearns and colleagues (1998) discovered that more senior employees may be afforded more latitude, support, respect, autonomy, and benefits thus influencing organizational climate perception.

Supervisor-Subordinate Relationship

The relationship between manager and employee may also impact perceptions of work environment. Koslowski and Doherty (1989) found that employees who reported having high quality relationships with their supervisors also reported more positive perceptions of climate than workers with poorer supervisor relationships. Frederickson (1968) found that employees who perceive their climate as rule-oriented and highly supervised were more predictable in performance than those working in a constantly changing organizational climate. He also found that in continual changing climates,

attitudes were associated with poorer organizational work performance. Michela and Burke (2000) argue that climate is substantially influenced by supervisor behaviors such as listening and providing feedback.

Job Satisfaction

The relationship between job satisfaction and perceptions of organizational climate has been well documented in the literature (Cawsey, 1973; Friedlander & Margulies, 1969; Guion, 1973; Johannesson, 1973; Joyce & Slocum, 1982; Kaczka & Kirk, 1968; LaFollette & Sims, 1975; Litwin & Stringer, 1968; Muchinsky, 1976; Schneider, 1972; Schneider & Snyder, 1975). It is likely that this relationship is one of reciprocal influence in which perceived climate affects levels of job satisfaction while job satisfaction influences perceptions of the work environment.

Measurement of Organizational Climate

In this section, the issue of climate measurement will be examined. In measuring organizational climate, researchers must consider what is actually being measured, the strength of the climate, the direction of the climate, and whether categories or dimensions are being used. Several organizational climate measures will also be discussed.

In measurement terms, organizational climate is understood in terms of objective evaluations. It characterizes properties of an organization and describes a unit rather than evaluating it. It is not an assessment of what members believe the organization should be like, but rather it is an assessment of the shared perception of what the organization

actually is like. Research demonstrates that organizational members can clearly distinguish between what is and what they would like for it to be (Luthar, DiBattista, & Gautschi, 1997). There is nothing inherently good or bad about an organization's climate, rather it assumes value only when it is related to certain outcomes (Muchinsky, 1987) that are manifested in the behavior of its members (Forehand & Gilmer, 1964) and organizational processes.

One significant factor in organizational measurement involves whose perceptions are assessed. According to Astin (1993), the preponderance of research has examined organizational climate in higher education using student perceptions. Subsequent studies, however, did address faculty's (e.g., Baker, 1995), staff's (e.g., Chappell, 1995; Lawrence, 2003), and administrators' (e.g., Pettit, 1993) perceptions. Many of these climate studies provided a description of at least one university's faculty, staff, and administration perceptions of their respective campus setting but did not address organizational commitment. The need to assess perceptions of campus personnel administrators is crucial since institutional governance creates the conditions for establishing the climate in which all personnel must work. While administrators perceive the organizational climate, they are also central in shaping it. Administrators make and communicate decisions that affect daily life within the institution. From those decisions, employees decide how they are valued by the organization (Fryer & Lovas, 1991) and determine their level of commitment to the organization accordingly.

A second measurement factor deals with what climate respondents are actually considering in their answers. While employees may be asked to evaluate their perceptions

of organizational climate, existing data indicates that what is typically measured is each employee's perception of their department's climate. For example, Mowday, Porter, and Steers (1982) found that climate was generally regarded as existing on an individual or group level as opposed to an organization-wide level. Likewise, Moran and Volkwein's (1992) research in higher educational organizations concluded that the largest proportion of variance in climate perceptions occurred at the departmental level.

A third factor in measurement deals with the strength and direction of organizational climate (Schneider, Salvaggio, & Subirats, 2002). Climate strength depends on the degree of agreement among organizational members about the climate. In other words, the strength of the climate is based upon the amount of consensus within an organization concerning the perceived climate. For a certain climate to exist there must be a particular level of agreement amongst its members. Pace and Stern (1958) operationalized climate by a two-third agreement but Guion (1973) argued that it should be 90% for the concept of climate to be invoked. Schneider and associates (2002) argued for 70% agreement. Climate direction, on the other hand, refers to whether the organizational members share a perception that a high or low level of the variable in question is appropriate.

Another measurement factor involves the way organizational climate is measured. The use of methods to measure climate, was in part, due to the way in which previous constructs had been operationally defined (Johannesson, 1973). For the most part, climate researchers have used procedures that are measured through employee perceptions using an *etic* perspective, which is objective because it imposes meaning on a set of data. In

contrast, an *emic* approach allows meaning to emerge from members of a group under study (Barley, 1983; Reichers & Schneider, 1990). Few researchers have suggested that climate be studied qualitatively. Consequently, investigators have created or adapted their own survey instruments to measure climate. Hellriegel and Slocum (1974) analyzed 31 climate studies and found that most survey instruments contained 20 to 80 items.

A review of climate research methodology finds two different approaches to measure climate: categorical and dimensional. The categorical method seeks to classify organizations into pre-existing theoretical types. Researchers seek to classify entire organizations in terms of a dominant value or normative orientation. For example, the competing values framework classifies organizations as predominantly oriented toward internal cohesiveness and human relations development, creativity and innovation, order and predictability, or competitiveness and goal attainment (Cameron & Freeman, 1991). Two examples of the categorical approach are worth noting. First, Ginsberg (1978) described three basic organizational climates that he entitled inception, post-entrepreneurial, and bureaucratic. Second, Halpin and Croft (1963) conducted research in an elementary school setting leading to six categorical types: open climates, autonomous climates, controlled climates, familiar climates, paternal climates, and closed climates

Although the categorical approach has attracted a certain amount of research (Hall, 1971), it lacks of fine discriminability, inappropriate categories, and the idea that organizational climates are multi-dimensional and should be measured on various salient albeit related, dimensions.

Incorporating the work of Lewin (1951) and Murray, Barrett, and Homburger (1938), Stern (1970) developed the Organizational Climate Index (OCI) to capture both the individual and the work environment. Murray had developed the concept of need-press and its impact on personality. He reasoned that personality was the product of interplay between individual needs and press, which was the accumulation of environmental pressures that led to changes in behavior. Stern's instrument measured six climate factors: intellectual climate, achievement standards, personal dignity, organizational effectiveness, orderliness, and impulse control. Stern developed the College Characteristics Index (CCI) which probed the organizational press as experienced by persons within an organization (Lunenburg & Ornstein, 1991).

In comparison with the categorical approach, many studies have measured climate through the use of dimensions in an attempt to fully describe the organizational climate. These models allow for the possibility of internal variations along separate, conceptually defined orientations (Quinn & Speitzer, 1991). There are a number of dimensional organizational climate measures. As initial researchers in the field, Litwin and Stringer (1966) operationalized climate by presenting six dimensions reported by member perceptions that are assessed through their Organizational Climate Questionnaire. The OCQ contains 50-items to measure nine characteristics reflecting the degree of organizational emphasis on Structure, Responsibility, Reward, Risk, Warmth and Support, Standard, Conflict, Identity, and Ethical Practice. Researchers such as Campbell and associates (1970) suggested that climate instruments are characterized by the four common dimensions of individual autonomy; degree of structure imposed on the

position; reward orientation; and consideration, warmth, and support. Schnake (1983) provided evidence that an individual's affective responses influence perceptions of organizational climate. His research led to five factors that included participation and reward orientation, structure, warmth and support, standards, and responsibility. Likert (1967) proposed six dimensions to include leadership, motivation, communication, decisions, goals, and controls. Based on the work of Insel and Moos (1974b), Moos (1974, 1986, 1994) developed the Work Environment Scale (WES), a standardized 90-item survey of social climate in the workplace. The WES is comprised according to three dimensions and ten subscales. The Relationship Dimension includes those properties pertaining to the measurement of worker involvement in their jobs and the quality of interpersonal relationships in the organization. The Relationship Dimension includes three subscales: (a) Involvement, which measures the level of employee participation in activities and decisions and organizational dedication; (b) Peer Cohesion, which assesses how employees view the friendliness and support of each other; and (c) Supervisor Support, the extent to which management is viewed as supportive of employees and encourages them to support one another. The Personal Growth dimension refers to those climate properties related to job-employee-management interactions in the organization. Personal Growth is comprised of the following three subscales: (d) Autonomy, which measures the extent that workers perceive themselves to be encouraged to be self-sufficient and make their own decisions; (e) Task Orientation, the degree to which employees believe there is an emphasis on good planning, efficiency, and getting the job done; and (f) Work Pressure, the degree to which employees believe the press of work

and urgency of time dominate their job milieus. The third dimension is referred to as the System Maintenance and System Change Dimension. This dimension contains those climate properties designed to evaluate employee perceptions of communications, control, and pressure methods used by management and is comprised of the following four subscales: (g) Clarity, the extent to which employees know what to expect in their roles and how explicitly communicates are related; (h) Control, the extent to which employees believe management use rules, regulations, and pressure to control employees; (i) Innovation, employees' perceptions of the degree of emphasis on variety, change, and new approaches advocated; and (j) Physical Comfort, the extent to which employees believe physical surroundings contribute to a pleasant and comfortable work environment.

Additional measures include the Organization Description Questionnaire (House & Rizzo, 1972), the Michigan Survey of Organizations (Taylor & Bowers, 1972), and the Business Organization Climate Index (Payne & Pheysey, 1971). A major problem with these seminal measures is their poor psychometric properties. Unfortunately, lack of consensus on the key dimensions and sub-constructs for assessing climate has slowed the accumulation of evidence about how norms, values, and perceptions affect employees.

Specific to higher educational settings, Shenkle, Snyder, and Bauer (1998) present an extensive list of campus climate measures, each accompanied by a brief description and where they can be obtained. The authors describe 59 different tools that measure specific campus life factors categorized as follows: (a) alumni; (b) current student experiences, outcomes, and satisfaction; (c) employee satisfaction and perceptions of

campus climate; (d) former or withdrawing students; (e) diversity (general); (f) substance abuse; and (g) miscellaneous. The authors also provide nine web sites that provide information on where additional campus climate measures can be obtained.

The measure chosen for this study is the Personnel Assessment of College Environment (PACE; NILIE, 2005). The PACE was developed by Baker (1992, 1995) and is now owned by the National Initiative for Leadership and Institutional Effectiveness (NILIE) for community college and university organizational climate studies. Of all the climate measures, the PACE seems to offer the greatest advantages of assessing organizational climate in higher educational settings. It has been the measure of choice in over fifty studies of organizational climate in higher education (Caison, 2005). The most recent version of the PACE, which was revised in 2005, is a 46-item survey that is organized into four domains: Institutional Structure, Supervisory Relationship, Teamwork, and Student Focus. Respondents are asked to rate the four climate domains on a five-point Likert-type scale from a low of "1" to a high of "5" plus a *not applicable* choice. The PACE model is depicted in Figure 1. According to the model, institutional leadership motivates Institutional Structure (IS), Supervisory Relationships (SR), Teamwork (TW), and Student Focus (SF) factors toward an outcome of student success and institutional effectiveness. The PACE survey was reported by Baker (1995) to have high reliability. The overall PACE instrument has demonstrated sound reliability. The PACE has shown a coefficient of internal consistency (Cronbach's Alpha) of 0.9782 (Baker & Manzo-Ramos, 1996) and 0.9760 in more recent studies (Caison, 2005; Tiu, 2001). Two separate validity factor analysis studies have demonstrated PACE's

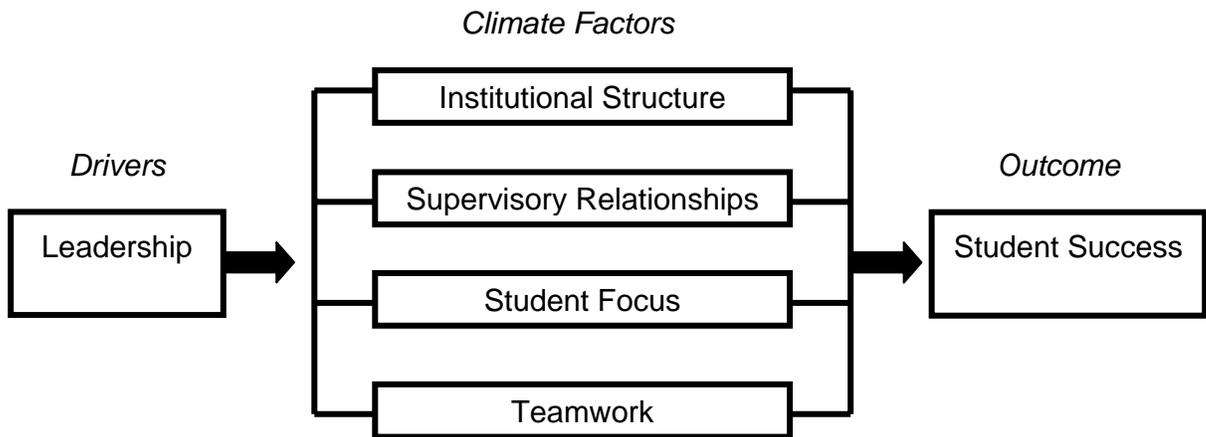


Figure 1. The Personal Assessment of College Environment model. From *Personal assessment of the college environment (PACE) survey* (p. 1), by National Initiative for Leadership and Institutional Effectiveness (2005). Raleigh, NC: North Carolina State University. Copyright 2005 by National Initiative for Leadership and Institutional Effectiveness. Used with permission.

validity (Caison, 2005; Tiu, 2001).

Organizational Commitment

Organizational commitment has been an important part of organizational studies and the focus of research in recent years because of its linkages with the quality of life in organizations. It is regarded as a salient core job attitude that governs how employees attitudinally and behaviorally approach their work (e.g., Allen & Meyer, 1990; Mowday, Steers, & Porter, 1979). Subsequently, since its introduction in the early 1950s, commitment has been widely researched (Arye & Heng, 1990) from various theoretical perspectives (Virtanen, 2000).

This section will provide an overview of the relevant extant research on employee organizational commitment. Specifically, the literature review will include a discussion of the construct of organizational commitment, the benefits and relevancy of organizational commitment, and how it has been measured in the literature.

The Construct of Commitment

In explaining the significance of organizational commitment, Morrow and McElroy (1993) believed that it is the most maturely developed of all the work commitment constructs. Yet, the literature speaks to the lack of a consensus on its definition (Meyer, Smith, & Allen, 1993; Mowday, 1998; Suliman & Isles, 2000a, 2000b, Virtanen, 2000; Zangaro, 2001). For example, as early as 1960 Becker noted the complex nature of organizational commitment. Unsurprisingly, Morrow (1983) has identified

twenty-five commitment related constructs in the organizational commitment literature. In contrast, however, Grusky (1966) suggested that it is a single construct based upon social exchange theory.

On a general level, however, organizational commitment is a factor that promotes the attachment of employees to their organizations (Gibbert & Ivancevich, 1999; Ngo & Tsang, 1998; Raju & Srivastava, 1994). In general, it focuses on an employee's bond with an organization. Theorists have distinguished organizational commitment as either an attitude or a force that binds employees to an organization. Employees are regarded as committed to their organization if they willingly continue their association with the organization and devote considerable effort to achieving organizational goals (Mowday, 1998; Raju & Srivastava, 1994). Meyer and Herscovitch (2001) broadly defined commitment as a force that guides a course of action toward one or more targets. They did capture the notion that employee commitment may be focused at different targets or levels within an organization. Employees, for instance, may feel a sense of commitment to their organization as a whole, their primary work team, and/or to their leader.

The fact that organizational commitment lacks construct clarity and has many foci suggests that several different types of employee commitment exist. Early work on the construct of organizational commitment conceptualized it from opposing perspectives. Two perspectives of organizational commitment seem to dominate the literature: behavioral and attitudinal.

From a behavioral perspective, Becker's (1960) side-bet theory views commitment from a fear-based orientation. According to him, employees had a tendency

to engage in “consistent lines of activity” (p. 33) because of the perceived consequences of failing to do so. On a cost-benefit analysis, the employee who was committed, perceived that he or she had more to lose by leaving the organization than by remaining with it. Thus, an employee becomes committed to an organization because of “sunk costs” that are too costly to lose. Kanter (1968) defined commitment as a “profit” associated with continued participation and a “cost” associated with leaving. That is, an employee stands to either profit or lose depending on whether he or she chooses to remain with the organization. Utilizing a social exchange theory framework, Grusky (1966) argues that employees bargain or exchange time and effort with an organization to obtain benefits or rewards. Specifically, organizational commitment results from a process in which members develop favorable or unfavorable perceptions of the exchange of benefits and costs and employee commitment to the organization varying accordingly. The most significant measure of this process is employee turnover.

In contrast, Buchanan (1974) defined it as “a partisan, affective attachment to the goals and values of the organization, to one’s role in relation to the goals and values, and to the organization for its own sake, apart from its purely instrumental worth” (p. 533). The idea was later conceptualized by Porter, Steers, Mowday, and Boulian (1974) as “the strength of an individual’s identification with and involvement in a particular organization” (p. 604). From this perspective, there are factors involved with an individual’s desire to remain with an organization: (a) a strong belief in and acceptance of the organization’s goals and values, (b) a willingness to exert considerable effort on behalf of the organization, and (c) a strong desire to stay with the organization because the person

enjoys being a member of the organization. Brown (1996) defined this type of commitment as attitudinal and described it as, “both a state of positive obligation to an organization and a state of obligation developed as a by-product of past actions” (p. 232). Past actions are comprised of both employee and employer deeds. In the relationship between an individual and an organization, the individual is willing to give of himself or herself in order to contribute to the organization’s well being (Mowday et al., 1982).

These two conceptualizations viewed commitment as having two different goals: (a) avoiding the costs associated with leaving the organization (Becker, 1960) or (b) maintaining an identity associated with being a member of the organization (Buchanan, 1974; Porter et al., 1974). Meyer and Allen (1991) incorporated these two conceptualizations into their three-component definition of commitment. First, they described affective commitment which refers to employees’ emotional attachment, identification with, and involvement in the organization. Employees with a strong affective commitment stay with the organization because they *want to*. Though different researchers have described the concept of affective commitment, it can be traced back to the theory of Buchanan (1974). Sheldon (1971) described it as having one’s identity linked to the organization. Kanter (1968) defined affective commitment as an attachment of an individual’s fund of affectivity and emotion to a group. It has been referred to as the process by which the goals of the organization and those of the individual become increasingly integrated and congruent (Hall, Schneider, & Nygren, 1970). Mowday, Steers, and Porter (1979) defined it as “the relative strength of an individual’s identification with and involvement in a particular organization” (p. 12). Committed

people are more likely to remain with an organization and work toward achieving organizational goals (Rhoades, Eisenberger, & Armeli, 2001). Additionally, committed employees are more likely to engage in extra-role behaviors such as creativeness or innovation, that contribute to the organization's competitive advantage.

Second, Meyer and Allen (1991) labeled an employees' decision to remain with an organization because the costs of leaving are deemed greater than the costs of staying as continuance commitment. Accordingly, employees who perceive that the costs of leaving the organization (e.g., reduction in pay, pension, benefits, and lack of alternative job opportunities) are greater than the costs of staying, remain with the organization because they *need to*. Employees with strong continuance commitment believe it is in their personal interest to remain with the organization (Meyer, Paunonen, Gellatly, Goffin, & Jackson, 1989). This type of commitment was also described by Hrebiniak and Alutto (1972) as "a structural phenomenon which occurs as a result of individual-organizational transactions and alternatives in side bets or bets or investments over time" (p. 556). It is a calculative bond rather than an emotional attachment with an organization. Some organizations attempt to build employees' continuance commitment by inducing employees with financial incentives such as low cost loans and stock options. Although these inducements may reduce turnover, they may do nothing for the emotional bond the employee feels for the organization (McShane & Von Glinow, 2000). Evidence suggests the employees with high levels of continuance commitment have lower performance ratings and are less likely to engage in organizational citizenship behavior.

The third type of organizational commitment included in Meyer and Allen's (1991) definition is referred to as normative commitment, which refers to employees' feelings of obligation to the organization. Employees with high levels of normative commitment stay with the organization because they feel they *ought to* (Meyer & Allen, 1991). Meyer and Allen (1997) proposed that a complex process of modeling others' behavior and conditioning influences this type of commitment. Thus, the normative commitment process occurs when individuals learn the expectations of their families, their society, and their organizations. In essence, individuals internalize a belief that being committed to their organization is either appropriate or the best choice. In an early conceptualization of this type of commitment, Wiener (1982) contended that employees with normative commitment do not develop a strong emotional attachment to their organization. Yet, employees who possess high levels of this form of commitment continue to work productively due to their cultural, familial, and organizational ethics that direct their behavior. Marsh and Mannari (1977) captured one aspect of normative commitment when they said that the committed employee considers it morally right to stay with a company regardless of other factors. Becker, Randall, and Reigel (1995) described normative commitment as reflecting congruency between employee goals and values and organizational aims make the employee feel obligated to his/her organization. From this point of view, organizational commitment has been defined as the totality of internalized normative pressures to act in a way that meets goals and interests of the organization (Wiener, 1982).

In arguing for their framework, Meyer and Allen (1991) asserted that affective, continuance, and normative commitment were better conceptualized as components rather than types since organizational members could have degrees of all three. In summing up their framework, Meyer and Allen (1997) describe their formulation this way:

One employee might feel both a strong attachment to an organization and a sense of obligation to remain. A second employee might enjoy working for the organization but also recognize that leaving would be very difficult from an economic standpoint. Finally, a third employee might experience a considerable degree of desire, need, and obligation to remain with the current employer. (p. 13)

Guzley (1991) contends that behavioral and attitudinal commitments differ in the ways that employees orient themselves toward their organizations. O'Reilly and Chatman (1986) found that attitudinal commitment yields an internalization of values and beliefs associated with prosocial behavior. This behavior exceeds the expectations of the employer. In contrast, behavioral commitment is associated with extrinsic issues (Guzley, 1991).

In reviewing the research on these three components, Meyer and Allen (1997) note that affective commitment has been found to be favorable for employees and organizational outcomes in terms of satisfaction, well-being, turnover, and higher productivity. Normative commitment has been found to be positively associated with organizational outcomes but to a much lower extent than affective commitment. In contrast, continuance commitment is generally perceived as unfavorable or negatively related to performance and other variables valued by organizations. In consideration of Meyer's and Allen's framework (1997) it is important to note that employees may

experience a high level of commitment to one of their types and not the others (Becker & Billings, 1993; Bishop & Scott, 1996).

O'Reilly and Chatman (1986) proposed their own model of commitment that is based upon three forms. First, employees may demonstrate commitment due to compliance or instrumental involvement for specific, extrinsic rewards (i.e., behavioral commitment). Second, employees may exhibit commitment because of identification or involvement with the organization based on a desire for affiliation. Finally, these authors proposed that employees may be committed to their organization because of an internalization or involvement predicated on congruence between individual and organizational values.

The Relevancy of Organizational Commitment

The saliency of employee commitment to an organization has been highlighted in the organizational literature (e.g., Allen & Meyer, 1990; Mowday et al., 1979). Since research suggests that organizational commitment is a complex (Becker, 1960), “multidimensional construct” (Morrow, 1993), correlates of organizational commitment have been investigated with respect to the antecedents and consequences of organizational commitment within diverse work environments. Research studies have explored commitment with corporate employees (Agarwala, 2003; Kanter, 1977; Wahn, 1998), manufacturing workers (Allen & Meyer, 1990), service workers (Testa, 2001), police personnel (Dunham, Grube & Castaneda, 1994; Jermier & Berkes, 1979), bank employees (Benkhoff, 1997; Mowday, Porter, & Dubin, 1974), retail management

trainees (Porter, Crampton, & Smith, 1976), hospital employees (Lok, Westwood, & Crawford, 2005; Steers, 1977; Welsch & LaVan, 1981), mental health workers (Nikolaou & Tsaousis, 2003), and university employees (Allen & Meyer, 1990; Billingsley & Cross, 1992; Celep, 1992; Chiefo, 1991; Meyer, Allen & Gellantly, 1990; Welsch & LaVan, 1981). Organizational commitment studies have been conducted internationally including Hong Kong (Ngo & Tsang, 1998), Australia (McMurray, Scott, & Pace, 2004), Japan (Agarwala, 2003; Tao, Takagi, Ishida, & Masuda, 1998), and the Middle East (Suliman, 2001).

Regardless of the work setting, researchers have sought to understand both the antecedents and consequences of organizational commitment. Many researchers have sought to explain the conditions or antecedents that are conducive with employee commitment. In contrast, studies that investigate the consequences of organizational commitment view it as an independent variable and seek to explain the potential it has to predict many organizational outcomes (Meyer & Allen, 1997).

In a review of empirical studies, Mowday and colleagues (1982) discovered a rich collection of findings related to both antecedents and consequences of organizational commitment. They noticed that the majority of these studies are correlational. In their review they noted four antecedents of organizational commitment: personal, role-related, structural, and work experience. Figure 2 provides a graphic representation of their findings.

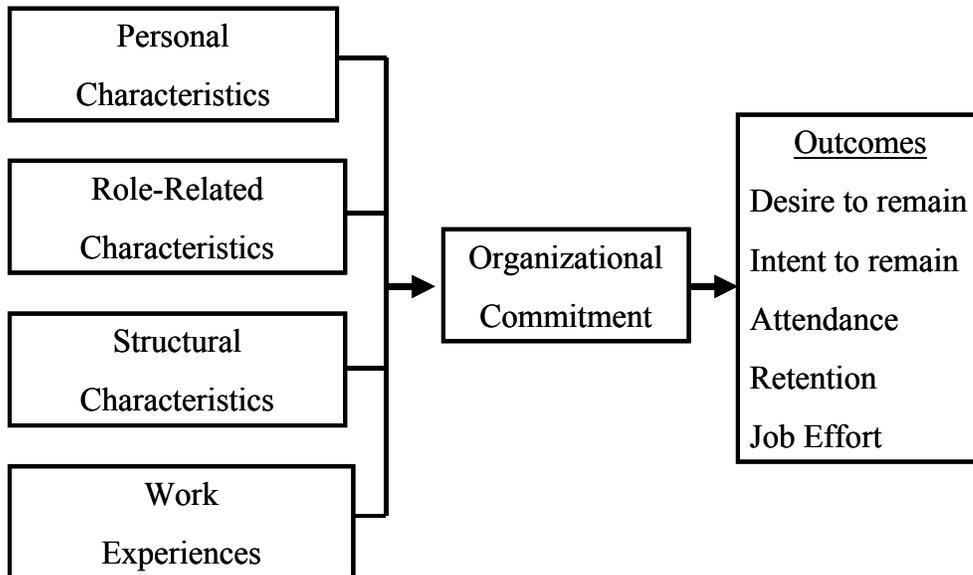


Figure 2. Antecedents and consequences of organizational commitment. From *Employee-organization linkages: The psychology of commitment, absenteeism, and turnover*, by R. T. Mowday, L. W. Porter, & R. M. Steers, 1982, New York: Academic Press. Copyright 1982 by Academic Press.

Antecedents of Organizational Commitment

Personal Characteristic Studies. According to Mowday and associates (1982), research on personal characteristic correlates of commitment have examined the effects of age, gender, marital status, work values, ability, salary, educational level, tenure, ability, perceived competence, and various personality factors. Findings indicate that commitment is positively related to tenure (Buchanan, 1974; Mowday, Steers, & Porter, 1979). Studies positively link tenure to organizational commitment (Hall, Schneider, & Nygren, 1970; Lee, 1971; Morris & Sherman, 1981). For instance, research shows that commitment grows slowly (Werbel & Gould, 1984); the longer employees are with an organization the more time they have to evaluate the relationship. Additionally, Buchanan (1974) found that employees' perceptions of their organizational experiences vary with the length of time they have been employed by the organization. Meyer and Allen (1997) held that employees may need a certain level of experience with an organization in order to become strongly attached to it or that more tenured employees develop commitment. In a study of urban elementary and middle school teachers, Kushman (1992) found that the number of years teaching correlated with organizational commitment. In contrast to these findings, Mowday and associates (1979) found that commitment is characterized by: (a) a strong belief in and acceptance of the organization's goals and values, (b) a willingness to exert considerable effort on behalf of the organization, and (c) a strong desire to maintain membership in the organization. These factors predict commitment regardless of how long someone has been employed by the organization. In contrast to those studies that show positive relationship, other

studies have indicated that tenure is not directly correlated with organizational commitment (Hall & Schneider, 1972; Steers, 1977).

Like job tenure, age has also been both positively associated (Morris & Sherman, 1981) and negatively associated (Steers, 1977) with organizational commitment. March and Simon (1958) held that as an employee's age increases, the person's opportunities for alternative employment become more restricted. Consequently, as the employee's degree of freedom decreases, the perceived attractiveness of the present employer may lead to an increased psychological attachment.

The role of gender in organizational commitment has also been the subject of investigation yielding mixed results. Some research indicates that men and women differ in their levels of organizational commitment (Marsden, Kalleberg, & Cook, 1993). As a group, women seem to be more committed to their organizations than men (Angle & Perry, 1981; Aryee & Heng, 1990; Mathieu & Zajac, 1990; Mowday et al., 1982). In contrast to these findings, Aven, Parker, and McEvoy (1993) completed a meta-analysis of research investigating the relationship between gender and organizational commitment and found no gender differences in their level of commitment. They contended that both men and women will commit themselves to an organization that treats them fairly. Likewise, Ngo and Tsang (1998) found no evidence to support the hypothesis that gender moderates organizational commitment.

Education appears to be inversely related to commitment. Mowday and associates (1982) have noted that commitment is related to achievement motivation, sense of competence, and other higher-order needs. Personal characteristics of commitment

suggest that individual differences must be taken into account in studying organizational commitment and are worthy of further investigation (Meyer & Allen, 1997; Mowday et al., 1982).

O'Reilly and Caldwell (1981) investigated the relationship between commitment and internal motives (i.e., interest in the job, own feelings about the job, responsibility the job provides, and the opportunity for advancement and external motives for selecting jobs) and extrinsic motives (i.e., family concerns, salary, advice of others, and geographical location). Findings revealed that both internal and external factors were significantly related to subsequent commitment.

Meyers, Bobocel, and Allen (1991) also investigated employee decisions to join an organization and their resultant commitment but found mixed results. Specifically, these investigators concluded that the best predictors of affective commitment were the perceived job quality and the perceptions of the quality of their decision (volition) to join the selected organization.

In several studies, Meyer and associates (Meyer, Allen, & Gellatly, 1990; Meyer, Allen, & Smith, 1993; Meyer, Bobocel, & Allen, 1991; Meyer & Smith, 2000; Meyer, Stanley, Herscovitch, & Topolnytsky, 2002) concluded that employee perceptions of employment opportunities and the viability of those options are correlated with continuance commitment. In other words, employees who expressed having more job alternatives evinced less continuance commitment than those employees who believed they had fewer job alternatives. Hrebiniak and Alutto (1972) also noted that lack of job alternatives resulted in employees remaining with their organizations. Whitener and Walz

(1993) also concluded that continuance is negatively associated with the perceived attractiveness of job alternatives. They accumulated a list of side bets or investments employees' risk losing by leaving the organization including retirement money, job security, and status.

In examining the relevancy of normative commitment, Dunham and associates (1994) found that role expectations might play a role in the development of normative commitment. These researchers held that co-workers often send signals about what they expect. Rousseau (1990) held that obligation-related antecedents and processes of normative commitment play a role in the psychological contract, which refer to "expectations about the reciprocal obligations that compose an employee-organization exchange relationship (Morrison & Robinson, 1997, p. 228). When an employee enters an organization an implicit agreement, known as the psychological contract (Rousseau, 2001; Schein, 1980) is established between the employee and employer. The psychological contract represents the employee's perceptions of what he or she deems as treatment. Rousseau (2001, 1995) contends that the psychological contract is promise-based and, over time takes the form of a mental model or schema which is relatively stable and durable. It stands to reason that normative commitment would be highest when an employee perceives that organization as honoring its end of the psychological contract. Unlike affective and continuance commitment, normative commitment directly encounters the roles of obligation, reciprocity, and fulfillment implicit in the psychological contract (Robinson, Krantz, & Rousseau, 1994). The key to understanding

the relationship between the psychological contract and organizational commitment may be found in normative commitment in that it deals with obligation.

Role-Related Studies. Role-related correlates of commitment studies investigate the relationship between commitment and its relation to employees' roles and job characteristics. Mowday and associates (1982) stated three related aspects of work role that have the potential to influence commitment: job scope or challenge, role conflict, and role ambiguity. Mathieu and Zajac (1990) assert that little theoretical work has examined role states related to commitment. They have found that employees who report greater levels of role strain report lower levels of commitment.

Organizational Structure Characteristic Studies. The literature also contains studies that examine how the structure of an organization influences commitment. Many different structural correlates have been examined including organizational size, formalization, functional dependence, decentralization, and management factors. Morris and Steers (1980) found that formalization, functional dependence, and decentralization were related to commitment but size and span of control were not. Other studies have focused on such structural correlates as organizational politics (Kiewitz, Hochwarter, Ferris, & Castro, 2002), vertical communication within an organization (Postmes, Tanis, & de Wit, 2001), organizational support (Eisenberger, Stinglhamber, Vandenberghe, Sucharski, & Rhoades, 2002; Rhoades & Eisenberger, 2002), subcultures (Lok et al., 2005), and perceptions of policy fairness and its influence on affective commitment (Meyer & Allen, 1997). For example, research findings have demonstrated significant

correlations between perception of policy fairness and emotional bonding to the organization.

Management and leadership factors have been found to affect employee commitment (Lok et al., 2005). Early research indicated that organizational commitment develops as the goals of the individual and the goals of the organization become integrated or congruent (March & Simon, 1958). Rousseau (1998) offered two means by which organizations can augment employees' commitment to their organization. First, employers can seek to enhance employees' perceptions of organizational membership. Second, organizations can demonstrate to employees that they are cared for and valued.

In a study involving 109 employees, Loui (1995) investigated the relationship between organizational commitment and the outcome measures of supervisory trust, job involvement, and job satisfaction. In all three outcomes, positive relationships with organizational commitment were reported; namely, perceived trust in the supervisor, an ability to be involved with the job, and feelings of job satisfaction were major determinants of organizational commitment. This relationship was also found in Whitener's (2001) study of a sample of 1689 employees from 180 credit unions. Her findings indicated that trust-in-management partially mediates the relationship between perceived organizational support and organizational commitment.

When employees were treated with consideration, they displayed greater levels of commitment. Koys (1988) found that perceptions of management's desire to show respect to their employees and their need to attract and retain quality employees increased employee affective commitment. In contrast, if employees perceived that management's

actions were motivated out of compliance with the law or to improve productivity affective commitment was not found. In a later study, Koys (1991) linked organizational commitment with fairness. Findings revealed that when employees perceived that the underlying motivation for management actions was fairness they were more likely to demonstrate affective commitment.

Huselid (1995) categorized human resource practices need into two broad areas: those practices that improve employee skill and those that enhance employee motivation. Examining the practice of employee development, Tansky and Cohen (2002) studied workers at a large Midwestern hospital and found that management efforts to develop employees were correlated with employee commitment. In a study of best Christian places to work, results found greater employee commitment among those organizations that engendered trust (Lee, 2004). Jerimer and Berkes (1979) discovered that employees who were allowed to participate in decision-making had higher levels of commitment to the organization.

Bycio and colleagues (1995) reported positive correlations between the leadership behaviors of charisma, intellectual stimulation, individualized consideration, and contingent reward and affective, continuance, and normative commitment. Schneider and Bowen (1985) found that when employees identify with the norms and values of their organization they are less likely to leave. In another study, Reichers (1986) studied mental health professionals and found a correlation between commitment and top management's goals and values. Reichers claimed that organizational commitment was in

reality a collection of commitments to multiple coalitions and constituencies (e.g., owners/managers, rank-and-file employees, customers/clients).

In seeking to understand commitment antecedents, Lok and associates (2005) studied 258 nurses drawn from various hospitals within Sydney, Australia. The purpose of their study was to assess the roles of subculture and leadership on commitment. Their findings revealed that innovative and supportive subcultures had stronger relationships with commitment than bureaucratic cultures. Moreover, they found a statistically significant relationship between leadership and commitment, but failed to assess exactly what types of leadership relate positively to commitment.

A more recent correlate of commitment is referred to as Perceived Organizational Support (POS). According to Foa and Foa's (1980), POS is an employee's evaluation of the extent to which the organization holds him or her in high regard (i.e., Does the organization care about my well-being and value my contribution?). To the extent that status fulfills socioemotional needs (e.g., the need for esteem, affiliation, and approval), employees should not only feel an obligation to the organization (Armeli, Eisenberger, Fasolo, & Lynch, 1998) but also develop a sense of unity with the organization, involving the incorporation of organizational membership into their social identity (Rhoades & Eisenberger, 2002). Based upon social-exchange theory, POS produces a feeling of obligation in the organizational member to care about the organization's well-being and to put forth effort that helps the organization achieve its goals. As a result, members may exhibit this obligation through increased organizational commitment. Although POS has been found (e.g., Moorman, Blakely, & Niehoff, 1998) to be related to a wide variety of

outcomes that benefit the organization, Rhoades and Eisenberger's (2002) meta-analytic integration of over 70 studies indicated that POS is most strongly related to organizational attachment-related variables such as affective commitment and withdrawal cognitions.

Work Experience Studies. Work experience correlates of commitment represent the fourth category of major antecedents. According to Mowday and colleagues (1982), work experiences are viewed as a significant socializing force and represent an important influence on the extent to which psychological attachments are formed with the organization. Meyer and Allen (1997) state that work experience variables are the strongest and most consistent correlates with affective commitment. This contention is buttressed by the work of Dunham and colleagues (1994), who conducted nine studies with nearly 3,000 workers on the role of supervisory feedback and employee involvement in their jobs. They found that supervisory feedback about employee performance and employee participation in decision-making contributed to greater levels of affective commitment than both continuance and normative. Similarly, Cohen (1996) discovered that nurses exhibited higher levels of commitment to their work, their job, and their career when they wanted to work for their organizations. In another study, Irving, Coleman, and Cooper (1997) found a positive relationship between job satisfaction and both affective and normative commitment, but a negative relationship between job satisfaction and continuance commitment. In contrast, each of the three commitment components was negatively related to turnover intentions, with continuance commitment having the strongest negative relationship. Benkhoff (1997) studied bank workers and

found that commitment was the central variable that closely linked work satisfaction and intention to stay with an organization and employee performance.

Work experience studies seek to find relationships between organizational commitment and such variables as climate (Gormley, 2005; Grant, 2002), organizational dependability, feelings of personal importance to the organization, employee expectations, perceived pay equity, group norms regarding hard work, leadership style, and social involvement. For instance, research has generally shown a negative relation among all three types of commitment and employee turnover (Allen & Meyer, 1996; Mathieu & Zajac, 1990).

Examining work experiences, Tao and colleagues (1998) found in a study of 203 Japanese industrial workers that organizational climate was the most powerful predictor of organizational commitment. Organizational climate was operationalized in terms of group cohesiveness, showing that relationships with other workers play a critical role in employee loyalty to the company itself.

Jermier and Berkes (1979) investigated the relationship between job satisfaction and organizational commitment. They discovered that employees who were more satisfied with their job had higher levels of organizational commitment. Welsch and LaVan (1981) found five organizational variables that predicted employee commitment: communication, decision-making, leadership, motivation, and goal setting. Studying 772 business executives in Hong Kong, Ngo and Tsang (1998) found that both work flexibility and firm internal labor markets significantly impact affective organizational commitment and that internal labor markets also impacted continuance commitment.

Brown and Peterson's (1993) meta-analysis suggested that salesperson job satisfaction leads to organizational commitment. When employees receive a sense of satisfaction from their jobs, they show a favorable attitude toward their workplace and respond with increased commitment to the organization.

Grant (2002) found that previous work experience colors one's level of commitment to a new organization. Using qualitative inquiry, Grant found that new workers with no work experience are influenced by organizational climate factors and subsequently establish their level of commitment. Those employees with a history of work experience come to the organization with an established level of commitment that is accordingly modified by the organization's climate.

Consequences of Organizational Commitment

In addition to studies that primarily seek to identify the antecedents of organizational commitment, researchers have also focused on the consequences of commitment. The motivation is to harness the benefits of organizational commitment with the hopes of linking it to desirable organizational outcomes. In fact, the majority of studies have treated organizational commitment as an independent variable showing that it is predictive and promotes many desired work outcomes such as: organizational climate (Carr, Schmidt, Ford, & DeShon, 2003; Tao et al., 1998); organizational effectiveness (Steers, 1975); job satisfaction (Jermier & Berkes, 1979; Loui, 1995; Stone & Porter, 1975); increases in job involvement (Loui, 1995); attendance and lateness (Mathieu & Zajac, 1990); an environment that promotes high morale (Christian, 1986) and trust

(Loui, 1995; Whitener, 2001); improves employee performance (Wiener & Vardi, 1980); organizational support (Bishop, Scott, & Burroughs, 2000; Shore & Tetrick, 1991); human resource practices such as equitable compensation (Agarwala, 2003; Ngo & Tsang, 1998; Wood & de Menezes, 1998) and opportunities for achievement (Brown, 1996; Hall et al., 1970); management factors such as communication (Welsch & LaVan, 1981), decision-making, leadership (Bycio, Hackett, & Allen, 1995; Jermier & Berkes, 1979; Welsch & LaVan, 1981), employee development (Tansky & Cohen, 2002), motivation (Welsch & LaVan, 1981), and goal-setting (Welsch & LaVan, 1981), consideration of employees (DeCotiis & Summers, 1987; Koys, 1988); the degree of person-organization fit (Vancouver & Schmitt, 1991; Wiener, 1982); emotional intelligence (Nikolaou & Tsaousis, 2003); and unsurprisingly, reduces absenteeism and turnover intentions (Angle & Perry, 1981; Carr, Schmidt, Ford, & DeShon, 2003; DeCotiis & Summers, 1987; Gifford, Zammuto, & Goodman, 2002; Hoy, Tarter, & Kottkamp, 1991; Mowday et al., 1982; Parker, Baltes, Young, Huff, Altmann, LaCost, & Roberts, 2003; Porter et al., 1974; Rhoades & Eisenberger, 2002).

Wiener and Vardi (1980) looked at the effect that organizational commitment had on commitment to the job and career commitment. They reported positive relationships between organizational commitment and the two other types of commitment.

Angle and Perry (1991) studied the effects that organizational commitment had on turnover. Findings revealed a negative relationship between turnover and organizational commitment. Unsurprisingly, employees who intended to leave their job were not committed to the organization.

DeCotiis and Summers (1987) examined the relationship between organizational commitment and the outcome measures of individual motivation, desire to leave, turnover, and job performance among 367 managers and their employees. Overall, they found that human resource processes such as leadership, communications, and decision-making were correlates to commitment. Specifically, these researchers found that organizational commitment has direct negative influences on turnover intentions and actual turnover and that job satisfaction exerted a fairly strong influence on commitment.

Becker (1992) studied 763 employees to examine whether their commitment to different constituencies or to the overall organization was a better predictor of job satisfaction, intention to quit, and pro-social behavior. Findings showed that employees' commitment to top management, supervisors, and work groups contributed significantly beyond commitment to the organization. Becker, Billings, Eveleth, and Gilbert (1996) found that employee commitment to the supervisor and the supervisor's values were more strongly related to performance ratings for newly hired employees than was employee commitment to the organization. Summarizing these multiple constituency findings, Meyer and Allen (1997) argued that measures of organizational commitment are actually a measure of employee commitment to top management or a combination of top management and more local foci (Becker & Billings, 1993; Hunt & Morgan, 1994).

Meyer and Allen (1997) held that employees with strong affective commitment are motivated to higher levels of performance and make more meaningful contributions than employees who expressed continuance or normative commitment. In a hospital setting, Cohen and Kirchmeyer (1995) investigated the relationship between Meyer and

Allen's (1997) three components and the non-work measure of resource enrichment. Results indicated positive relationships between resource enrichment and two components (i.e., affective and normative commitment). Between continuance commitment and resource enrichment a negative relationship was found. In effect, employees who were staying with the organization because they wanted to or felt they ought to, indicated higher involvement and enjoyment with work activities. Those employees, however, who continued employment out of some sense of obligation, demonstrated less involvement and greater dissatisfaction with work activities.

Commitment in Educational Organizations

Several studies have investigated organizational commitment of both educators and administrators in academic institutions and both groups were found to exhibit commitment to their organizations (Billingsley & Cross, 1992; Borchers & Teahen, 2001; Celep, 1992; Chieffo, 1991; Raju & Srivastava, 1994; Richards, Arkyod, & O'Brein, 1993; Thornhill, Lewis, & Saunders, 1996; Wolverson, Montez, Guillory, & Gmelch, 2001). Of note is the study by Chieffo (1991), who found that college and university mid-level administrators were primarily committed to their organizations because of the nature and autonomy of their work.

Research has shown many higher education organizational variables that are correlated with commitment. Chieffo (1991) found that leadership behaviors such as vision, influence orientation, people orientation, motivational orientation, and values orientation were associated with employee institutional commitment. In a study by

Billingsley and Cross (1992), four predictors of faculty commitment were identified: leadership support, role conflict, role ambiguity, and stress. They concluded that increasing administrative support and particular administrator behaviors such as feedback, encouragement, acknowledgement, use of participative decision-making, and collaborative problem-solving build commitment.

Thornhill and associates (1996) studied the role of communication and commitment. They found that the flow of information downward to employees, the flow of information upward, and management style significantly affected employee commitment. Postmes and colleagues (2001) found that vertical communication within an organization is significantly related to organizational commitment. Colbert and Kwon (2000) found organizational variables such as organizational dependability, support, and instrumental communication were significantly related to employee commitment. Significance was also found between commitment and organizational tenure and skill variety.

An interesting finding emerged from Borchers and Teahen's (2001) study, where they found that commitment does not vary significantly between full and part-time faculty or between those in residence and those on-line. Wolverton and associates (2001) found that commitment of deans seemed to increase with age, number of years in the position, and the overall level of job satisfaction. They also found that deans were more committed if they considered their organizations to exhibit high academic quality and good environmental quality. Likewise, Angle and Perry (1981) and Morrow and McElroy (1987) found that age was positively correlated with commitment.

The Changing Face of Organizational Commitment

Rousseau (1998) suggests that because careers are increasingly characterized by change rather than stability, employees are unlikely to have strong commitment to their employers. Stahl and Gerdin (2004), for example, found that German expatriates were willing to leave their employers after repatriation. In a study of 500 medical technicians, Blau (2000) found that approximately 20% reported that they had changed jobs during a one-year period. In the United States, young baby-boomers (born between 1957 and 1964) changed jobs frequently, holding an average of 10.2 jobs from ages 18 to 38 (US Department of Labor, 2004). Research suggests that employers impact employee loyalty in direct and indirect ways. Ng, Butts, Vandenberg, DeJoy, and Wilson (2006), for instance, studied 1770 full-time employees and 273 part-time employees of a large national retailer to assess the impact of management practices on the perception of organizational membership and organizational commitment. The results of their studies supported the belief that organizations that demonstrate care and that promote organizational membership increase employee commitment. Further, employers are offering less opportunity for traditional employment in favor of alternative forms of contingent employment (e.g., contractors, part-time, temporary workers, and agency staff). Studies (e.g., Houseman, 1996; White, Hill, Mills, & Smeaton, 2004) suggest that non-traditional forms of employment are now prevalent worldwide. Unsurprisingly, longitudinal studies have revealed that the tendency of employers to weaken their loyalty to their employees through such activities as downsizing and non-traditional employment

is diminishing, rather than strengthening organizational commitment (Bentein, Vandenberg, Vandenberghe, & Florence, 2005; Lance, Vandenberg, & Self, 2000).

Measures of Organizational Commitment

Measures of organizational commitment are as diverse as its definitions.

Quantitative scales have been developed by many researchers (Brown, 1996; Buchanan, 1974; DeCotiis & Summers, 1987; Hrebiniak & Alutto, 1972; Kanter, 1968; Schneider & Hall, 1972; Sheldon, 1971), but most of them suffer from reliability and validity problems and fail to capture the multi-dimensional nature of organizational commitment. In an effort to develop a qualitative measure, Wiener and Gechman (1977) asked employees to keep diaries of voluntary work-related activities on personal time, using a decoding procedure to estimate organizational commitment.

Two quantitative organizational commitment scales are worth noting. Without a doubt, the most widely used commitment measure in the literature is the Organizational Commitment Questionnaire (OCQ; Porter et al., 1974). The OCQ is a 15-item survey designed to measure employee satisfaction and commitment in the organization. An examination of the psychometric properties of the OCQ revealed internal consistency among the items, test-retest reliability, and evidence for the predictive validity of the instrument (Mowday et al., 1979). The authors offer several problems with the questionnaire, including the ease at which respondents could manipulate the scores (Mowday et al., 1979).

Similarly known as the Organizational Commitment Questionnaire (OCQ), Meyer and Allen (1993) developed an instrument to assess commitment according to their three-component model. Meyer and Allen (1984, 1991; 1997; Allen & Meyer, 1990) used the terms affective and continuance commitment to distinguish between the views of commitment popularized by Porter and his associates (Mowday, Steers, & Porter, 1979; Porter et al., 1974) and Becker (1960), respectively. The Meyer and Allen inventory is an 18-item, self-scoring questionnaire in which respondents rate their responses using a 5-point Likert scale with anchors labeled as follows: 1 = *Strongly Disagree*, 2 = *Disagree*, 3 = *Neither Agree nor Disagree*, 4 = *Agree*, and 5 = *Strongly Agree*. Several experts (Cohen, 1996; Ward & Davis, 1995) consider Meyer and Allen's (1993) instrument superior to other organizational commitment measures because of its ability to capture the multidimensional nature of the commitment construct and its high reliability and supportive factor analysis. For these reasons, this instrument was chosen for this study. Validity and reliability findings will be reviewed in the following chapter.

Organizational Climate and Organizational Commitment

The research evidence concerning the relationship between climate and commitment is limited, with most of the studies considering only isolated fragments of the climate construct (March & Simon, 1958; McGregor, 1960). Early findings indicated that commitment develops as the goals of the individual and organizational goals become integrated or congruent (March & Simon, 1958).

Welsh and LaVan (1981) investigated the relationship of organizational climate and commitment of professional technicians and administrative personnel at a Veterans Medical Center. They hypothesized that the more the perception of organizational climate is seen as participative, the greater the organizational commitment. They identified several different variables such as communication, decision-making, leadership, motivation, and goal setting that could lead to increased organizational commitment such as job satisfaction, job characteristics, professional behavior, and organizational climate. They found that all climate variables were significantly and positively related to organizational commitment with communication demonstrating the highest significance.

Operating from a social exchange perspective in general, and organizational support theory in particular, Eisenberger, Fasolo, and Davis-Lamastro (1990) examined the role of perceived organizational support (POS) in relation to a number of employee outcomes. The notion of POS suggests that employees make attributions about the quality of their relationship with their organization and subsequently conclude the degree to which the organization supports them and values them. In essence, POS is an employee's belief about the degree of organizational affective commitment toward that employee. Based upon their study of 422 hourly employees in a steel plant, Eisenberger and associates found that the frequency and sincerity of such organizational discretionary activities as praise and approval and other employee rewards such as pay, promotion, and influence over policies can translate into increased prosocial acts carried out on behalf of the organization. The relationship between POS and effort-reward expectancies can be significant. Expected rewards for greater effort could strengthen and in turn be influenced

by the employees' perception that the organization valued their contributions. They found that employees who perceived low support from the organization were twice as likely to be absent than those who perceived high levels of organizational support. Employees who perceived high support evinced greater affective commitment and stronger expectancies that high effort would result in increased pay, promotion, and social rewards (i.e., continuance commitment); that is, reciprocity. The findings of Eisenberger and associates demonstrated a clear relationship between psychological climate and such correlates of organizational commitment as absenteeism, diligence, innovation, and organizational identification.

In a later study, Eisenberger, Stinglhamber, Vandenberghe, Sucharski, and Rhoades (2002) studied 300 employees from a chain of large discount electronic and appliance stores located in the northeastern United States. They sought to investigate the relationship of such climate variables as perceived supervisory support (PSS) and perceived organizational support (POS) on employee turnout, a related factor to commitment. Correlations yield a positive relationship between POS and employee retention.

Similarly, Shore and Wayne (1993) found that employees who perceived a high level of organizational support were more likely to feel a sense of obligation to the organization in terms of affective commitment. They found that affective commitment was positively related to organizational citizenship behaviors whereas continuance commitment was negatively related.

Turan (1998) investigated the relationship between organizational climate and teacher commitment in secondary schools in Bursa, Turkey. Turan administered the Organizational Climate Description Questionnaire (Hoy, Tarter, & Kottkamp, 1991) and the Organizational Commitment Questionnaire (Mowday et al., 1979) to 900 randomly selected teachers in 40 secondary public schools in a large city. Her findings indicated that there was no statistically significant relationship between overall climate and commitment.

In contrast to the studies that have used organizational commitment as an independent variable, there are only a few studies that have examined it as a mediating variable. In other words, commitment mediates antecedent-consequence relationships; the antecedents predict commitment, and commitment in turn predicts the consequences. Suliman (2001) examines the literature on these studies and concludes that commitment can indeed function as a mediating variable. He studied 1,000 employees from 20 industrial companies in the Middle East to assess the mediating value of commitment on organizational climate, performance, and supervisor performance. From the 783 (78.3%) questionnaires that were returned he found that commitment partially mediated the relationship between climate and self-rated performance. Those found to be committed to their employers rated their performance more positively than those who were less committed. Further, those who perceived their climate less positively rated their performance less positively.

Chiang (2001) used organizational climate as an independent variable, organizational commitment as the intervening variable, and organizational citizenship

behavior as the dependent variables to understand their relationship. Findings indicated that there was a significant positive correlation between the three variables.

Organizational commitment was found to have a mediating effect between organizational climate and organizational citizenship behavior. The researcher concluded that employers could increase organizational citizenship behaviors by improving their climate and increasing employee commitment.

Grant (2002) conducted a qualitative and quantitative study of organizational climate and commitment of an urban non-profit organization. In addition to interviews, Grant administered surveys to 225 employees of an urban non-profit organization to assess how the nine dimensions of McNabb and Sepic's (1995) Organizational Climate survey and the three components of Meyer and Allen's (1997) Organizational Commitment Questionnaire were related. Correlations were found between seven of the nine climate dimensions and two of the commitment components. Specifically, the climate dimensions of warmth and support, structure, organizational identity, approved practices, conflict, rewards, and ethical practices were most strongly related to affective commitment. The climate dimensions of rewards, conflict, warmth and support, approved practices, structure, and ethical practices were significantly related with normative commitment. For both affective and normative commitment the climate dimensions of responsibility and risk showed no significant associations. No significant associations were found for continuance commitment and the nine climate dimensions.

McMurry and associates (2004) examined the relationship between organizational commitment and organizational climate. Interestingly, they noted that a review of the

literature found no study that set out to test this relationship. The investigators used Meyer and Allen's (1990) questionnaire and Koys and Decotiis's (1991) measure on organizational climate to assess employee perceptions at three automotive manufacturing companies in Australia. Results of their investigation indicated a statistically significant relationship exists between organizational commitment and climate.

Most recently, Gormley (2005) studied the impact of organizational climate, role ambiguity, role conflict, work role balance on 316 full-time tenured track nursing faculty's organizational commitment and turnover intention. Organizational climate was assessed with the Organizational Climate Description Questionnaire—Higher Education (OCGQ, Borrevik, 1972) and organizational commitment was measured by the OCQ (Meyer & Allen, 1997). Using organizational commitment as the dependent variable, Gormley found that role ambiguity and role conflict scores were affected by low, moderate, and high levels of research, teaching, and service components of work role balance. She found that role ambiguity and role conflict were significantly negatively correlated with the three types of organizational commitment (i.e., affective, continuance, and normative). In contrast, the organizational subscales of consideration, intimacy, and production emphasis were positively related to the three types of commitment and negatively related to turnover intention. In sum, Gormley's study revealed that intention to leave employment could be predicted by role ambiguity and the three types of commitment along with the climate subscales of intimacy and disengagement.

In sum, the scant literature on organizational climate and organizational commitment seems to indicate that a relationship between the two constructs exists. The

limited studies that investigated this relationship in higher education seem to agree with the overall literature findings. No studies, however, have investigated the existence of the relationship in Christian higher education.

Summary

An abundance of evidence exists that demonstrates the relevance of climate and commitment in organizational functioning. Research has demonstrated that organizational climate is a useful tool for understanding the complexities of organizations. Though researchers disagree on specific definitions of organizational climate, most definitions find commonality in holding that organizational climate (a) deals with psychologically meaningful aspects of the work environment, (b) are shared or perceived similarly among employees of the work environment, (c) impacts worker attitudes and behaviors, and (d) varies across work environments. One employee attitude and behavior that has received considerable research attention is employee organizational commitment. Strong research support exists for Meyer and Allen's (1997) three-component framework of commitment that is measured by their Organizational Commitment Questionnaire.

In spite of the extensive historical roots of Christian higher education, there is a lack of research investigating it as an organizational entity. The need exists for research to explore the complexities of Christian higher education climate and campus personnel commitment to those institutions. The following chapter will present the methodology of this present analysis.

CHAPTER 3. METHODOLOGY

The first two chapters of this present study have described the saliency of organizational climate and organizational commitment. Moreover, the need for research into the climate of Christian colleges and universities has also been established. This research follows a current trend to understand organizational climate in higher education and extends it to Christian higher education. Specifically, administrative, faculty, and staff perceptions of organizational climate and commitment in Christian higher education will be studied.

This chapter provides a review of the methodology used in the study. It delineates the research design, sample, hypotheses, procedures, data collection measures, and the specific tests used in the present study.

General Investigation Design

The design is a non-experimental, descriptive correlational study. The present study uses a survey method to assess organizational climate and commitment. The level of analysis is the organization as a whole. Particular categorization of employees, however, is addressed in the analysis. Participants will take a brief demographic questionnaire and two standardized surveys. In order to provide a quantitative measure of organizational climate, participants will be administered the Personal Assessment of

College Environment (PACE; NILIE, 2005). The Meyer and Allen (1991) Organizational Commitment Questionnaire (OCQ) will be administered to assess employee organizational commitment.

Kerlinger (1986) defined field studies as nonexperimental, scientific inquiries aimed at discovering the relations and interaction among sociological, psychological, and educational variables in real social structures. Hypothesis testing field studies have been described as research studies aimed at discovering or uncovering relations (Kerlinger, 1986). The hypothesis testing field study fits the nature of the study in question since the relationships between organizational climate, organizational commitment, and demographic variables will be examined.

Overview of the Study

Rationale for Design

According to Barker, Pistrang, and Elliott (2002) there are several advantages associated with quantitative designs. First, quantitative designs enable greater precision in measurement because they require well-developed reliability and validity theory to assess measurement errors. In short, it provides a solid foundation upon which researchers can place confidence in their findings. Second, they have a well-established statistical method, which allows data to be easily summarized to foster the communication of results. Third, quantitative methods facilitate comparison. Since quantitative designs provide the opportunity for researchers to obtain reactions of a large number of people

they can make comparisons across those individual reactions. Finally, they provide a more stable basis for generalizing findings beyond the study sample.

The specific quantitative method used in this research is the survey method. A survey is an appropriate method for collecting data for descriptive or exploratory studies (Pettit, 1993) about a well-defined population (Foddy, 1996). Survey research is concerned with the relationship between two categories of variables. Smither, Houston, and McIntire (1996) stated “employee opinion surveys have become a mainstay data gathering technique of organizational development practitioners in large organizations” (p. 160). It can be used in studies in which individuals are the unit of analysis. It is best suited for measuring attitudes, obtaining personal and social facts, and assessing beliefs (Babbie, 1983; Foddy, 1996; Kerlinger, 1986) in a confidential manner (Smither et al., 1996). The design allows a large number of individuals to be surveyed in a shorter time frame and at less cost than either direct observations or interviews (Kerlinger, 1986). Answers are shown in percentages or means of employee response to options for each question.

The strength of this type of study is that the variables are measured in real social settings as they exist at the time of the study. They also provide useful information about a population without the cost and effort of surveying the entire population. If designed properly, surveys can obtain a wide variety of information which tends to be within the sampling error (Kerlinger, 1986). Survey focuses on the breadth of information, not

necessarily the depth of information. While survey provides accurate information, sampling error can dramatically impact results (Foddy, 1996).

As for correlational methodology, Gay (1992) pointed out a constraint of correlational studies as the impossibility “to infer causality from the results” (p. 427). He further suggested testing for a simple linear relationship between variables and if such relationship exists, then “predicting the value of one variable given the value of another is possible” (p. 428).

Study Participants

A total of twenty evangelical Christian higher education schools were contacted for participation in this present study. Only schools whose mission was to provide an education based upon a Christian world-view were queried. As a result, four schools located in Southwest, the Midwest, and the Eastern United States agreed to participate in this study. Respondents to the survey were administrators, faculty, and staff members.

Each of the schools agreed to the study and encouraged their personnel to respond to the study. To ensure that responses were representative of the majority of employees, the total population within each school was surveyed. Though the intent of this present research was to conduct a census sampling and collect data on all employees, it was recognized that 100% participation was improbable. The total number of potential participants to be surveyed across the four schools was 2076.

The employee classification of each participant was determined. The classification of administrators was operationalized as those employees whose primary duties were administrative in nature. For example, department chairs were classified as faculty if their primary work was teaching. Staff was operationalized as any employee who provided non-administrative and non-academic services.

Research Measures

The delivery method chosen to survey participants was an on-line format. This approach was chosen for several reasons. First, it was believed that campus employees would more readily respond to an on-line survey rather than a paper and pencil survey. Second, an on-line survey allows for maintaining the integrity of the questionnaires and ensuring accuracy in data recording.

SurveyMonkey was the chosen format for building and administering the survey. A separate survey was developed for each school in order to customize the survey for each institution. Each employee who chose to respond to the survey completed three sections with instructions for each section. The survey sections consisted of Demographic questions, the Personal Assessment of College Environment questionnaire (PACE; NILIE, 2005), and the Organizational Commitment Questionnaire (OCQ; Meyer & Allen, 1991). Permission was obtained to use both the PACE and OCQ (copies of the permission letters are available upon request). Prior to completing the actual questionnaire sections, participants were presented with information on the study in order

to obtain informed consent. It was estimated that approximately 20 to 30 minutes was necessary to complete the surveys.

Demographic information

The first section of the on-line survey queried nine demographic factors. The nine demographic items were as follows: employee classification (i.e., administrator, faculty, staff), payment status (i.e., salary, hourly), employment status (i.e., full-time, part-time), age, gender, ethnicity, highest level of education, years of organizational service, and years of working in higher education.

The Personal Assessment of College Environment (PACE)

The Personal Assessment of College Environment (PACE; NILIE, 2005; see Appendix A) was originally developed by Baker (1992) and updated by Baker and Hoover (1997). Since then, The National Initiative of Leadership and Institutional Effectives (NILIE) obtained the rights for the test. The most current version of the PACE (NILIE, 2005) is a 46-item survey instrument that captures a “snapshot” of four climate dimensions believed to be part of a campus environment. These dimensions were coded as follows for data analysis purposes: (a) Institutional Structure [IS], (b) Supervisory Relationship [SR], (c) Teamwork [TW], and (d) Student Focus [SF]. The PACE uses a 5-point Likert scale with the following descriptors: 1 = *Very Satisfied*, 2 = *Satisfied*, 3 = *Neither Satisfied or Dissatisfied*, 4 = *Dissatisfied*, 5 = *Very Dissatisfied*, and 0 = *Not Applicable*. Overall, PACE has demonstrated sound reliability with a coefficient of

internal consistency (Cronbach's Alpha) of 0.9760. For the factors, the reliability is as follows: Institutional Structure (0.9549), Supervisory Relationships (0.9488), Student Focus (0.9463), and Teamwork (0.9440). Two recent studies have also demonstrated PACE's validity (Caison, 2005; Tiu, 2001). Permission was granted by NILIE to use this instrument for this research endeavor, but a fee was charged for use. According to NILIE (2005), the norm base for the PACE has been generated from approximately 45 different community college institutions of varying sizes. According to NILIE (2005), factor means are as follows: Supervisory Relationships (3.62), Institutional Structure (3.31), Teamwork (3.67), Student Focus (3.80), and an overall mean of 3.57.

The Organizational Commitment Questionnaire (OCQ)

The Organizational Commitment Questionnaire (OCQ; Meyer & Allen, 1997) is an 18-item questionnaire that was originally developed to assess employee commitment to their organizations (see Appendix B). The OCQ is comprised of three scales described and coded as follows: (a) Affective Commitment [AC], (b) Normative Commitment [NC], and (c) Continuance Commitment [CC]. Each scale contains six questions that are scored using a 5-point Likert scale with the following descriptors: 1 = *Strongly Disagree*, 2 = *Disagree*, 3 = *Neither Agree nor Disagree*, 4 = *Agree*, 5 = *Strongly Agree*, and 0 = *Not Applicable*. Items 2, 5, 6, 12, 15, and 18 assess affective commitment. Items 3, 10, 11, 13, 16, and 17 are scored for normative commitment. Finally, items 1, 4, 7, 8, 9, and 14 measure the component of continuance commitment. All items are scored in the positive direction except items 12, 13, 15, and 18 which are scored in the reverse

direction. Minimum and maximum subscale scores range from 6 to 42. Allen and Meyer (1990) conducted an analysis of the three commitment components. They found that the continuance commitment scale was relatively independent: affective ($p < .001$, $r = .06$) and normative ($p < .001$, $r = .14$), but that correlations between the affective and normative scales were statistically significant and relatively strong ($p < .001$, $r = .51$). Similar findings were noted by Cohen (1996).

Strong support has also been found for the OCQ's reliability. Allen and Meyer (1990) reported median coefficient alphas as .87 for affective commitment, .75 for continuance commitment, and .79 for normative commitment. Other studies on reliability (e.g., Cohen, 1996; Dunham et al., 1994) found similarly favorable alphas. Test-retest reliability was reported between .60 and .94 when the scales were administered at one and two month intervals. Operationalized measures of the three-component commitment model have been shown to predict many important organization outcomes such as task performance, contextual performance, and job satisfaction (Herscovitch & Meyer, 2002; LePine, Erez, & Johnson, 2002; Meyer et al., 1990; Meyer & Herscovitch, 2001).

Research Variables

For the purposes of conducting a correlational analysis, predictor and criterion variables were identified. The primary criterion variables were the total OCQ scores and each of the three component scales. Primary predictor variables were the PACE total score and each of the 4 factor scores.

Additional predictor variables include participant demographics depicted and coded as follows: Participant Classification, Participant Employee Status, Payment Method, Participant Age, Participant Gender, Ethnicity, Years in Higher Education, Years of Organizational Service (i.e., tenure), and Participant Highest Level of Education. A separate analysis was conducted using organizational climate as the criterion variable and the demographics as the predictive variables using the same coding mentioned above.

Although data was examined in aggregate, an Institutional variable (A, B, C, and D) was utilized to compare the climates and commitments of the respective institutions. As a benefit for participating in the study, each school was given a report of their employee's perceptions of climate and organization compared with the other institutions.

The Organizational Commitment Questionnaire criterion variables are depicted and coded as follows: OCQ total score, Affective Commitment, Normative Commitment, and Continuance Commitment. Finally, employee classification was compared among the three groups (i.e., administrators, faculty, and staff) in relation to their perceptions of climate and commitment.

Research Questions and Hypotheses

Three research questions were investigated in this present study. Hypotheses that are associated with each question are also presented. The questions and hypotheses were as follows:

1. What is the relationship between administrators' perception of organizational climate and their organizational commitment? The null hypothesis is that there is no statistically significant relationship between organizational climate and organizational commitment of Christian college and university administrators (no difference between the slope of the line and zero— $b = 0$). The hypothesis is that there is a statistically significant ($p < 0.01$) correlation between administrator perceptions of organizational climate as measured by the Personal Assessment of College Environment and their commitment to the organization as measured by the Organizational Commitment Questionnaire.
2. What is the relationship between faculty members' perception of organizational climate and their organizational commitment? The null hypothesis is that there is no statistically significant relationship between organizational climate and organizational commitment of Christian college and university faculty (no difference between the slope of the line and zero— $b = 0$). The hypothesis is that there is a statistically significant ($p < 0.01$) correlation between faculty perceptions of organizational climate as measured by the Personal Assessment of College Environment and their commitment to the organization as measured by the Organizational Commitment Questionnaire.
3. What is the relationship between staff members' perception of organizational climate and their organizational commitment? The null hypothesis is that there is no statistically significant relationship between organizational climate and

organizational commitment of Christian college and university staff (no difference between the slope of the line and zero— $b = 0$). The hypothesis is that there is a statistically significant ($p < 0.01$) correlation between staff perceptions of organizational climate as measured by the Personal Assessment of College Environment and their commitment to the organization as measured by the Organizational Commitment Questionnaire.

Study Procedures

Information about this present study was detailed in an e-mail sent to a specific member of each institution's administration. Those who replied to the e-mail were given additional information and agreement to participate was requested. Four schools agreed to participate.

Participant institutions were asked to comply with the following. First, each school was asked to provide an employee count to the investigator. The employee count was to be delineated by employee classification (i.e., administrators, faculty, and staff). A statistical analysis was performed to examine response rate of each institution's personnel according to employee classification (i.e., staff, faculty, and administrators).

Second, each school was asked to disseminate information about the study to all personnel. The information described the nature of the study, its importance to the institution, how to access the instruments through the on-line website, and a timeline for completion.

Third, each school was asked to encourage all of their personnel to complete the survey. Weekly reminders were emailed to personnel to encourage participation. Prior to responding to the survey questions, each participant was required to read and provide consent. Respondents were not able to access the questionnaires unless they acknowledged their understanding of the research and offered consent by choosing (i.e., clicking with the mouse) the appropriate radio button alongside each statement.

Data Collection Procedures

The survey instruments were compiled into an on-line survey. Following the creation of the online survey, at two different points in time readers read each question from the original survey instruments out loud while another person reviewed the wording of the on-line survey. Separate surveys were created for each school by copying the survey from the one originally created. In order to ensure integrity of administration, the survey was constructed to allow each respondent to take it only one time. To provide allowance for interruptions during administration, the survey allowed respondents to log in and log out without losing their previous work. The survey prevented them, however, from being able to change any of their previous responses.

Data collection occurred throughout April and into May 2006. Each school's representative was emailed the link to the survey and asked to e-mail it to their personnel. Computers were made available for personnel who did not have access to computers in order to complete the survey. Weekly reminders containing the link were e-mailed to

personnel in order to promote participation. A time analysis was used to capture the level of time each respondent took in completing the survey.

Statistical Analysis

At the end of the data collection period, the surveys were closed to participants. The extant data was downloaded directly into SPSS 14.0 for Microsoft Windows© (SPSS Inc., 2006) for analysis. SPSS 14.0 for Microsoft Windows© (SPSS Inc., 2006) has been widely used for over 30 years. This program offers the investigator a broad range of capabilities. SPSS allows the definition and entry of survey data in a spreadsheet format, which allows for easy tracking of the data entry process. The graphical capability of SPSS enabled visual inspection of relationships between variables for linearity.

This study used several statistical processes including both descriptive statistics and inferential statistics to evaluate the collected data. First, the response rate of returned surveys was determined. Each school provided an employee count categorized by employee classification prior to the study. Based upon those numbers, response rate was calculated for each institution, for each classification, and for the aggregate sample to determine precision levels and confidence levels of the data. Harris (1985) recommends a minimum ratio of 10 participants per each predictor in the study. Although scholars debate appropriate sample size for regression analysis (Green, 1991; Harris, 1985), Olejnik (1984) puts the debate in context in contending, “use as many subjects as you can get and you can afford” (p. 40).

Second, general descriptive statistics have been to provide a characterization of the respondents of each institution and the aggregate sample. Specifically, statistical summaries with frequencies and percentage values were performed on all nine demographic variables.

Specific to the questionnaires, arithmetic means, percentage values, standard deviations, and standard errors were calculated for total climate score, total commitment score, and each of the questionnaire sub-scale scores. Questionnaire findings were examined and compared according to employee classification (i.e., the administrators, faculty, and staff), institution, and aggregate sample.

A fourth set of statistical procedures was conducted to compare the four participating institutions. The questionnaire means of each school were analyzed using one-way ANOVAs (F) in order to assess statistical compatibility for aggregating the data. Based upon the findings, a post-hoc analysis was conducted using the Tukey to make pairwise comparisons while maintaining the pre-established error rate.

Subsequently, the data was analyzed to address the three research questions using frequency distribution analysis and the Pearson Product Moment Correlation (r) to assess the relationship between the predictor and criterion variables; PACE and OCQ total scores and each sub-scale score. In order to fine tune significant correlations, multiple regression was performed to learn about the relationship between each of the nine demographic variables and the total and subscale scores. Forward stepwise regression was used to assess the independent contribution of each of the predictor variables after controlling for the shared variance. Tabachnick and Fidell (1989) support the use of

discreet independent variables with continuous dependent variables. The first step of the multiple regression analysis included eight of the nine demographic variables (employment status [full-or part-time], payment method [salary or hourly], ethnicity, age, gender, education, years of higher education experience, and years of organizational experience—predictor variables), while employee classification (i.e., administrators, faculty, and staff—predictor variable) was on the second step. All of these variables were analyzed with organizational climate scores (i.e., criterion variable—total score, institutional structure, supervisory relationship, teamwork, and student focus), and organizational commitment scores (i.e., criterion variables—total score, affective, normative, continuance stepwise regression procedures were conducted for the total commitment score and each of the three commitment types. Statistical variance yield by the stepwise regression procedures, required a follow-up test to assess the specific variance between the three employee classification groups using organizational climate and organizational commitment as dependent variables. Accordingly, a one-way multivariate analysis of variance (MANOVA) was run, a technique to study the significance of differences among multiple variables with a single categorical variable. As a follow-up to those findings, the Bonferroni method was used to control for Type I establishing the error level at .025.

Ethical Considerations

Ethical considerations are crucial in any study involving human subjects. To ensure ethical soundness, several safeguards were employed to protect the study's

participants and respondents. In accordance with Capella University's research requirements, application was made to Capella University's Internal Review Board (IRB) in order to obtain permission to conduct the study as outlined. Consistent with the American Psychological Association's Ethical Standards (APA, 2002) for research, the following ethical practices were implemented. First, the research objectives were presented to inform participants of the nature of the research. Second, no deception was used in the study. Third, privacy and confidentiality were ensured by not requesting names and by protecting the data. Finally, accuracy was maintained through rigor and moral reasoning.

Data was collected in aggregate form from each institution. A report highlighting findings was e-mailed to the appropriate school representative following completion of the study. Each report only identified the data associated with its institution. No other participating institution was identified in order to protect the institution's privacy and confidentiality. Data was stored on the researcher's computer but access was restricted with dual-password protection. In order to avoid the consequences of the data being contaminated it was backed-up on a server and two flash drives.

Summary

The purpose of this study was to investigate the relationship between organizational climate and organizational commitment in Christian higher education. This chapter outlined this study's research design and rationale. Study participants and procedures were described. Ethical considerations were addressed to ensure participant

safety and well-being. The chapter also reviewed the data collection instruments that were chosen to gather participant perceptions of climate and their relevant commitment to their institution. The hypotheses, data collection methodology, and the procedures for analyzing the data were also presented.

CHAPTER 4. DATA COLLECTION AND ANALYSIS

This study utilized a survey to assess Christian higher education employee perceptions of their organizational climate and organizational commitment. For the purposes of this present study, the respondents are employees from four evangelical Christian colleges and universities throughout various parts of the United States. Employees were accessed through each school's willingness to participate in the survey. As an incentive for participation in the study, each school was promised the results of their institution in comparison with the other schools. Anonymity of each school was maintained.

All employees were encouraged to take the survey without any concern of consequence for not doing so. No specific sampling or randomization technique was employed. The data is analyzed based solely upon the returned and useable surveys.

Specifically, the survey consisted of two standardized surveys: the Personal Assessment of College Environment (PACE; NILIE, 2005) and the Organizational Commitment Questionnaire (OCQ; Meyer & Allen, 1995) along with nine demographic questions. The objective of this chapter is to present the results and analysis obtained from the survey. The data was analyzed for its relevance to the central research question: "what is the relationship between organizational climate and commitment perceptions of Christian college and university employees?" Three research questions that are

extensions of the central question were presented in Chapter 3 along with their corollary hypotheses. This chapter will describe the overall findings in terms of institutional return rates, aggregate and individual school respondent demographics, statistical comparison of the four participating institutions, measures, and the research questions.

Overview of Respondent Demographic Variables

In this section, response rates to the survey will be presented. Respondent demographic variables will be described in aggregate and by institution. Data will also be categorized according to employee classification (i.e., administrators, faculty, and staff).

Survey Return Rates

Four Christian universities participated in the study. Census data of all four schools indicates that there were 2076 potential respondents. Table C1 depicts the return rates by School based upon employee classification. A decision was made to exclude those survey responses that had incomplete scores on either the PACE or OCQ or did not report their employee classification. This process removed 14 returns from the pool.

Table C1 shows a wide discrepancy in return rates of schools. The best response rate, however, came from School D with 90.0% returned. In contrast, the return rate for School A represented only 44.0%. In two of the schools, the administrators returned the most surveys ranging from 84.0% for School A and 100% for School D. Schools B and C, however, showed the best return rates for the faculty (64.0% and 69.0%).

Table C2 presents the return rates by the total sample based upon employee classification. According to Table C2, from a census of 2076 employees, 957 ($N = 957$) employees from four different Christian higher educational institutions returned usable data representing 46.0% of the total potential respondents. Aggregate return rate results by employee classification show 76.7% of the Administrators, 47.4% of the Faculty, and 43.2% of the Staff. Findings indicate that return rates of administrators represented the greatest proportion of potential administrator respondents. The high response rate of the administrators might be indicative of their strong interest to understand their campus environment and employee commitment.

Aggregate Demographic Variables

Since the nature of the research question involves organizational climate and organizational commitment, the unit of analysis is the organization-level as a whole rather than the individual-level. It is still important, however, to have an understanding of the respondents' basic demographic variables.

Table C3 shows the aggregate and institutional respondent demographic variables. Demographic information that was collected is as follows: (a) employee classification (i.e., administrator, faculty, or staff); (b) employment status (i.e., full-time or part-time); (c) method of payment (i.e., salaried or hourly); (d) gender (i.e., male or female); (e) age (i.e., less than 20 years old, 21 to 30 years old, 31 to 40 years old, 41 to 50 years old, or 51 years or more); (f) ethnicity (i.e., Caucasian, African-American, Hispanic, Asian or Pacific Islander, or other); (g) years of experience in higher education (i.e., less than 1

year, 1 to 4 years, 5 to 9 years, 10 to 19 years, or 20 years or more); (h) years of employment with current institution (i.e., less than 1 year, 1 to 2 years, 3 to 5 years, 6-10 years, or more than 11 years); and (i) highest level of educational achievement (i.e., high school or less, trade school/associate degrees, bachelor degree, master degree, or doctoral degree).

Overall, 89 (9.3%) participants reported their employment classification as administration, 222 (23.2%) reported their classification as faculty, and 646 (67.5%) identified themselves as being a member of staff. Of the 957 respondents, 907 (94.9%) were full-time employees, 48 (5.0%) participants were part time, and 1 (0.1%) did not indicate their work status. Regarding pay, 635 (66.4%) participants were salaried, 320 (33.4%) were paid hourly, and 2 (0.2%) did not report their payment status. In regards to age, participants reported the following 14 (1.5%) were 20 years old or younger, 324 (33.9%) were between the ages of 21 to 30 years old, 154 (16.1%) reported being between the ages of 31 to 40, 207 (21.6%) were between the ages of 41 to 50 years old, and 258 (27.0%) were over the age of 51 years. While the sample was nearly divided based on gender, males outnumber females 500 (52.2%) participants to 455 (47.5%) participants. Two (0.2%) respondents did not indicate their gender. Ethnically, the sample was predominantly Caucasian, 862 (90.1%), followed by 31 (3.2%) African-American, 23 (2.4%) other, 21 (2.2%) Hispanic, 17 (1.8%) Asian or Pacific Islander, and 3 (0.3%) did not indicate their ethnicity.

Participants also reported on how many years they have been working in higher education: 214 (22.4%) reported 1 year or less, 322 (33.6%) indicated 1 to 4 years, 162

(16.9%) indicated 5 to 9 years, 140 (14.6%) indicated 10 to 19 years, 114 (11.9%) reported 20 years or more and 5 (0.5%) did not answer that question. Additionally, the participants reported on their years of service to the organization: 235 (24.6%) served less than 1 year, 225 (23.5%) served 1 to 2 years, 198 (20.7%) served 3 to 5 years, 120 (12.5%) served 6 to 10 years, 178 (18.6%) served 11 or more years, and 1 (0.1%) failed to respond.

Unsurprisingly, respondents from the higher education institutions were well educated. Only 133 (13.9%) reported having a High School diploma/GED or less, 125 (13.1%) had a Trade School Certification or Associates degree, 340 (35.5%) were college graduates, 212 (22.2%) reported earning a Masters degree, 145 (15.2%) reported having a doctorate or terminal degree, and 2 (0.2%) did not indicate their level of educational achievement.

In sum, the majority of the overall sample was Caucasian (90.3%), full-time (94.8%), staff (67.5%) and were paid on a salary basis (66.4%). Interestingly, the largest number of the respondents were between the ages of 20 to 30 (33.9%), but the second highest (27%) were over the age of 51. The overall sample was nearly divided on gender, but there were more male respondents (52.2%). The largest percentage of the respondents was college graduates (35.5%), who had worked in higher education 1 to 4 years (33.6%). The sample represents primarily employees who do not have extended years of service with their employer; most of the respondents (68.8%) reported being with their institutions 5 years or less.

Institutional Demographic Variables

Table C3 also provides demographic data by school, represented as “School A,” School B,” School C,” and “School D.” By far, School A was the largest representing 678 of the total respondents. School B had 146 participants, School C 60 participants, and 73 participants from School D. Given the number of respondents from Schools A, the overall results are likely highly representative of their employee census.

School A

As depicted in Table C3, of the 678 respondents from School A 49 (7.2%) reported their employment status as administrators. The majority of School A’s respondents were staff 504 (74.3%) followed by 125 (18.4%) faculty members. The majority of participants (664, 97.9%) were full-time employees, 12 (1.8%) were part-time, and 1 (0.1%) did not indicate their work status. In regards to pay, 447 (65.9%) were salaried, 229 (33.8%) were paid hourly, and 2 (0.2%) did not indicate their pay. Of the respondents, 361 (53.2%) were male and 318 (46.5%) were female, and 2 (0.2%) did not indicate their gender. Regarding age, participants reported the following: 14 (2.1%) were 20 years old or younger, 274 (40.4%) were between the ages of 21-30 years old, 99 (14.6%) reported being between the ages of 31-40, 130 (19.2%) were between the ages of 41-50, and 161 (23.7%) were over the age of 51 years. The preponderance of employees from School A were Caucasian (595, 87.8%), followed by 31 (4.6%) who identified themselves as African-American, 20 (2.9%) other, 13 (1.9%) Hispanic, 16 (2.4%) Asian or Pacific Islander, and 3 (0.4%) did not indicate their ethnicity. In terms of experience

working in higher education, 180 (26.5%) reported 1 year or less, 240 (35.4%) indicated 3 to 5 years, 108 (15.9%) reported 5 to 9 years, 73 (10.8%) indicated 10 to 19 years, 72 (10.6%) reported 20 years or more, and 5 (0.7%) did not respond. The number of years respondents were employed by School A indicated that 192 (28.3%) served less than 1 year, 182 (26.8%) served 1 to 2 years, 138 (20.4%) served 3 to 5 years, 69 (10.2%) served 6 to 10 years, 96 (14.2%) served 11 or more years, and 1 (0.1%) failed to respond. Finally, participants were asked to report their highest level of education obtained, 102 (15.0%) reported high school/GED or less, 97 (14.3%) reported completing trade school or an Associate's degree, 255 (37.6%) reported having a Bachelor's degree, 131 (19.3%) reported earning a Master's degree, 91 (13.4%) reported having a doctoral degree, and 2 (0.3%) did not indicate their education level.

In sum, School A respondents were primarily full-time (97.9%), staff members (74.3%) who had been employed 2 years or less (55.1%). Interestingly, 61.9% were employed in higher education less than 5 years. The sample was predominantly Caucasian (90.3%) and male (53.2%). The largest number of respondents was educated with either an Associates degree or trade school education (37.6%).

School B

Table C3 also provides the demographic data obtained from School B respondents. Of the 146 respondents from School B, 19 (13.0%) participants reported their employment classification as administration, 52 (35.6%) reported their classification as faculty, and 75 (51.4%) identified themselves as being a member of staff. In this

sample, 134 (91.8%) of the respondents reported full-time employment and only 12 (8.2%) participants were part-time. Regarding pay, 108 (74.0%) participants were salaried whereas 38 (26.0%) were paid hourly. The age of School B respondents was quite diverse, 22 (15.1%) respondents were between the ages of 21-30 years old, 32 (21.9%) reported being between the ages of 31-40 years old, 39 (26.7%) were between the ages of 41-50 years old, and 53 (36.3%) were over the age of 51 years. In contrast to the overall sample, most of School B respondents were female 83 (56.8%) with 63 (43.2%) males responding. Only two ethnic groups were represented for School B: Caucasian 142 (97.3%) and contained 4 (2.7%) Hispanics. The participants next reported on how many years they have been in higher education, 11 (7.5%) reported 1 year or less, 40 (27.4%) indicated 1 to 4 years, 33 (22.6%) reported 5 to 9 years, 39 (26.7%) indicated 10-19 years, and 23 (15.8%) reported 20 years. Additionally, School B respondents indicated their years of service to the organization 14 (9.6%) served less than 1 year, 22 (15.1%) served 1 to 2 years, 30 (20.5%) served 3 to 5 years, 31 (21.2%) served 6 to 10 years, and 49 (33.6%) served 11 or more years. Finally, School B participants were asked to report their highest level of education obtained, 13 (8.9%) reported high school/GED or less, 15 (10.3%) reported completing trade school or an associate's degree, 42 (28.8%) reported having a bachelor's degree, 36 (24.7%) reported earning a master's degree, and 40 (27.4%) reported having a doctorate.

Overall, the respondents from School B were predominantly Caucasian (97.3%), female (56.8%), full-time (91.8%), salaried (74.0%), and classified as staff (51.4%). Of the total School B respondents, 34.9% reported working in higher education less than 4

years. In contrast with School A that had the higher percentage of newer employees, the largest percentage of School B respondents worked at their own institutions for 11 years or more (33.6%). While the greatest percentage of the School B sample was college graduates (28.8%), an almost equal number of respondents had doctoral degrees (27.4%).

School C

Table C3 provides the demographic data for School C. Of the 60 respondents, 5 (8.3%) participants reported their employment classification as administration, 24 (40.0%) reported their classification as faculty, and 31 (51.7%) identified themselves as being a member of staff. Respondents were primarily full-time 54 (90.0%) and 6 (10.0%) participants were part-time. Regarding pay, 36 (60.0%) participants were salaried and 24 (40.0%) were paid hourly. The age of School C participants was predominantly older; only 6 (10.0%) were between the ages of 21 to 30 years old, 11 (18.3%) reported being between the ages of 31 to 40, 20 (33.3%) were between the ages of 41 to 50 of age, and 23 (38.3%) were over the age of 51 years. Based on gender, 32 (53.3%) of School C participants were male and 28 (46.7%) were female. The sample was predominantly Caucasian 56 (93.3%), followed by 2 (3.3%) Hispanic, 1 (1.7%) Asian or Pacific Islander, and 1 (1.7%) respondent who was classified as Other. School C participants next reported on how many years they have been in higher education, 1 (1.7%) reported 1 year or less, 24 (40.0%) indicated 1 to 4 years, 7 (11.7%) reported 5 to 9 years, 15 (25.0%) indicated 10 to 19 years, and 13 (21.7%) reported 20 years. Additionally, the subjects indicated their years of service to the organization 3 (5.0%) served less than 1

year, 7 (11.7%) served 1 to 2 years, 19 (31.7%) served 3 to 5 years, 10 (16.7%) served 6 to 10 years, and 21 (35.0%) served 11 or more years. Finally, participants were asked to report their highest level of education obtained, 11 (18.3%) reported high school/GED or less, 5 (8.3%) reported completing trade school or an associate's degree, 19 (31.7%) reported having a bachelor's degree, 22 (36.7%) reported earning a master's degree, and 3 (5.0%) reported having a doctoral degree.

Overall, School C respondents were male (53.3%), Caucasian (90.0%), salaried (60.0%), full-time (90.0%), staff (51.7%). Thirty-five percent had served their organization 11 or more years and 40.0% indicated having 1 to 4 years working in higher education. The largest percentage of School C participants reported having a master's degree (36.7%).

School D

Table C3 provides the demographic data of School D. Of the 73 respondents from School D, 16 (21.9%) participants reported their employment classification as administration, 21 (28.8%) reported their classification as faculty, and 36 (49.3%) identified themselves as being a member of staff. The majority of respondents were full-time employees 55 (75.3%) and 18 (24.7%) participants were part-time. Regarding pay, 44 (60.3%) participants were salaried and 29 (39.7%) were paid hourly. In regards to age, participants reported the following: 22 (30.1%) were between the ages of 21 to 30 years old, 12 (16.4%) reported being between the ages of 31 to 40, 18 (24.7%) were between the ages of 41 to 50 years old and 21 (28.8%) were over the age of 51 years. The gender

of School D respondents was strongly male, 44 (60.3%) of the participants reported being male whereas only 29 (39.7%) were female. The sample was predominantly Caucasian 69 (94.5%), followed by 2 (2.7%) Hispanic, and 2 (2.7%) classified themselves as other. The participants next reported on how many years they have been in higher education, 22 (30.1%) reported 1 year or less, 18 (24.7%) indicated 1 to 4 years, 14 (19.2%) reported 5 to 9 years, 13 (17.8%) indicated 10 to 19 years, and 6 (8.2%) reported 20 years. Additionally, the subjects indicated their years of service to the organization 26 (35.6%) served less than 1 year, 14 (19.2%) served 1 to 2 years, 11 (15.1%) served 3 to 5 years, 10 (13.7%) served 6 to 10 years, and 12 (16.4%) served 11 or more years. Finally, participants were asked to report their highest level of education obtained, 7 (9.6%) reported high school/GED or less, 8 (11.0%) reported completing trade school or an associate's degree, 24 (32.9%) reported having a bachelor's degree, 23 (31.5%) reported earning a master's degree, and 11 (15.1%) reported having earned their doctorates.

As a whole, School D respondents were primarily male (60.3%), salaried (60.3%), full-time (75.3%) and Caucasians (94.5%). The largest percentage of School D respondents held bachelor degrees (32.9%) and were young (30.1%), between the ages of 21 to 30 years old. School D participants were more likely to be working in higher education less than 1 year (30.1%) and had served their organization less than 1 year (35.6%).

Statistical Comparison of Schools

This section compares the four schools on the climate and commitment measures. A series of one-way ANOVAs were conducted using each climate subscales and each commitment subscale including the total scores of both measures as the independent variables. Table C4 provides the comparisons of the schools on organizational climate factors and Table C5 presents the analysis findings of the four schools on commitment types.

Comparisons of Schools on Organizational Climate

A one-way ANOVA was conducted to determine if individual schools (A, B, C, and D) differed on the institutional structure subscale of the organization climate scale. The ANOVA revealed a significant difference between the four groups, $F(3, 951) = 14.13, p < .001, \eta^2 = .04$. Given the significant finding, a post hoc analysis was performed using the Tukey method since the groups were unequal. The Tukey is designed to make all pairwise comparisons while maintaining the pre-established error rate. The Tukey's post hoc analysis showed a significant difference between School C and the three other schools. School C showed lower means on the institutional structure subscale in comparison to the other three schools. Table C4 presents the means and standard deviations for the four schools. Partial eta squared indicates that the school explains 4% of the variance in the dependent variable.

Next, a one-way ANOVA was conducted to determine if individual schools (A, B, C, and D) differed on supervisory relationship subscale of the organization climate

scale. The ANOVA revealed a significant difference between the four groups, $F(3, 951) = 7.25, p < .001, \eta^2 = .02$. Tukey's post hoc analysis showed a significant difference between Schools C and A and D. School C showed lower means on the supervisory relationship subscale in comparison to A and B. Additionally, A scored lower than D on this subscale. Table C4 presents the means and standard deviations for the four schools. Partial eta squared indicates that the school explains 2% of the variance in the dependent variable.

A one-way ANOVA was conducted to determine if individual schools (A, B, C, and D) differed on the teamwork subscale of the organization climate scale. The ANOVA revealed a significant difference between the four groups, $F(3, 950) = 5.87, p = .001, \eta^2 = .02$. Tukey's post hoc analysis showed a significant difference between Schools A and B and C. School A showed higher means on the teamwork subscale in comparison to the Schools B and C. Additionally, School B scored lower than School D on this subscale. Finally, School C reported lower means than School D. Table C4 presents the means and standard deviations for the four schools. Partial eta squared indicates that the school explains 2% of the variance in the dependent variable.

A one-way ANOVA was also conducted to determine if individual schools (A, B, C, and D) differed on the student focus subscale of the organization climate scale. The ANOVA revealed a significant difference between the four groups, $F(3, 949) = 27.03, p < .001, \eta^2 = .08$. Tukey's post hoc analysis showed significant differences between all the schools. Table C4 presents the means and standard deviations for the four schools. Partial

eta squared indicates that the school explains 8% of the variance in the dependent variable.

Finally, a one-way ANOVA was conducted to determine if individual schools (A, B, C, and D) differed on overall organization climate scale. The ANOVA revealed a significant difference between the four groups, $F(3, 943) = 14.24, p < .001, \eta^2 = .04$. Tukey's post hoc analysis showed a significant difference between School C and the three other schools. School C showed lower means on overall organizational climate scale in comparison to the other three schools. Additionally, School B scored lower than School D on this scale. Table C4 presents the means and standard deviations for the four schools. Partial eta squared indicates that the school explains 4% of the variance in the dependent variable.

Comparison of Schools on Organizational Commitment

One-way ANOVAs for organizational commitment according to school are depicted in Table C5. A one-way ANOVA was conducted to determine if individual schools (A, B, C, and D) differed on the continuance subscale of the organizational commitment scale. The ANOVA revealed a significant difference between the four groups, $F(3, 948) = 5.88, p = .001, \eta^2 = .02$. Tukey's post hoc analysis showed a significant difference between Schools A and B and D. School A showed lower means on the continuance subscale in comparison to the Schools A and D. Table C5 presents the means and standard deviations for the four schools. Partial eta squared indicates that the school explains 2% of the variance in the dependent variable.

Next, a one-way ANOVA was conducted to determine if individual schools (A, B, C, and D) differed on the normative subscale of the organizational commitment scale. The ANOVA revealed a significant difference between the four groups, $F(3, 950) = 37.26, p < .001, \eta^2 = .10$. Tukey's post hoc analysis showed a significant difference between School A and the three other schools. School A showed higher means on the normative subscale in comparison to the other schools. Table C5 presents the means and standard deviations for the four schools. The partial eta squared indicates that the school explains 11% of the variance in the dependent variable.

A one-way ANOVA was conducted to determine if individual schools (A, B, C, and D) differed on the affective subscale of the organizational commitment scale. The ANOVA revealed a significant difference between the four groups, $F(3, 950) = 118.02, p < .001, \eta^2 = .27$. Tukey's post hoc analysis showed a significant difference between School A and the three other schools. School A showed higher means on the affective subscale in comparison to the other schools. Additionally, for School D the mean was significantly higher than Schools B and C. Table C5 presents the means and standard deviations for the four schools. The partial eta squared indicates that the school explains 27% of the variance in the dependent variable.

Continuing with the comparison of schools on organizational commitment, a one-way ANOVA was conducted to determine if individual schools (A, B, C, and D) differed on the overall organizational commitment scale. The ANOVA revealed a significant difference between the four groups, $F(3, 948) = 45.90, p < .001, \eta^2 = .13$. Tukey's post hoc analysis showed a significant difference between School A and the three other

schools. School A showed higher means on the overall organizational commitment in comparison to the other schools. Additionally, for School D the mean was significantly higher than for School C. Table C5 presents the means and standard deviations for the four schools. The partial eta squared indicates that the school explains 13% of the variance in the dependent variable.

In sum, a series of one-way ANOVAs revealed the Schools A, B, C, and D are not equivalent on the measures of organizational climate and organizational commitment. Regarding climate perceptions, School C showed lower means on institutional structure, supervisory relationship, and total climate score in comparison to the other three schools. School A viewed their teamwork as slightly worse than the other schools. In short, employee perceptions of their climate at School C are generally more favorable than at the other schools. On commitment, School A showed more continuance commitment than schools B and D. In contrast, however, School A reported less normative commitment, less affective commitment, and less overall commitment than the 3 other schools. That is, employees at School A report that they remain with their institution because they need to do rather than out of obligation or loyalty. Of note, variances ranged from 2% to 27%, with most of the variances under 8%. For organizational climate, variances are ranked from largest to smallest as follows: 8% (student focus), 4% (climate total score), 4% (institutional structure), 2% (supervisory relationship), and 2% (teamwork). Specifically, variances for commitment showed the greatest variability among the schools and are ranked from largest to smallest as follows: 27% (affective commitment), 13% (commitment total score), 11% (normative commitment), 2%

(continuance). Thus, while the schools were statistically different, the maximum difference was relatively small for all climate factors and commitment types.

Description of the Questionnaire Findings

This section will describe the findings of the PACE (NILIE, 2005) and OCQ (Meyer & Allen, 1997). Tables C6 and C7 contain the data obtained from each questionnaire will be presented based upon aggregate, school data, and employee classification.

Organizational Climate Questionnaire Findings

Aggregate means scores of the PACE and its subscales are depicted in Tables C6 (comparison of schools) and 7 (comparison of employee classification). Responses to all PACE questions were made on a 5-point Likert scale, ranging from “1” which indicates *Very Satisfied* to a value of “5” which indicates *Very Dissatisfied*. In other words, lower scores reflect greater employee satisfaction with each particular climate factor (i.e., institutional structure, supervisory relationship, teamwork, and student focus) and overall climate.

Table C6 depicts the aggregate mean scores according to each school. For all schools, climate factors ranked as follows: teamwork (1.99; $\sigma = .72$), student focus (2.13; $\sigma = .59$), supervisory relationship (2.15; $\sigma = .73$), and institutional structure (2.49; $\sigma = .74$).

Individual school perceptions of organizational climate are shown in Table C6. School C had the highest overall climate mean (1.81; $\sigma = .42$), whereas the lowest was found to be School D (2.43; $\sigma = .71$). Concerning institutional structure, School C mean rated slightly better (1.90; $\sigma = .57$) than School D (2.60; $\sigma = .83$). For the climate factor of supervisory relationship, the mean for School C was the most favorable (1.83; $\sigma = .51$) and School D's the least favorable (2.60; $\sigma = .79$). School C's mean for teamwork was also the best (1.78; $\sigma = .66$) and School D slightly less favorable (2.11; $\sigma = .74$). Finally, School C's mean was also the lowest for the climate factor of student focus (1.67; $\sigma = .40$) whereas School D's mean was the highest of the four schools (2.40; $\sigma = .76$).

Climate perceptions based upon employee classification are shown in Table C7. Concerning perception of climate, administrator mean index scores for the four dimensions varied from a low of 1.70 ($\sigma = .64$) for teamwork to a high of 2.33 ($\sigma = .77$) for institutional structure. Administrator perception of the climate factors ranked as follows: teamwork (1.70; $\sigma = .64$), supervisory relationship (1.98; $\sigma = .76$), student focus (2.02; $\sigma = .64$), and institutional structure (2.33; $\sigma = .77$). Overall, administrators appear to be satisfied with their organizational climate (2.06; $\sigma = .64$). Interestingly, however, they were most dissatisfied—although still satisfied—with institutional structure, the very part of the organizational climate to which they are most central. Likewise, faculty (2.18; $\sigma = .59$) and staff (2.27; $\sigma = .62$) were also satisfied with their overall organizational climate. For faculty, the mean index scores for the four factors ranged from a low of 2.00 ($\sigma = .73$) for teamwork to a high of 2.44 ($\sigma = .75$) for institutional structure. Faculty perceptions of the climate factors ranked as follows: teamwork (2.00; $\sigma = .73$), student

focus (2.02; $\sigma = .53$), supervisory relationship (2.17; $\sigma = .73$), and institutional structure (2.44; $\sigma = .75$). Staff mean index scores for the four factors ranged from a low of 2.02 for teamwork ($\sigma = .73$) to a high of 2.53 ($\sigma = .74$) for institutional structure. Staff perceptions of the climate factors ranked as follows: teamwork (2.02; $\sigma = .73$), student focus (2.17; $\sigma = .59$), supervisory relationship (2.17; $\sigma = .73$), institutional structure (2.53; $\sigma = .74$).

Based upon these results, respondents from four Christian higher education institutions perceived their organizational climate as good (2.23; $\sigma = .61$). Regardless of employee classifications, employees rated organizational teamwork in a more favorable fashion (1.99; $\sigma = .72$) and institutional structure (2.49; $\sigma = .74$) with the highest of means. In sum, employees from each of the four schools were satisfied with their organizational climate.

Organizational Commitment Questionnaire Findings

Responses to all Organizational Commitment Questionnaire (OCQ) questions were also made on a 5-point Likert scale, but inversely ranked from the PACE Likert scale. For the OCQ the actual Likert scale is coded as follows: 0 = *Strongly Disagree*, 1 = *Disagree*, 2 = *Neither Agree nor Disagree*, 3 = *Agree*, 4 = *Strongly Agree*. In order to properly conduct the statistical analyses necessary for this study, the Likert codes for the OCQ had to be reversed to make them compatible with the anchors of the PACE. Subsequently, the scoring scale used in these analyses was as follows: 1 = *Strongly Agree*, 2 = *Agree*, 3 = *Neither Agree nor Disagree*, 4 = *Disagree*, 5 = *Strongly Disagree*.

Table C6 depicts the aggregate mean index score for the OCQ scales based upon school and Table C7 according to employee classification. As noted in Table C6, overall commitment mean scores ranked as follows: School C (2.50; $\sigma = .50$), School A (2.62, $\sigma = .62$), School B (2.63; $\sigma = .56$), and then School D (2.85; $\sigma = .71$). School C reported slightly more commitment (2.50; $\sigma = .50$) than employees from the other three schools. In terms of affective commitment, mean scores ranked as follows: School C (1.95; $\sigma = .71$), School B (2.20; $\sigma = .80$), School D (2.55; $\sigma = .99$), and finally School A (3.37; $\sigma = .88$). Continuance commitment means were ranked: School A (2.95; $\sigma = .76$), School C (3.14; $\sigma = .65$), School B (3.14; $\sigma = .67$), and School D (3.25; $\sigma = .69$). School reports of normative commitment were ranked as follows: School C (2.40; $\sigma = .71$), School B (2.54; $\sigma = .81$), School D (2.75; $\sigma = .97$), and lastly School A (3.20; $\sigma = .87$). The aggregate total mean score for the OCQ was 3.02 ($\sigma = .69$). The mean scores for the three organizational commitment types ranked as follows: normative (3.01; $\sigma = .91$), continuance (3.02; $\sigma = .74$), and affective (3.05; $\sigma = 1.02$).

Table C7 shows the means and standard deviations for the OCQ scales based upon employee classification. According to employee classification the total commitment mean scores ranked as follows: administrators (2.99; $\sigma = .75$), staff (3.01; $\sigma = .69$), and faculty (3.07; $\sigma = .66$). Continuance type ranked as follows: staff (2.99; $\sigma = .75$), administrators (3.07; $\sigma = .73$), and faculty (3.10; $\sigma = .72$). The rank of normative commitment was as follows: administrator (2.96; $\sigma = 1.05$), staff (3.01; $\sigma = .89$), and faculty (3.04; $\sigma = .91$). Finally, affective commitment was ranked by employee classification as follows: administrators (2.91; $\sigma = 1.20$), staff (3.04; $\sigma = .95$), and faculty

(3.11; $\sigma = 1.12$). Based upon these results, respondents from four Christian higher education institutions rated their organizational commitment as relatively neutral in terms of all commitment types. The standard deviation of affective commitment ($\sigma = 1.02$) and normative ($\sigma = .91$) were elevated to the point that actual loyalty and obligatory commitments may be either plus or minus neutral.

Findings Related to the Research Questions

For this present study's purposes, the four schools that comprise the aggregate sample should be considered as sub-cultures of the overall organization of Christian higher education. While the schools statistically differ from each other on the climate and commitment measures, employees from the four participating schools represent the population of Christian higher education at large. In light of that, statistical analysis proceeded to examine the intended research questions.

Three hypotheses were tested in the current study. The results of tests of the hypotheses are presented separately. All hypotheses were tested using Pearson Product-Moment Correlation (PPMC), stepwise multiple regression analysis, MANOVA, an ANOVA, along with post hoc analyses when significance was noted in the preceding procedure. Prior to examining each hypothesis, an overview of the correlation coefficients is provided.

Correlations of Total Climate and Commitment Scores

A Pearson Product-Moment Correlation coefficient (r) was calculated on the aggregate data of total scores for both climate and commitment. In accordance with other correlational studies of climate and commitment (e.g., Chiang, 2001; Eisenberger et al., 2002; Eisenberger et al., 1990; Gormley, 2005; Grant, 2002; McMurry et al., 2004; Suliman, 2001), this analysis of Christian higher education also found a statistically significant correlation between employee perceptions of their organizational climate and their organizational commitment. In contrast to those previous studies, however, this present study found a negative correlation, which was also relatively weak ($-0.23, p < .001$).

Hypothesis 1

The first research question asked: What is the relationship between administrators' perception of organizational climate and their organizational commitment? The null hypothesis is that there is no statistically significant relationship between organizational climate and organizational commitment of Christian college and university administrators (no difference between the slope of the line and zero— $b = 0$). The hypothesis is that there is a statistically significant ($p < 0.01$) correlation between administrator perceptions of organizational climate as measured by the PACE and their commitment to the organization as measured by the OCQ.

A Pearson correlation coefficient was computed on the relationship between the PACE total and four factor (i.e., institutional structure, supervisory relationship,

teamwork, student focus) scores and OCQ total and the three type (i.e., affective, normative, continuance) scores based upon administrator perceptions. The correlation between total climate and commitment scores for administrators failed to produce a statistically significant correlation: $r(n = 89) = .02, p < .86$. For administrators, then, there is no statistically significant relationship between their perceptions of their institutional climate and their level of commitment to that organization.

Table C8 provides the correlational matrix for research question 1. As depicted in the table, administrators' perceptions of organizational climate produced five positive correlations. The highest positive correlation was between institutional structure and student focus $r(89) = .80, p < .001$. The mutual relationship between institutional structure and student focus seems to indicate that as administrators' report greater satisfaction with their overall structure, they report greater satisfaction with their focus on student needs. For administrators, there is a positive correlation between supervisory relationship and institutional structure $r(89) = .75, p < .001$. As dissatisfaction increases with supervisory relationship, dissatisfaction with institutional structure increases and vice versa. A third correlation was found between student focus and teamwork $r(89) = .72, p < .001$. Administrators seemed to report greater satisfaction with employee teamwork when they reported a focus on student needs. Similarly, as satisfaction with student focus increased, satisfaction with teamwork also increased. A positive correlation was also found between institutional structure and teamwork $r(89) = .69, p < .001$. As administrators perceive more satisfaction with their institutional structure they perceive greater satisfaction with teamwork among employees and vice versa. Finally, a positive

correlation was noted between student focus and supervisory relationship $r(89) = .64, p < .001$. As administrators report more satisfaction with student focus they also reported more satisfaction with their supervisory relationship and vice versa.

There was one positive correlation for organizational commitment, between normative and affective commitment $r(89) = .82, p < .001$. As administrators increase in their feelings of obligation to remain with their institution they also increase in their emotional bond to the organization and vice versa. Results of the correlational analysis failed to find any correlations between any of the climate factors and the commitment types. No correlation was found for total scores on climate and commitment as well. For administrators there is no relationship between their perceptions of organizational climate and their commitment to the organization supporting the null hypothesis. The research hypothesis for question one could not be accepted.

Hypothesis 2

The second research question asked: What is the relationship between faculty members' perception of organizational climate and their organizational commitment? The null hypothesis is that there is no statistically significant relationship between organizational climate and organizational commitment of Christian college and university faculty (no difference between the slope of the line and zero— $b = 0$). The hypothesis is that there is a statistically significant ($p < 0.01$) correlation between faculty perceptions of organizational climate as measured by the PACE their commitment to the organization as measured by the OCQ.

A Pearson correlation coefficient was computed on the relationship between the PACE total and the four factor (i.e., institutional structure, supervisory relationship, teamwork, student focus) scores and OCQ total and the three type (i.e., affective, normative, continuance) scores based upon faculty perceptions. The correlation between total climate and commitment scores for faculty failed to produce a statistically significant correlation: $r(216) = -.01, p < .88$. In other words, for faculty there is no statistically significant relationship between their perceptions of their institutional climate and their level of commitment to that organization.

Table C9 displays the correlational matrix for research question 2. As in the case of administrators, results of faculty responses found positive significant correlations for all climate factors and one commitment factor. The strongest positive correlation was between supervisory relationship and teamwork $r(222) = .74, p < .001$. As faculty satisfaction with supervisory relationship increases they also reported greater satisfaction with teamwork and vice versa. Faculty responses of their organization's student focus and their institutional structure were also significantly positively correlated, $r(222) = .73, p < .001$. Faculty satisfaction with supervisory relationship was also positively correlated with institutional structure, $r(222) = .72, p < .001$. Supervisory relationship and student focus were also significantly positively correlated for faculty, $r(222) = .59, p < .001$. Teamwork and institutional structure were also significantly positively correlated, $r(222) = .57, p < .001$. Finally, a positive correlation was found for organizational climate factors teamwork and student focus, $r(222) = .51, p < .001$.

As was true for administrators, faculty responses also evidenced a significant positive correlation between normative and affective commitment, $r(222) = .78, p < .001$. In other words, as faculty members' sense of obligation to remain with their institution increases they also increase in their emotional bond to the organization and vice versa. As with administrator responses, faculty correlation results failed to find any relationship between any of the four climate factors and any of the three commitment types. No correlation was found between total climate and commitment scores as well. In sum, for faculty members there is no relationship between their perceptions of organizational climate and their commitment to the organization supporting the null hypothesis. Subsequently, the research hypothesis for question 2 could not be accepted based upon faculty responses.

Hypothesis 3

The third research question asked: What is the relationship between staff members' perception of organizational climate and their organizational commitment? The null hypothesis is that there is no statistically significant relationship between organizational climate and organizational commitment of Christian college and university staff (no difference between the slope of the line and zero— $b = 0$). The hypothesis is that there is a statistically significant ($p < 0.01$) correlation between staff perceptions of organizational climate as measured by the PACE and their commitment to the organization as measured by the OCQ.

A Pearson correlation coefficient was computed on the relationship between the PACE total and the four factor (i.e., institutional structure, supervisory relationship, teamwork, student focus) scores and OCQ total and the three type (i.e., affective, normative, continuance) scores based upon staff perceptions. The correlation between total organizational climate and commitment scores based upon staff perceptions produced a moderately statistically significant negative correlation: $r(634) = -.34, p < .001$. Hence, as staff satisfaction with climate increased their commitment subsequently decreased and vice versa.

Table C10 displays the correlational matrix for research question 3. In the overall return several significant positive and negative correlations were observed among staff responses. Statistically significant positive correlations were found between institutional structure and student focus $r(646) = .74, p < .001$; institutional structure and supervisory relationship, $r(646) = .71, p < .001$; and between institutional structure and teamwork $r(646) = .67, p < .001$. Three negative statistically significant correlations were found between institutional structure and the three commitment types. Institutional structure was negatively correlated with continuance, $r(646) = -.22, p < .001$; institutional structure and normative commitment were negatively correlated, $r(646) = -.32, p < .001$; and institutional structure and affective commitment were also negatively correlated, $r(n = 646) = -.24, p < .001$. For staff responses, as satisfaction with institutional structure decreases, then continuance, normative, and affective commitment all increase and vice versa. The same negative correlations were found between the three types of organizational commitment and supervisory relationship. Statistically significant negative

correlations were found between supervisory relationship and continuance, $r(646) = -.11$, $p < .001$; between supervisory relationship and normative, $r(646) = -.30$, $p < .001$; and supervisory relationship and affective commitment, $r(646) = -.27$, $p < .001$. For staff responses, as satisfaction with supervisory relationship decreases, then continuance, normative, and affective commitment all increase and vice versa. Similarly, negative correlations were also found between the three types of organizational commitment and teamwork: continuance, $r(646) = -.13$, $p < .001$; normative, $r(646) = -.28$, $p < .001$; and affective, $r(646) = -.26$, $p < .001$. For staff responses, as they become more dissatisfied with teamwork, their continuance, normative, and affective commitment all increase and vice versa. Student focus demonstrated only two statistically significant negative correlations, with continuance, $r(646) = -.20$, $p < .001$ and with normative commitment, $r(646) = -.25$, $p < .001$. For staff responses, as they express more dissatisfaction with their institution's student focus, their continuance, normative, and affective commitment all increase and vice versa.

Statistically significant positive correlations were also found between supervisory relationship and teamwork, $r(646) = .82$, $p < .001$ and supervisory relationship and student focus, $r(646) = .56$, $p < .001$. Likewise, teamwork and student focus were both related, $r(646) = .52$, $p < .001$. Continuance commitment was also positively correlated with both normative, $r(646) = .40$, $p < .001$ and affective commitments, $r(646) = .16$, $p < .001$. Finally, normative and affective commitments were also positively correlated, $r(646) = .73$, $p < .001$.

Unlike the results found for administrators and faculty, a statistically significant correlation was found between total scores on the PACE and OCQ. Surprisingly, the correlation was negative; meaning as staff member satisfaction of climate increases, their commitment to the organization decreases and vice versa. Thus, in the case of staff members, the null hypothesis was also rejected. Even though a statistically significant correlation was found between staff perceptions of climate and their organizational commitment, the hypothesis predicted a positive rather than a negative correlation.

Organizational Climate and Organizational Commitment as Predictors

A step-wise multiple regression was conducted to predict overall organizational climate. On the first step of the analysis were all the demographic variables with the exception of classification and on the second step was the demographic variable of classification. According to Tabachnick and Fidell (1989), comparing independent discrete variables with dependent continuous variables is permissible. The model yielded three significant predictors of organizational climate: age, years of organizational service (i.e., tenure), and classification. The overall regression equation was significant, $R^2 = .03$, $F(3, 932) = 10.40$, $p < .001$. The three variables in the model accounted for a total of 3% variance in organizational climate. The multiple regression stepwise unstandardized and standardized beta weights for organizational climate are given in Table C11. The beta weight for age was negative meaning that as age increased organizational climate

dissatisfaction decreased and vice versa. Years of organizational service and classification of employee were positively associated with organizational climate.

A second step-wise multiple regression was conducted to predict overall organizational commitment. On the first step of the analysis were all the demographic variables with the exception of classification and on the second step was the demographic variable of classification. Subsequently, the model generated from the analysis yielded two significant predictors of organizational commitment: age and years of organizational service. The overall regression equation was significant, $R^2 = .02$, $F(2, 934) = 10.33$, $p < .001$. The two variables in the model accounted for a total of 2% variance in organizational commitment. The stepwise unstandardized and standardized beta weights for organizational commitment are given in Table C12. The beta weight for years of organizational service was negative. In other words, as tenure increased organizational commitment decreased and vice versa. In similar fashion to organizational climate, age was also found to be positively associated with organizational commitment; meaning that older employees were more likely to express greater levels of organizational commitment.

A one-way multivariate analysis of variance (i.e., MANOVA) was conducted to determine the effect of employee classification (i.e., administrator, faculty, and staff) on two dependent variables, organizational climate and organization commitment. The MANOVA means and standard deviations based upon employee classification are depicted in Tables C13 (climate) and C14 (commitment). Significant differences were found on the dependent measures but should be interpreted with caution because of the

small effect size, Wilks's $\lambda = .99$, $F(4, 1870) = 3.37$, $\eta^2 = .01$. As mentioned earlier the beta squared index was quite weak indicating that the independent variable only accounted for 1% of the variance in the dependent measures.

Since a level of significance was found through the MANOVA, analyses of variances (ANOVA) on each dependent variable were conducted as a follow-up test to the MANOVA. Using the Bonferroni method, to control for Type I error, each ANOVA was tested at the .025 level. The ANOVA on organizational climate was significant, $F(2, 936) = 5.72$, $p = .003$, $\eta^2 = .01$ while the ANOVA for organizational commitment was not significant, $F(2, 936) = .95$, $p = .39$, $\eta^2 = .002$.

In light of the significance, post hoc analyses to the univariate ANOVA for the recall scores consisted of conducting pairwise comparisons to find which employee classification level affected organizational commitment. Findings from the post hoc procedures revealed that administrators held a more favorable view of climate than staff, but no difference was found between administrators and faculty. No differences were noted between the three employee classifications for organizational commitment.

Summary

Returned survey findings of Christian college and university personnel from four evangelical schools were put forward. Analysis was performed on 957 usable surveys representing a 46.0% return rate.

A series of one-way ANOVAs indicates that the four schools represented distinct sub-cultures of the overall organizational under study, Christian higher education. School

C showed lower means on institutional structure, supervisory relationship, and total climate score in comparison to the other three schools indicating that their employees have a more favorable view of the climate. In contrast, School A employees were less committed to their institution than the other three schools. Variances, however, indicates that the degree of statistical difference is relatively small for both climate and commitment scales.

Results of these surveys indicate that there is a negatively statistically significant relationship between Christian higher education employee perceptions of organizational climate and organizational commitment. When analyzed according to employee classification, analyses did not find a correlation between organizational climate and organizational commitment for administrators and faculty, but a statistically significant negative correlation was found for staff. A stepwise multiple regression yielded age, years of organizational service, and employee classification as three significant predictors of organizational climate. The direction of the relationship between age and climate was negative. The same procedure for organizational commitment rendered age as a positive predictor and years of service as a negative predictor.

A MANOVA was conducted to determine the effect of employee classification on the two dependent variables, organizational climate and organization commitment. While significant differences were found on the dependent measures the small effect size merits caution in interpretation. The weak beta squared index indicates that the independent variable only accounted for 1% of the variance in the dependent measures. A follow-up ANOVA on the dependent measures found significance for organizational climate but not

for organizational commitment. Analysis also revealed that administrators had a more favorable view of their organizational climate than staff.

CHAPTER 5. RESULTS, CONCLUSIONS, AND RECOMMENDATIONS

This chapter advances the summary, conclusions, and recommendations from this present study. The chapter will contain a summary of the purpose of the study, as well as an overview of the results. Finally, the conclusions, recommendations, and suggestions for future research will be described.

Summary of Purpose

The research's center of attention was to examine the relationship between employee perceptions of organizational climate and organizational commitment in evangelical Christian higher education. While extant research contends that there is a dearth of research (Grant, 2002; McNabb & Sepic, 1995) that explains how organizational climate and organizational commitment constructs relate in educational institutions, research has neglected to examine Christian higher education environments.

Accordingly, this research study surveyed four evangelical Christian higher educational institutions from various parts of the United States using the Personal Assessment of College Environment (PACE; NILIE, 2005) questionnaire, the Organizational Commitment Questionnaire (OCQ; Meyer & Allen, 1997), and nine demographic questions. Survey responses were examined to understand evangelical Christian higher education employee perceptions of their college or university's climate

and their subsequent commitment to the school. Responses were also analyzed and compared according to whether an employee was classified as an administrator, faculty, or staff.

In keeping with the intended research purpose, the reader is reminded of the three relevant questions and concomitant hypotheses that guided this study:

1. What is the relationship between administrators' perception of organizational climate and their organizational commitment? The null hypothesis is that there is no statistically significant relationship between organizational climate and organizational commitment of Christian college and university administrators (no difference between the slope of the line and zero— $b = 0$). The hypothesis is that there is a statistically significant ($p < 0.01$) correlation between administrator perceptions of organizational climate as measured by the Personal Assessment of College Environment and their commitment to the organization as measured by the Organizational Commitment Questionnaire.
2. What is the relationship between faculty members' perception of organizational climate and their organizational commitment? The null hypothesis is that there is no statistically significant relationship between organizational climate and organizational commitment of Christian college and university faculty (no difference between the slope of the line and zero— $b = 0$). The hypothesis is that there is a statistically significant ($p < 0.01$) correlation between faculty perceptions of organizational climate as measured by the Personal Assessment of College Environment and their commitment to

the organization as measured by the Organizational Commitment Questionnaire.

3. What is the relationship between staff members' perception of organizational climate and their organizational commitment? The null hypothesis is that there is no statistically significant relationship between organizational climate and organizational commitment of Christian college and university staff (no difference between the slope of the line and zero— $b = 0$). The hypothesis is that there is a statistically significant ($p < 0.01$) correlation between staff perceptions of organizational climate as measured by the Personal Assessment of College Environment and their commitment to the organization as measured by the Organizational Commitment Questionnaire.

Overview of Results

The focus of this chapter is to discuss the conclusions, recommendations, and implications for future research in light of the results described in chapter four. Prior to this response, a brief summary of the research results that were presented in the preceding chapter will be reviewed. This chapter section will first describe the research participants (i.e., demographics) and then review the study findings.

Research Respondent Demographics

This study surveyed a population of 2076 employees across four evangelical Christian higher education institutions. From this population, 957 usable returned surveys

were analyzed yielding a return rate of 46.0%. Of the usable surveys, 89 (9.3%) were from administrators, 222 (23.0%) from faculty, and 646 (67.5%) of the surveys were from staff. The majority of the research respondents were Caucasian (90.3%), full-time (94.8%), staff (67.5%), paid on a salary basis (66.4%). Interestingly, most of the respondents were between the ages of 20 to 30 (33.9%), but the second highest (27%) were over the age of 51. The participants were nearly divided on gender, but there were slightly more male respondents (52.2%). The majority were primarily college graduates (35.5%), who had worked in higher education 1 to 4 years (33.6%). Institutionally, the participants were primarily employees with short organizational tenure; 68.8% reported being with their institutions 5 years or less.

Research Findings

Survey responses were statistically investigated both institutionally and aggregately. Institutionally each of the four schools was compared using one-way ANOVAs. Findings suggest that the four schools are statistically dissimilar; in other words, each of the schools represented a distinct organization entity. The purpose of the study, however, was not to investigate four separate school environments. Rather the purpose was to explore Christian higher education as an organizational entity. In this present analysis, the dissimilarity of the four participating schools should be regarded as sub-climates of Christian higher education.

The data was also analyzed in aggregate, using the Pearson product moment correlation, a stepwise regression, a MANOVA, an ANOVA, and post hoc analyses. The

first data analysis consisted of the correlation of the total climate score and four organizational climate factors with the total commitment score and the three types of organizational commitment. Results of the correlation on total scores of the climate and commitment measures yielded a statistically significant negative relationship for this population. When the data was analyzed based upon employee classification, finding any correlation between organizational climate and organizational commitment for administrators and faculty was unsuccessful. In concert with the total scores, however, a statistically significant negative correlation was also found for staff.

Two stepwise multiple regressions were used to assess whether any of the demographic variables predicted climate factor outcomes or commitment type outcomes. The findings of the stepwise analysis of all demographic variables with climate indicated that employee age, years of organizational service (i.e., tenure), and employee classification (i.e., administrator, faculty, or staff) statistically predicted organizational climate. The overall regression was significant, $R^2 = .03$, $F(3, 934) = 10.40$, $p < .001$. The three predictor variables in the model, however, only accounted for 3% variance in organizational climate. Whereas the beta weight for both employee classification and tenure was positive, the beta weight for age was negative. In other words, there is a positive reciprocal relationship between tenure and employee classification and climate, but a negative reciprocal relationship between age and climate. Regarding age, as age increased so did dissatisfaction with the organizational climate. Conversely, results also indicated that the greater the dissatisfaction with the institution's climate the older the employee.

The second stepwise multiple regression assessed all demographic variables with organizational commitment. The model yielded two significant predictors of organizational commitment: age and years of organizational service. The overall stepwise regression equation was significant, $R^2 = .02$, $F(2, 934) = 10.33$, $p < .001$. Again, a low variance was found; the two variables only accounted for 2% of the total variance in commitment. The beta weight for years of organizational service was negative; longer tenured employees reported less commitment. Whereas age resulted in a negative beta weight for organizational climate, a positive beta weight was found when analyzed against total commitment. It follows then, as employee age decreased and tenure increased organizational commitment decreased; accordingly, as commitment increased employee age increased and years of organizational service decreased. Older employees reported more commitment, but longer tenured employees reported less organizational commitment.

To determine the effect of employee classification on climate and commitment, a MANOVA was conducted. The data yield significant differences, but the small effect size merits caution in interpretation [Wilks's $\lambda = .99$, $F(4, 1870) = 3.37$, $\eta^2 = .01$]; the independent variable only accounted for 1% of the variance in the dependent measures. A follow-up ANOVA on the dependent measures found significance for organizational climate [$F(2, 936) = 5.72$, $p = .003$, $\eta^2 = .01$], but not for organizational commitment [$F(2, 936) = .95$, $p = .39$, $\eta^2 = .002$]. Post hoc pairwise comparisons using employee classification found that administrators had a more favorable view of their institutional

climate than staff members, while no differences were found with faculty or for organizational commitment.

Conclusions

This section will discuss conclusions that can be drawn from the results of this study. The presentation of the conclusions are organized into three sections: (a) those research conclusions that can be made from the lack of correlation between organizational climate and commitment, (b) the conclusions that can be made about organizational climate, (c) the conclusions about commitment, and (d) a summary of this section.

Conclusions on the Climate and Commitment Relationship

The belief that the concept of organizational climate describes and analyzes the quality of organizational life is widely accepted (e.g., Allen & Pilnick, 1973; Baker, 1992; Katz & Kahn, 1978; Likert, 1967; Litwin & Stringer, 1968; Miner, 1988; Moos, 1974; Poole, 1985; Schnake, 1983). In organizational studies, understanding organizational climate provides insight into the question, “What is it like to work here?” (Baker, 1992). One means of assessing the climate of an organization is to gauge why employees remain with the organization (Kahn, 1990; Steers, 1990).

Both organizational climate and organizational commitment of Christian higher education employees has been ignored in the organizational literature. Extant research has not contributed to understanding what it is like to work in a Christian higher

education environment or why employees maintain their employment with these institutions. To address this void in the literature, this study was conducted to begin scientific understanding into the environment of Christian higher educational organizations. Since some organizational climate research indicates discrepancies between perceptions of climate by employees at different levels of the organization (e.g., James & Jones, 1974; Moran & Volkwein, 1988; Putti et al., 1990), administrative, faculty, and staff perceptions were surveyed separately.

This particular research endeavor hypothesized that the climate of Christian higher education would correlate with employee commitment as a whole and for each of the three employee classifications. The findings from this present analysis would not only provide inquiry into this neglected organizational environment, but would also be meaningful for those stakeholders in Christian higher education institutions.

Existing research has found a statistically significant positive correlation between organizational climate and organizational commitment in a number of diverse work environments such as non-profit organizations (Grant, 2002), Veterans Medical Center (Welsh & LaVan, 1981), secondary schools (Turan, 1998), industries (McMurry et al., 2004; Suliman, 2001), and a nursing school (Gormley, 2005). Barring Turan's (1998) study, which failed to find a correlation between organizational climate and commitment in Turkish secondary schools, studies have overwhelmingly pointed to a relationship between the two constructs. Against the backdrop of previous research, this study further added to the preponderance of statistical significance between organizational climate and organizational commitment. Interestingly, however, this study of Christian higher

education employees found a statistically significant negative relationship between climate and commitment. Based upon these research findings, Christian higher education personnel perceptions of their organizational climate, as measured by the PACE (NILIE, 2005), is negatively associated with their expressed organizational commitment, as measured by the OCQ (Meyer & Allen, 1997). Put simply, the more satisfied Christian higher education employees are with their institutional climate, the less committed they are to the organization and vice versa.

When the data was analyzed according to employee classification, administrator and faculty perceptions of climate were also not related to their commitment. A deviant finding, however, was that staff perceptions of their school's climate were negatively associated with their commitment level. Since staff members represented nearly 67% of the total sample, it stands to reason that their perceptions strongly influenced the overall negative correlation.

In consideration of the ostensible anomalies of the overall and staff statistically significant negative correlations, several possible explanations are advanced. One straightforward explanation deals with the changing direction of the response scales from the PACE to the OCQ. To recall, the PACE uses a 5-point Likert scale with 1 representing *Very Satisfied* and 5 representing *Very Dissatisfied*. Upon completion of the PACE questions, respondents were informed that the order of the responses was different for the remaining 18 questions (i.e., OCQ). The OCQ used a reverse Likert scale, with 1 representing *Strongly Disagree* and 5 *Strongly Agree*. If respondents failed to note the difference in direction, the responses for the OCQ would have been backwards.

Moreover, perhaps staff members were less familiar with the taking of such research questionnaires and that they failed to change their response pattern when taking the OCQ. Given the fact that staff members represented about 67% of the sample the impact of this error would have been sufficient to skew the results. Prior to the statistical analysis, the order of the OCQ scaled responses had to be reversed in order to compare the two measures. In retrospect, it may have been prudent to have reversed the scale prior to administration so that the two measurement Likert scales would correspond to one another. The rationale behind not changing the order of one of the scales was to maintain the integrity of the instruments. The survey instructions did include bold and underlined warnings to the fact that the Likert scale was now in reverse order.

If indeed the questionnaires accurately recorded Christian higher education personnel responses, a second reason for the negative correlation may have been the by-product of sample size ($n = 957$). From a statistical perspective, a large sample may produce correlations where only microscopic ones or none exist (Harris, 1984). Likewise, the overall sample may have been skewed due to the fact that one of the schools was about 4.5 times larger than the other three schools. The statistical strength of this sub-climate would have dramatically impacted the overall findings.

Third, the unique nature of Christian higher education employees (Burtchaell, 1997; Fisher, 1989; Marsden, 1997, 1994) might also explain the negative correlation. In other words, for this population of higher education employees there truly is a negative relationship between their perceptions of their institutional climate and their organizational commitment. Though this explanation seems foreign to intuitive thought,

it is possible that employees of Christian higher education maintain employment for reasons other than those assessed by the OCQ (Meyer & Allen, 1997).

Fourth, this research may have failed to find true positive statistical significance between organizational climate and organizational commitment due to the change in the psychological contract of most United State employees (Rousseau, 2000). Employers and employees once enjoyed mutual loyalty, but economical changes have eroded employer commitment to its employees (Laabs, 1996; Rousseau, 1990, 1998, 2000, 2001, 2004; Schein, 1980). In turn, employees are more cautious in their own commitment (Rousseau, 2000). To the extent that the psychological contract is violated when employees perceive their job is insecure, workers are more likely to feel betrayed and less likely to commit. It is not surprisingly then, that more recent longitudinal studies suggest that organizational commitment has languished (Bentein et al., 2005; Lance et al., 2000). From his study of United States workers, Blau (2000) found that 20% of the workers reported changing jobs during a one-year period.

Moreover, the weakening of the psychological contract may also be due to a generational effect. Recent studies suggest that younger workers do not consider long-term job security as normative (Brannen, Lewis, Nilsen, & Smithson, 2000; Tulgan, 2000; Turnley & Feldman, 1999; Smithson & Lewis, 2001), and hold an average of 10.2 jobs from ages 18 to 38 (U.S Department of Labor, 2004). In lieu of the changing work world, MacNeil (1985) introduced the idea of relational-transactional contracts. Transactional contracts recognize that employers may not be able to provide job security, but can still provide employability (Sparrow, 2000). In other words, the concept of

organizational commitment may have been supplanted by a newer concept, called job commitment. Today's employees may be choosing to exchange longer hours and extra work for higher pay and career development (Rousseau & Wade-Benzoni, 1995) rather than for job security. In this present study, while 258(27.0%) of the respondents were 50 years of age or older, the majority of the sample 338 (35.4%) was less than 30 years of age. In light of the changes in psychological contract, younger employees are taught to emphasize their career development rather than employer loyalty (Arnold & Jackson, 1997; Blau, 2000; Hall, 1996; Hall & Mirvis, 1996; Houseman, 1996).

Finally, how employees are socialized into an organization might also bear upon their organizational commitment. Meyer and Allen (1997) describe two types of socialization that may influence commitment: investiture and divestiture. An investiture approach to socialization does not require that a new employee completely give up his or her former self in order to become a full-fledged member of the organization. In contrast, a divestiture approach attempts to have new employees "fall in line," suggesting that the organization is "elite," and that achieving membership should be viewed as a great privilege. Tacitly, however, such an approach might convey an unhealthy mistrust of outsiders and a condescending view of newcomers. According to Meyer and Allen, an investiture approach is more likely to result in greater feelings of commitment than a divestiture approach. Perhaps these Christian higher education institutions socialize their employees in ways that runs counter to a healthy organizational commitment.

In sum, this study found that Christian higher education employees' perceptions of their organizational climate, as measured by the PACE are negatively correlated to

their expressed levels of organizational commitment as measured by the OCQ. Though a clear understanding of this apparent deviant finding is beyond the scope of this research possible explanations include respondents failing to correctly apply the two different Likert scales, statistical sample size issues, the uniqueness of the population, or the changes in psychological contract of modern day workers.

Conclusions on Organizational Climate

Forehand and Gilmer (1964) contended that an organizational analysis of climate was possible by assessing the perceptions of its organizational members. Based upon that observation from the early literature on organizational climate, this study has attempted to understand the organizational climate of Christian higher education by assessing personnel perceptions.

Those who responded to the survey revealed that they were largely satisfied with all four organizational climate factors. PACE means can range from a minimum of 1.00 (*Very Satisfied*) to a maximum of 5.00 (*Very Dissatisfied*). Based upon previous studies, the PACE has generated normative data on over 11,000 employees from higher educational institutions (NILIE, 2005). The norms represent aggregate college employee responses and are not sorted by employees from various levels of the organization. The following are the mean norms in rank order from the most satisfied climate factor to the least satisfied climate factor: Institutional Structure (3.31; $\sigma = 0.87$), Overall Climate Score (3.57; $\sigma = 0.78$), Supervisory Relationship (3.62; $\sigma = 0.94$), Teamwork (3.67; $\sigma = 1.05$), and Student Focus (3.80, $\sigma = 0.82$). For all factors, then, normative means fall

within the neutral range (i.e., *Neither Agree or Disagree*) with standard deviations that could result in either satisfied or dissatisfied responses. In contrast to the normative data, means for this study were predominantly in the satisfied range, with Teamwork (the least satisfied factor in the normative data) being the most favorable factor (i.e., falling within the *Very Satisfied* range). Interestingly, each factor in this study is practically the reverse order from those in the normative data. Specifically, the mean of the total climate score of Christian higher education fell within the satisfactory range (2.23, $\sigma = 0.61$).

Additionally, each of the four factor means were within the satisfactory range and are arranged in descending order, the most satisfactory climate factor to the least (i.e., teamwork: 1.99, $\sigma = 0.72$; student focus: 2.13, $\sigma = 0.59$; supervisory relationship: 2.15, $\sigma = 0.73$; institutional structure: 2.49, $\sigma = 0.74$). The difference between each factor's mean and the ideal situation, represented by a score of 1.0 can be identified as a measure of the extent to which those in governance can work to improve their climates. Given the mean and the standard deviation of the institutional structure climate factor, in reality employee perceptions of institutional structure may actually fall within the neither satisfied nor dissatisfied range.

When the data is considered based upon employee classification, the degree of satisfaction between administrators (2.06, $\sigma = 0.64$), faculty (2.18, $\sigma = 0.59$), and staff (2.27, $\sigma = 0.62$) are similar. In contrast with other studies (e.g., Fouts, 2004; Manzo-Ramos, 1997) that found that staff members were the least satisfied with their institution's climate as measured by the PACE, findings of this study indicated no differences between classifications of employees.

Previous climate studies (e.g., Dieterly & Schneider, 1974; Fouts, 2004; George & Bishop, 1971; Hall & Lawler, 1969; Insel & Moos, 1974a; Johnson, 2000; Manos-Ramoz, 1997; Moos, 1974; Owens, 2004; Porter & Lawler, 195; Schneider & Bartlett, 1968; Schneider & Hall, 1972) that have examined the role of one's position in an organization have found significant differences. Though this study did not address specific roles within the higher learning institutions, no statistical difference was noted based upon an employee's classification (i.e., administrator, faculty, staff).

Schneider and Reichers' (1983) contention that common exposure, social interaction, and selection result in a homogeneous membership leading to shared meanings, which are manifested in unique perceptions of organizational climate did not hold true for this study. Though Powell and Butterfield (1978) argued that sub-climates exist in an organization and are reflected in differing climate perceptions, no sub-climate can be noted by the degree of climate satisfaction reported by all three levels of employee classifications. Given the fact that the climate ratings of administrators, faculty, and staff are similar, it is reasonable to infer that these employees are having similar experiences with the institution and that the interactions they witness involving coworkers are perceived similarly. This is supported by the fact that across the four PACE factors, means were relatively similar. This high degree of consistency is an indicator of an overall strong climate (James, 1982; Joyce & Slocum, 1984). This finding is consistent with the collective climate theory (Joyce & Slocum, 1984) and the interactionist theory (Schneider & Reichers, 1983). This study did find, however, that Christian higher education organizational sub-climates exist across Christian higher education institutions.

It is not surprising to find that four separate educational institutions statistically differ on climate factors. Christian higher education, then, is not homogeneous, but heterogeneous in its constitution. Further, institutional sub-climates might exist based upon department or college/school designations.

The saliency of favorable climate has been noted by many studies since it is linked to other important organizational outcomes. Studies that have used climate as an independent variable have found that climate translates into highly desirable organizational outcomes. For example, Campbell and associates (1970) found that favorable climate is associated with other positive outcomes such as productivity, satisfaction, absenteeism, and turnover. Researchers have concluded that climate is an index of organizational health (e.g., Abbey & Dickson, 1983; Zohar, 1980), when it has been studied as a dependent variable. As a mediating variable, climate has also been found to moderate job satisfaction and productivity (e.g., James, 1982; James & Jones, 1974; Joyce & Slocum, 1984; Powell & Butterfield, 1978). Thus, while the main thrust of this study was to explore the relationship of organizational climate and commitment, the fact that employees were satisfied with their climate is still important to those in leadership of these particular institutions.

The fact that Christian higher education personnel were most favorable about their organization's teamwork (1.99, $\sigma = 0.72$) may be an indication that Christian values are evidenced through employee behavior. Of course, further investigation is necessary to ascertain if indeed such a relationship exists.

Evidently, employees perceive that their institutions have a solid student focus (2.13, $\sigma = 0.59$). A central value of all higher learning institutions is providing an education for their students. It is a healthy sign of these organizations that employees from all levels deem the focus on students as satisfactory. The fact that these particular schools are judged by all levels of personnel to meet student needs demonstrates that each of the schools understands their fiduciary obligations to parents and students.

Regarding the climate factor of supervisory relationships, this study found that employees were satisfied with their supervision (2.15, $\sigma = 0.73$). A primary administrative expectation is for supervisors to have high quality, supportive relationships with their subordinates (Yukl, 1998). Respondent responses would indicate that supervisors in these sample institutions are meeting their job expectations. Michela and Burke (2000) asserted that climate is substantially influenced by supervisor behaviors that include listening, feedback, and support. Although requiring further study, this finding may provide some insight into the prowess of supervisors within these institutions. Beyond the fact that employees were satisfied with their supervisory relationship are the numerous studies which indicate favorable supervisory relationships result in positive employee and organizational outcomes (Frederickson, 1968; Fryer & Lovas, 1991; Koslowski & Doherty, 1989). For example, Eisenberger and colleagues (1990) have found that perceived organizational support (POS) as manifested in supportive supervision results in employee retention. Importantly, a positive working relationship with one's supervisor or administrator is crucial to employees' psychological

needs to be productive, professionally fulfilled, and to sense a contribution to organizational goals.

Regarding the demographic variables that were examined for their association with climate, three predictive variables are notable. First, this study found that employee tenure was positively related to climate. In concert with other higher education studies exploring climate (e.g., Fouts, 2004; Manoz-Ramos, 1997; Mearns et al., 1998), this study too found that employee tenure (i.e., years of organizational service) was associated with climate. Unlike Fouts' (2004) study, however, this study found that the longer employees remained with the organization the greater their satisfaction with the organization's climate. The finding was correlational rather than causative. Thus, it is impossible to ascertain whether employees who feel satisfied with their organization's climate remain or whether those employees who remain with the organization become more satisfied with the climate.

Two other predictive factors are worth noting. First, age was negatively related to climate. That is, the older the employee the less satisfaction was reported with climate. While the overall rating of organizational climate by Christian higher education personnel was favorable, it would appear that older employees were less enthusiastic about the climate. Finally, employee classification was found to be predictive of organizational climate. In other words, knowing whether an employee is an administrator, faculty, or staff member may provide some insight into their potential perceptions of organizational climate. A problem with this finding, however, is that the statistical

analysis does not provide insight into how an administrator, faculty member, or staff member would perceive the climate.

This study did not find any differences in climate perceptions based upon gender, ethnicity, educational level, years of experience in higher education, employment status (i.e., full-or part-time), or method of payment (i.e., salary or hour). Other studies have found both gender and education to be predictive of climate. For example, whereas Manoz-Ramos (1997) found that less educated employees were more satisfied with climate than more educated employees, this research noted no differences between levels of educational attainment and overall climate perception.

Conclusions on Organizational Commitment

Unlike the PACE (NILIE, 2005), the OCQ (Meyer & Allen, 1997) has not found its place in higher education studies. Previous research that has used the OCQ (Meyer & Allen, 1997) to assess organizational commitment has predominantly been conducted in business and industrial settings. There are no known studies using the OCQ in higher education settings. The organizational commitment instrument that has found favor in higher education among previous researchers, most likely due to its longer tenure, is Mowday, Steers, and Porter's (1979) Organizational Commitment Questionnaire. Subsequently, Meyer and Allen's (1997) OCQ has generated no norms for higher education (J. P. Meyer, personal communication, October 13, 2006).

In terms of the overall mean found for organizational commitment (3.02, $\sigma = 0.69$), this study did not find that employees were committed to their organization. While

other studies have found employees positively committed to their organization (e.g., Billingsley & Cross, 1992; Borchers & Teahen, 2001; Celep, 1992; Chieffo, 1991; Raju & Srivastava, 1994; Richards et al., 1993; Thornhill et al., 1996; Wolverson et al., 2001), this study found Christian higher education personnel scores within the neither committed nor uncommitted range. Given the means and standard deviations of the total commitment and the three commitment type scores, it is possible that a modest degree of organizational commitment does exist. The standard deviation does suggest that employee perceptions may actually fall into the committed range. Each of the three type of commitment means fell within the neutral range. The type means are arranged in descending order, the strongest level of commitment to the lowest (i.e., normative: 3.01, $\sigma = 0.91$; continuance: 3.02, $\sigma = 0.74$; affective: 3.05, $\sigma = 1.02$). The difference between each type's mean and the ideal situation, represented by a score of 1.0 can be identified as a measure of the extent to which employees can augment their level of commitment. For example, in the case of affective commitment with a mean of 3.05, there is much room for organizational improvement in activities that may increase employee loyalty and bonding.

There may be several explanations for the neutral level of commitment in this sample of Christian higher education. The first may be due to the nature of these organizations. The four schools chosen for this study would describe themselves as both evangelical and conservative. Since the mission of Christian education is both academic and spiritual (Adrian, 1997; Kennedy, 1966), employees may choose to remain with the organization because of their agreement with the school's mission. Regardless of one's

position in Christian higher education, pay and benefits are often less than other higher education institutions or employers within the community (Burtchaell, 1998; Wagner, 1990). Simply, employees may join and remain with these institutions because the organizations represent their values or their calling. Meyer and Allen's (1997) concept of normative commitment captures the internalized belief that remaining with an organization is either the best choice or most appropriate decision. It does not, however, capture the notion of values.

Second, and more specifically, the types of commitment measured by the OCQ (Meyer & Allen, 1997) may not have tapped into why Christian higher education employees remain with their organizations. Perhaps a specialized commitment instrument is needed that would more sensitively assess the reasons Christian personnel remain with their employers. For example, Schein's (1978) Career Anchor Theory describes another type of commitment not accounted for in the OCQ model. Career Anchor Theory holds that employees consider their self-perceived talents and abilities (based on actual successes in a variety of work settings), their self-perceived motives and needs (based on opportunities for self-tests and self-diagnosis in real situations and on feedback from others), and their self-perceived attitudes and values (based on actual encounters between self and norms and values of the employing organization and work setting) in deciding on a career. In light of this theory, a level of employee commitment may emerge from organizations that allow individuals to pursue work that they love. Grant (2002) aptly referred to this type of commitment as "career anchor commitment." In addition to career anchor commitment, Varona (2002) postulates that the construct of work ethic is integral

to, not separate, from organizational commitment. Based upon his study, he finds that the construct of organizational commitment incorporates multiple commitments, factors both internal and external to the organization. He further argues that work ethic, which is not included in Meyer and Allen's (1997) model, is a key Christian value that influences why employees work for organizations.

Another possible explanation for the insignificant degree of commitment may lie in the tenure of employees. Of the sample, 68.8% reported that they had less than 5 years with the institution; of those, 48.1% reported 2 years or less. In conversations with each institution, growth as opposed to attrition was credited for that phenomenon. Being that employees were primarily new to the organization any relationship between climate and commitment may not have become a factor. For example, Becker's (1960) Side-Bet theory requires the accumulation of benefits or other side-bets to eventually translate into greater levels of organizational commitment. Shorter tenured employees may not have accumulated sufficient side-bets to promote their levels of commitment.

Regarding the demographic variables, this study found only two (i.e., tenure and age) of the nine variables to be related to organizational commitment. The fact that this study found tenure as negatively related to organizational commitment further adds confusion to the role of this variable with commitment. Several previous studies (e.g., Colbert & Kwon, 2000; Hall et al., 1970; Lee, 1971; Morris & Sherman, 1981) have found a positive relationship between tenure and commitment, whereas other studies have failed to find any relationship (e.g., Hall & Schneider, 1972; Mowday et al., 1979; Steers, 1977). The results of this analysis found a negative association between tenure and

commitment. In other words, the longer employees are with their institution of higher education the less they are committed to it. Such a finding stands in contrast to Meyer and Allen's (1997) contention that the longer an employee remains with their organization the more attached they become. The notion holds that if the overall climate is satisfactory, commitment grows (Werbel & Gould, 1984). In the case of this study, however, even though more tenured employees were satisfied with their climate, they were still less committed to it than employees with less years of organizational service.

Concerning the role of employee age with commitment, previous studies have yielded mixed results. Steers (1977) found that age was negatively associated with commitment, but most studies (e.g., Angle & Perry, 1981; March & Simon, 1958; Morris & Sherman, 1981; Morrow & McElroy, 1987) found positive association between age and commitment. Similarly, this study also found that the older the employee the greater the level of commitment that was reported.

This study failed to find gender, ethnicity, education, employment years in higher education, employee classification as predictive of commitment. Other studies that have examined personal characteristics such as gender, ethnicity, and educational level have yield mixed results. Studies on the role of gender and commitment, for instance, have found that men and women differ in their commitment levels (e.g., Angle & Perry, 1981; Aryee & Heng, 1990; Marsden et al., 1993; Mathieu & Zajac, 1990) whereas a meta-analysis found no gender differences in commitment (Aven et al., 1993). Based upon the responses of this sample, gender did not predict commitment. Likewise, employee ethnicity and educational level did not predict organizational commitment.

Though statistical analysis of the aggregate data found Christian higher education employees expressing a neutral range of commitment, employees from some of the institutions reported favorable commitment. School C, for example, produced a favorable affective commitment mean and standard deviation of 1.95(.71). This represents that employees from this school feel an emotional bond with their particular institution. Likewise, employees from School B also scored within the agreement range with affective commitment, with a mean and standard deviation of 2.20(.80). Personnel from School C also reported that their normative commitment was relatively extant with a mean and standard deviation of 2.40(.71), indicating that employees felt a level of obligation to their particular Christian higher education institution.

Conclusion Section Summary

In summary, this study has been an attempt to examine the relationship between organizational climate and organizational commitment among personnel from Christian higher education. Research on organizational climate indicates that employees create climate by recognizing what happens to and around them and then drawing conclusions about their organization's values and priorities. In turn they set up their own priorities and subsequent behavior accordingly. It was hypothesized that employees would establish a level of organizational commitment based upon their perceptions of their institutional climate.

As a whole, employees of Christian higher education sampled in this study, have a negative relationship between their perceptions of organizational climate and their

expressed levels of organizational commitment. The apparent anomaly of this finding is that the more satisfied employees were with their climate the lower their degree of expressed commitment. As cacophonous as it sounds, the fact that employees considered the climate favorable appears to have a negative impact on their organizational commitment. When employee classification was considered, staff responses were consistent with the overall correlation yielding a negative relationship between the two variables. The unusual findings may be explained from a number of different perspectives, though the exact nature of this aberrant finding is not understood. Although there was a statistically significant negative relationship found in the analyses of these 957 respondents, it cannot be subsequently concluded that there is not a significant positive relationship due to other factors that have not been included in this study or factors that influenced the outcome of this study. This study can serve as a seminal baseline upon which further investigations can be built.

Aside from the negative statistical correlation between climate and commitment, Christian higher education institutional climate appears to be favorable. Current organizational practices may be adequate in yielding a satisfactory perception of climate, but there is still ample room for improved climate perceptions.

Additionally, the demographic variables that were found to be predictive of climate (i.e., employee classification, tenure, and age) and commitment (i.e., tenure and age) accounted for only 3% and 1% of the total variance respectively. Thus, while statistical analysis of these respondent demographic variables found them to be predictive

there is little compelling evidence to bear them in mind when examining organizational climate and commitment in Christian higher education.

Recommendations

Climate and commitment studies provide data that ultimately yield recommendations for organizations. Accordingly, those in governance may be better informed to institute changes that can lead to climate enhancement, greater employee loyalty, as well as other desirable outcomes. For example, Hoy and associates (1991) stated that climate was a means for improving the productivity of a school as well as an end in itself. Previous research has supported their assertion (e.g., Gormley, 2005; Grant, 2002; Suliman, 2001; Welsh & LaVan, 1981).

The results of this study found a statistical significant negative correlation between organizational climate and commitment in Christian higher education personnel. Had the study given compelling evidence of a positive link between the two constructs, those in governance of Christian education would have a more solid basis upon which to build employee loyalty. Subsequently, the findings offer little institutional effectiveness direction to administrators and governing boards. Of note, Christian higher education personnel are generally satisfied with their organizational climate. Overall, the means for climate fell within the satisfactory range (i.e., teamwork, 1.99, $\sigma = .72$; student focus, 2.13, $\sigma = .59$; supervisory relationship, 2.15, $\sigma = .73$; and institutional structure, 2.49, $\sigma = .74$). The outcome was not as reassuring for organizational commitment. For commitment, the mean scores reflected a neutral response from all Christian higher education employees

(i.e., total, 3.02, $\sigma = .69$; normative, 3.01, $\sigma = .91$; continuance, 3.02, $\sigma = .74$; and affective, 3.05, $\sigma = 1.02$). So while perceptions of climate were favorable, employee commitment was not concomitantly propitious. Although the present findings do not allow for definitive conclusions regarding commitment, administrators and governing boards can take note of a potentially vulnerable workforce.

Next, the seminal nature of this study provides baseline data to which other studies might compare. Of course, generalizability from these findings is limited (Kerlinger, 1986). While the four schools who participated in this study would describe themselves as both evangelical and conservative, no formal assessment was made of that fact. It is highly possible that these schools are not representative of all conservative evangelical higher education institutions. The fact that they were statistically different from one another on the climate and commitment measures would indicate that each Christian higher education institution represents a distinct climate; in other words, sub-climates exist in Christian higher education. It is apparent then, that Christian higher education is heterogeneous rather than homogenous on the measures of climate and commitment. Therefore, any inference to other like-minded schools is suspect. It is likely, however, that the results of this analysis are potentially more useful—though still limited—to similar Christian higher education environments. The present findings are of particular interest, of course, to those institutions who participated in the study. Knowledge of one's organization is always important as decisions and plans are developed and implemented. As strategic and tactical plans are made that involve mobilization of the organization's human resources, the perceptions of employees is

paramount. Accordingly, the data does provide each institution with their employees' perceptions of climate and commitment, which provides a level of insight into their organizational environment.

Future Research

First and foremost, Christian institutions of higher education are ripe for empirical study. Previous studies have resulted in ample information about organizational climate and commitment, but no study has approached Christian educational institutions. This study suggests that much can be learned in the application of instrumentation and methodology found in the business world to Christian higher education.

Surveys provide a valuable tool to gain insight into employee attitudes, beliefs, opinions, and feelings about particular items of interest (Kerlinger, 1986). Yet, the limitations of survey are also well recognized (Babbie, 1983; Kerlinger, 1986). Given the lack of significance in this study, qualitative methodology may have tapped into more rich descriptions of employee perceptions of climate and commitment. The iterative nature of qualitative methodology, the fact that it provides perspective rather than objective truth, and theories of actions instead of generalizations (Grant, 2002), offers organizational researchers rich and heuristically valuable information upon which to conduct further studies. Schein (2000) noted that qualitative research could identify aspects of climate that are salient to employees. These insights might be potentially stronger determinants of work attitudes than what can be found quantitatively. Since both quantitative and qualitative methodologies offer different windows into organizational

process, perhaps Virtanen's (2000) recommendation is correct that both approaches are necessary. Qualitative inquiry would have shed light into the confusion of the negative correlation found in his present study. Future research of the Christian higher education environment, therefore, should incorporate a mixed design that combines both quantitative and qualitative methodologies to cull out a better understanding of these organizational processes in these unique organizational environments.

A third consideration for future research would be a longitudinal study. Forehand and Gilmer (1964) defined organizational climate as an enduring quality. Thus, a longitudinal perspective would enable a measurement of how perceptions of climate and commitment may either change or persevere with time and experience (cf. Jackofsky & Slocum, 1988). It would also make it possible to tabulate consistencies both within and across departments and within and across schools within the same educational institution (e.g., sub-cultures). Such knowledge will provide administrators with a more holistic perspective of the factors that affect their employee's workplace experience.

Moreover, future research should also consider the uniqueness of employees at a Christian school (cf. Flowers, 1992) in assessing its organizational climate. Although the OCQ (Meyer & Allen, 1997) has been the most widely used instrument to assess organizational commitment, the PACE (NILIE, 2005) has not been some liberally used. Though the PACE has been used in over 120 studies of organizational climate, the preponderance of these studies has been community college environments (e.g., Baker, 1992, 1995; Fouts, 2004; Manzo-Ramos, 1997; Roueche & Baker, 1987; Tiu, 2001). Many climate measures exist that are suitable for higher education. Shenkle and

associates (1998) offer a list of 59 climate measures for college and university settings. Respective of the existing measures, the PACE was chosen for this study for the soundness of its validity and reliability and for its heuristic value in other studies. A careful reading of the PACE's questions raises no face valid concerns over the use of this instrument with other higher education environments. In fact, the PACE has been used to assess the organizational climate of other higher education institutions (cf. Caison, 2005). Although the decision to use the PACE to assess these Christian higher education environments posed no apparent concerns, all other studies that found significance between climate and commitment used a different climate measure. For example, Grant (2002) used the McNabb and Sepic's (1995) organizational climate scale to assess non-profit organizations. The dimensions assessed by McNabb and Sepic's questionnaire differ from those of the PACE. Like the PACE, McNabb and Sepic's questionnaire measures organizational structure, but taps into other dimensions such as responsibility, risk, rewards, warmth and support, conflict, organizational identity, approved practices, and ethical practices. None of these factors, for instance, are evaluated by PACE. With the exception of responsibility and risk, Grant (2002) found positive correlations between the other climate dimensions and both affective and normative commitment. For continuance commitment, only the conflict climate dimension was correlated.

More specifically, in light of the value placed on spiritual matters in conservative evangelical institutions, it would help to have an organizational climate questionnaire that assessed employee perceptions of their organization's Christian climate. Simply put, to what degree does the organizational climate reflect Christian values? Assessing the

spiritual climate requires more than adding spiritually oriented questions. For example, it would be important to not only assess the spiritual climate of the organizations as a whole, but to assess how each specific climate factor (e.g., institutional structure, teamwork) is evidenced in spiritual terms. While aspects of the PACE approach basic Christian values it fails to capture the qualitative level and the extent to which these values are central to the mission of these institutions. In developing such a measure, consideration should be given to Schein's (2000) recommendation of targeted qualitative research and to Payne's (2000) suggestion that climate scales be designed in collaboration with members of the organization to increase their ecological and predictive validity. Since different climate measures conceptualize and operationalize the climate construct uniquely it is possible that another measure may have found dimensions of Christian higher education climate, which were correlated with employee organizational commitment.

Future research into Christian higher learning environments also needs to consider the vast array of differences that exist in this population. Christian colleges and universities are heterogeneous, representing their own unique personality rather than a corporate Christian higher education personality. Future researchers must consider whether Christian higher education can be assessed across different schools. At least any participating schools should be relatively equivalent in size to minimize one particular school climate from statistically influencing the direction of the findings, though this would need to be shown empirically.

Not only is Christian higher education distinct based upon each institution's unique personality, but the heterogeneity is also found in the vast array of Christian schools that fall under the umbrella of Christian higher education. Christian higher education, for instance, is comprised of denomination based and church based colleges and universities. Various Christian higher education institutions can scatter themselves across a doctrinal continuum of conservative to liberal. They can be classified as liberal arts or Bible, which is distinct from Christian liberal art colleges and universities in several ways. First, Bible colleges typically limit majors to those that are ministry-related and in education. Second, Bible schools, by virtue of their mission may reflect a different climate and commitment among its employees. Both administrators and faculty are often former ministers, moving into higher education from previous employment in church ministry. Thus, there is less variability among personnel in terms of career, training, and experience. Third, the size of Bible colleges is generally smaller than liberal arts Christian colleges and universities. Differences also exist in terms of doctrinal belief and to conservative verse liberal ideology (Willey, 1991).

Another future research consideration would include a careful examination of concomitant factors in the climate-commitment connection. This level of analysis is warranted in order to better comprehend and clarify the study results. Christian higher education analysis would also benefit from additional measures (e.g., job satisfaction and leadership questionnaires) to ferret out antecedents or consequences of climate and commitment.

Finally, future research could examine Christian higher education student perceptions as to the climate of their school, and relate it to their commitment. Since students are the primary customers of education and since they experience climate differently due to their particular positions within the environments they may offer interesting and fresh insights into the institution's environment.

Summary

This study sought to find connection between climate and commitment among employees of Christian higher education institutions. It was hypothesized that employee perceptions of their organizational climate would be statistically related to their degree of organizational commitment. Employees were categorized as administrators, faculty, and staff. A total of 957 participants, representing 46% of potential employees from four evangelical higher education schools responded to nine demographic questions and two well-researched organizational measures: the Personal Assessment of College Environment (PACE) survey and Organizational Commitment Questionnaire (OCQ). The PACE (NILIE, 2005) is a 46-item questionnaire that was chosen to assess employee perceptions of organizational climate. The PACE conceptualizes organizational climate with four factors: institutional structure, supervisory relationship, teamwork, and student focus. Employees were also administered Meyer and Allen's (1997) OCQ, an 18-item inventory designed to tap into the three types of commitment: affective (i.e., want to stay), continuance (i.e., need to stay), and normative (i.e., obligated to stay). All responses to each measure were investigated according to the total score and each of the

climate factors and each of the commitment types. Statistically, data was analyzed using correlational procedures, stepwise multiple regression, MANOVA, and ANOVA. Correlation results on both climate and commitment total scores yielded a statistically significant negative relationship. No correlations were found between organizational climate and organizational commitment for administrators and faculty, but a statistically significant negative correlation was found for staff. Since staff represented approximately two-thirds of the overall respondents, they likely strongly influenced the overall negative correlation. Two separate stepwise analyses indicated that employee age, tenure, and employee classification statistically predicted organizational climate whereas employee age and tenure predicted organizational commitment. In spite of the statistical significance found, both variances were very low (i.e., 3% and 2%). Using employee classification and the dependent measures, the MANOVA yielded significant differences, but small effect size accounting for only 1% of the variance. A follow-up ANOVA found significance for organizational climate, but not for organizational commitment. Finally, results indicated that administrators were slightly more committed than staff. Although the present findings do not allow for definitive conclusions regarding the relationship between organizational climate and organizational commitment in Christian higher education, they do add to the scant literature and offer nascent research of a setting that is empirically destitute.

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APPENDIX A

PERSONAL ASSESSMENT OF COLLEGE ENVIRONMENT (PACE)

<i>Very Satisfied</i> 1	<i>Satisfied</i> 2	<i>Neither Satisfied Or Dissatisfied</i> 3	<i>Dissatisfied</i> 4	<i>Very Dissatisfied</i> 5	<i>Not Applicable</i> 0
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1. The extent to which the actions of this institution reflect its mission.
2. The extent to which my supervisor expresses confidence in my work.
3. The extent to which there is a spirit of cooperation within my work team.
4. The extent to which decisions are made at the appropriate level.
5. The extent to which the institution effectively promotes diversity in the workplace.
6. The extent to which administrative leadership is focused on meeting the needs of students.
7. The extent to which student needs are central to what we do.
8. The extent to which I feel my job is relevant to this institution's mission.
9. The extent to which my supervisor is open to the ideas, opinions, and beliefs of everyone.
10. The extent to which information is shared within the institution.
11. The extent to which institutional teams use problem-solving techniques.
12. The extent to which positive work expectations are communicated to me.
13. The extent to which unacceptable behaviors are identified and communicated to me.
14. The extent to which my primary work team uses problem-solving techniques.
15. The extent to which I am able to appropriately influence the direction of this institution.
16. The extent to which open and ethical communication is practiced.
17. The extent to which faculty meet the needs of students.
18. The extent to which student ethnic and cultural diversity are important at this institution.
19. The extent to which students' competencies are enhanced.
20. The extent to which I receive timely feedback for my work.
21. The extent to which I receive appropriate feedback for my work.
22. The extent to which this institution has been successful in positively motivating my performance.
23. The extent to which non-teaching professional personnel meet the needs of the students.
24. The extent to which there is an opportunity for all ideas to be exchanged within my work team.
25. The extent to which a spirit of cooperation exists at this institution.
26. The extent to which my supervisor actively seeks my ideas.

APPENDIX A. CONTINUED

27. The extent to which my supervisor seriously considers my ideas.
28. The extent to which classified (supporting) personnel meet the needs of the students.
29. The extent to which institution-wide policies guide my work.
30. The extent to which work outcomes are clarified for me.
31. The extent to which students receive an excellent education at this institution.
32. The extent to which this institution is appropriately organized.
33. The extent to which my work team provides an environment for free and open expression.
34. The extent to which my supervisor helps me to improve my work.
35. The extent to which this institution prepares students for a career.
36. The extent to which my work team coordinates its efforts with appropriate individuals.
37. The extent to which this institution prepares students for further learning.
38. The extent to which I have the opportunity for advancement.
39. The extent to which I am given the opportunity to be creative in my work.
40. The extent to which students are assisted with their personal development.
41. The extent to which I receive adequate information regarding important activities.
42. The extent to which students are satisfied with their educational experience.
43. The extent to which a spirit of cooperation exists in my department.
44. The extent to which my work is guided by clearly defined administrative processes.
45. The extent to which I have the opportunity to express my ideas in appropriate forums.
46. The extent to which professional development and training opportunities are available.

APPENDIX A. CONTINUED.

Key Sheet linking PACE Questions to their Respective Factors

ITEM	FACTORS
1	Institutional Structure
2	Supervisory Relationship
3	Teamwork
4	Institutional Structure
5	Institutional Structure
6	Institutional Structure
7	Student Focus
8	Student Focus
9	Supervisory Relationship
10	Institutional Structure
11	Institutional Structure
12	Supervisory Relationship
13	Supervisory Relationship
14	Teamwork
15	Institutional Structure
16	Institutional Structure
17	Student Focus
18	Student Focus
19	Student Focus
20	Supervisory Relationship
21	Supervisory Relationship
22	Institutional Structure
23	Student Focus

ITEM	FACTORS
24	Teamwork
25	Institutional Structure
26	Supervisory Relationship
27	Supervisory Relationship
28	Student Focus
29	Institutional Structure
30	Supervisory Relationship
31	Student Focus
32	Institutional Structure
33	Teamwork
34	Supervisory Relationship
35	Student Focus
36	Teamwork
37	Student Focus
38	Institutional Structure
39	Supervisory Relationship
40	Student Focus
41	Institutional Structure
42	Student Focus
43	Teamwork
44	Institutional Structure
45	Supervisory Relationship
46	Supervisory Relationship

APPENDIX B

ORGANIZATIONAL COMMITMENT QUESTIONNAIRE (OCQ)

<i>Strongly Disagree</i> 1	<i>Disagree</i> 2	<i>Neither Agree Nor Disagree</i> 3	<i>Agree</i> 4	<i>Strongly Agree</i> 5	<i>Not Applicable</i> 0
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1. It would be very hard for me to leave my organization right now, even if I wanted to.
2. I do not feel any obligation to remain with my current employer.
3. I would be very happy to spend the rest of my career with this organization.
4. One of the few negative consequences of leaving this organization would be the scarcity of available alternatives.
5. Even if it were to my advantage, I do not feel it would be right to leave my organization now.
6. I really feel as if this organization's problems are my own.
7. Right now, staying with my organization is a matter of necessity as much as desire.
8. I do not feel a strong sense of "belonging" to my organization.
9. I feel that I have too few options to consider leaving this organization.
10. I do not feel "emotionally attached" to this organization.
11. I would feel guilty if I left my organization now.
12. I do not feel like "part of the family" at my organization.
13. This organization deserves my loyalty.
14. If I had not already put so much of myself into this organization, I might consider working elsewhere.
15. I would not leave my organization right now because I have a sense of obligation to the people in it.
16. This organization has a great deal of personal meaning for me.
17. Too much of my life would be disrupted if I decided I wanted to leave my organization now.
18. I owe a great deal to my organization.

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APPENDIX B. CONTINUED.

Key Sheet linking Commitment Scale Questions to their respective components

ITEM	COMPONENT	SCORING
1	Continuance	
2	Normative	Scored in Reverse
3	Affective	
4	Continuance	
5	Normative	
6	Affective	
7	Continuance	
8	Affective	Scored in Reverse
9	Continuance	
10	Affective	Scored in Reverse
11	Normative	
12	Affective	Scored in Reverse
13	Normative	
14	Continuance	
15	Normative	
16	Affective	
17	Continuance	
18	Normative	

Affective Component Items: 3, 6, 8, 10, 12, 16

Continuance Component Items: 1, 4, 7, 9, 14, 17

Normative Component Items: 2, 5, 11, 13, 15, 18

APPENDIX C

TABLES

Table C1. Institutional Survey Return Rate based upon Employee Classification

Employee Classification	School A	School B	School C	School D
Administration	49/ 58 (84%)	19/ 33 (58%)	5/ 9 (55%)	16/ 16 (100%)
Faculty	125/ 326 (38%)	52/ 81 (64%)	24/ 35 (69%)	21/ 26 (81%)
Staff	504/1170 (43%)	75/143 (52%)	31/ 60 (52%)	36/ 39 (92%)
Total	678/1554 (44%)	146/257 (57%)	60/104 (58%)	73/ 81 (90%)

Table C2. Aggregate Survey Return Rate based upon Employee Classification

Employee Classification	Potential Responses	Total Returned	Total
Administration	116	89	76.7%
Faculty	468	222	47.4%
Staff	1492	646	43.2%
Total	2076	957	46.0%

Table C3. Frequencies and Percentages of Aggregate and Institutional Demographic Variables

Variable	School A	School B	School C	School D	Total
<i>n</i>	678(70.9%)	146(15.2%)	60(6.3%)	73(7.6%)	957
<i>Classification</i>					
Administrator	49(7.2%)	19(13%)	5(8.3%)	16(21.9%)	89(9.3%)
Faculty	125(18.4%)	52(35.6%)	24(40.0%)	21(28.8%)	222(23.2%)
Staff	504(74.3%)	75(51.4%)	31(51.7%)	36(49.3%)	646(67.5%)
<i>Status</i>					
Full-Time	664(97.9%)	134(91.8%)	54(90.0%)	55(75.3%)	907(94.9%)
Part-Time	12(1.8%)	12(8.2%)	6(10.0%)	18(24.7%)	48(5.0%)
No Response	1(.1%)	-	-	-	1(.1%)
<i>Payment</i>					
Salary	447(65.9%)	108(74.0%)	36(60.0%)	44(60.3%)	635(66.4%)
Hourly	229(33.8%)	38(26.0%)	24(40.0%)	29(39.7%)	320(33.4%)
No Response	2(.2%)	-	-	-	2(.2%)
<i>Gender</i>					
Male	361(53.2%)	63(43.2%)	32(53.3%)	44(60.3%)	500(52.2%)
Female	315(46.5%)	83(56.8%)	28(46.7%)	29(39.7%)	455(47.5%)
No Response	2(.2%)	-	-	-	2(.2%)
<i>Age</i>					
<20	14(2.1%)	-	-	-	14(1.5%)
21-30	274(40.4%)	22(15.0%)	6(10.0%)	22(30.1%)	324(33.9%)
31-40	99(14.6%)	32(21.9%)	11(18.3%)	12(16.4%)	154(16.1%)
41-50	130(19.2%)	39(26.7%)	20(33.3%)	18(24.7%)	207(21.6%)
>51	161(23.7%)	53(36.3%)	23(38.3%)	21(28.8%)	258(27.0%)

Table C3. Frequencies and Percentages of Aggregate and Institutional Demographic Variables (*continued*)

Variable	School A	School B	School C	School D	Total
<i>n</i>	678(70.9%)	146(15.2%)	60(6.3%)	73(7.6%)	957
<i>Ethnicity</i>					
African-Am.	31(4.6%)	-	-	-	31(3.2%)
Asian/Islander	16(2.4%)	-	1(1.7%)	-	17(1.8%)
Caucasian	595(87.8%)	142(97.3%)	56(93.3%)	69(94.5%)	862(90.1%)
Hispanic	13(1.9%)	4(2.7%)	2(3.3%)	2(2.7%)	21(2.2%)
Other	20(2.9%)	-	1(1.7%)	2(2.7%)	23(2.4%)
No Response	3(.4%)	-	-	-	3(.3%)
<i>Years in Higher Education</i>					
<1 year	180(26.5%)	11(7.5%)	1(1.7%)	22(30.1%)	214(22.4%)
1-4 years	240(35.4%)	40(27.4%)	24(40.0%)	18(24.7%)	322(33.6%)
5-9 years	108(15.9%)	33(22.6%)	7(11.7%)	14(19.2%)	162(16.9%)
10-19 years	73(10.8%)	39(26.7%)	15(25.0%)	13(17.8%)	140(14.6%)
>20 years	72(10.6%)	23(15.8%)	13(21.7%)	6(8.2%)	114(11.9%)
No Response	5(.7%)	-	-	-	5(.5%)
<i>Years of Service to the Organization</i>					
<1 year	192(28.3%)	14(9.6%)	3(5.0%)	26(35.6%)	235(24.6%)
1-2 years	182(26.8%)	22(15.1%)	7(11.7%)	14(19.2%)	225(23.5%)
3-5 years	138(20.4%)	30(20.5%)	19(31.7%)	11(15.1%)	198(20.7%)
6-10 years	69(10.2%)	31(21.2%)	10(16.7%)	10(13.7%)	120(12.5%)
>11 years	96(14.2%)	49(33.6%)	21(35.0%)	12(16.4%)	178(18.6%)
No Response	1(.1%)	-	-	-	1(.1%)
<i>Highest Level of Education</i>					
High School	102(15.0%)	13(8.9%)	11(18.3%)	7(9.6%)	133(13.9%)
Two Years	97(14.3%)	15(10.3%)	5(8.3%)	8(11.0%)	125(13.1%)
Four Years	255(37.6%)	42(28.8%)	19(31.7%)	24(32.9%)	340(35.5%)
Masters	131(19.3%)	36(24.7%)	22(36.7%)	23(31.5%)	212(22.2%)
Doctorate	91(13.4%)	40(27.4%)	3(5.0%)	11(15.1%)	145(15.2%)
Total	2(.3%)	-	-	-	2(.2%)

Table C4. ANOVA Means and Standard Deviations for Organizational Climate Factors

	Institutional Structure	Supervisory Relationship	Teamwork	Student Focus	Total Score
	<i>n</i> <i>M(SD)</i>	<i>n</i> <i>M(SD)</i>	<i>n</i> <i>M(SD)</i>	<i>n</i> <i>M(SD)</i>	<i>N</i> <i>M(SD)</i>
School A	676 2.53(.74)	676 2.17(.75)	675 2.03(.74)	674 2.18(.57)	668 2.26(.62)
School B	146 2.51(.70)	146 2.07(.63)	146 1.82(.65)	146 1.93(.47)	146 2.14(.51)
School C	60 1.90(.57)	60 1.83(.51)	60 1.78(.66)	60 1.67(.40)	60 1.81(.42)
School D	73 2.59(.83)	73 2.39(.73)	73 2.11(.73)	73 2.39(.59)	73 2.43(.71)

Table C5. ANOVA Means and Standard Deviations for Organizational Commitment Types

	Continuance	Normative	Affective	Total Score
	<i>n</i> <i>M(SD)</i>	<i>n</i> <i>M(SD)</i>	<i>n</i> <i>M(SD)</i>	<i>n</i> <i>M(SD)</i>
School A	673 2.99(.76)	675 3.20(.87)	675 3.38(.89)	669 3.18(.67)
School B	146 3.14 (.67)	146 2.54(.81)	146 2.20(.80)	146 2.63(.56)
School C	60 3.14(.65)	60 2.40(.71)	60 1.95(.71)	60 2.50(.50)
School D	73 3.25(.69)	73 2.75(.97)	73 2.55(.99)	73 2.84(.69)

Table C6. Aggregate and School Climate and Commitment Means and Standard Deviations

Factor	School A	School B	School C	School D	Total
	<i>M(SD)</i>	<i>M(SD)</i>	<i>M(SD)</i>	<i>M(SD)</i>	<i>M(SD)</i>
<i>PACE</i>					
Institutional Structure	2.52(0.74)	2.51(0.70)	1.90(0.57)	2.60(0.83)	2.49(0.74)
Supervisory Relationship	2.17(0.75)	2.07(0.63)	1.83(0.51)	2.39(0.79)	2.15(0.73)
Teamwork	2.03(0.74)	1.82(0.65)	1.78(0.66)	2.11(0.74)	1.99(0.72)
Student Focus	2.19(0.57)	1.92(0.47)	1.67(0.40)	2.40(0.76)	2.13(0.59)
Total Climate	2.26(0.62)	2.14(0.51)	1.81(0.42)	2.43(0.71)	2.23(0.61)
<i>OCQ</i>					
Affective	3.37(0.88)	2.20(0.80)	1.95(0.71)	2.55(0.99)	3.05(1.02)
Normative	3.20(0.87)	2.54(0.81)	2.40(0.71)	2.75(0.97)	3.01(0.91)
Continuance	2.95(0.76)	3.14(0.67)	3.14(0.65)	3.25(0.69)	3.02(0.74)
Total Commitment	3.18(0.67)	2.63(0.56)	2.50(0.50)	2.85(0.71)	3.02(0.69)

PACE Coded Scale: 1 = *Very Satisfied*; 2 = *Satisfied*; 3 = *Neither Satisfied or Dissatisfied*; 4 = *Dissatisfied*; 5 = *Very Dissatisfied*

OCQ Coded Scale: 1 = *Strongly Agree*; 2 = *Agree*; 3 = *Neither Agree or Disagree*; 4 = *Disagree*; 5 = *Strongly Disagree*

Table C7. Climate and Commitment Means and Standard Deviations by Employee Classification

Factor	Administrator	Faculty	Staff
	<i>M(SD)</i>	<i>M(SD)</i>	<i>M(SD)</i>
<i>PACE</i>			
Institutional Structure	2.33(0.77)	2.44(0.75)	2.53(0.74)
Supervisory Relationship	1.98(0.76)	2.17(0.73)	2.17(0.73)
Teamwork	1.70(0.64)	2.00(0.73)	2.02(0.73)
Student Focus	2.02(0.64)	2.02(0.53)	2.17(0.59)
Total Climate	2.06(0.64)	2.18(0.59)	2.27(0.62)
<i>OCQ</i>			
Affective	2.91(1.20)	3.11(1.12)	3.04(0.95)
Normative	2.96(1.05)	3.04(0.91)	3.01(0.89)
Continuance	3.07(0.73)	3.10(0.72)	2.99(0.75)
Total Commitment	2.99(0.75)	3.07(0.66)	3.01(0.69)

PACE Coded Scale: 1 = *Very Satisfied*; 2 = *Satisfied*; 3 = *Neither Satisfied or Dissatisfied*; 4 = *Dissatisfied*; 5 = *Very Dissatisfied*

OCQ Coded Scale: 1 = *Strongly Agree*; 2 = *Agree*; 3 = *Neither Agree or Disagree*; 4 = *Disagree*; 5 = *Strongly Disagree*

Table C8. Correlations between Organization Climate Scales and Organizational Commitment Scales for Administrators

	Institutional Structure	Supervisory Relationship	Teamwork	Student Focus	Continuance	Normative	Affective
Institutional Structure	1.00						
Supervisory Relationship	.75**	1.00					
Teamwork	.69**	.75**	1.00				
Student Focus	.80**	.64**	.72**	1.00			
Continuance	-.05	.07	.07	-.05	1.00		
Normative	.03	.03	-.08	.07	.12	1.00	
Affective	.02	.01	-.08	.05	-.18	.82**	1.00

Note: * $p < .05$, ** $p < .01$, $N = 89$

Table C9. Correlations between Organization Climate Scales and Organizational Commitment Scales for Faculty

	Institutional Structure	Supervisory Relationship	Teamwork	Student Focus	Continuance	Normative	Affective
Institutional Structure	1.00						
Supervisory Relationship	.72**	1.00					
Teamwork	.57**	.74**	1.00				
Student Focus	.73**	.59**	.51**	1.00			
Continuance	-.06	.02	-.01	.02	1.00		
Normative	-.01	-.02	.04	.07	-.01	1.00	
Affective	-.01	-.04	.002	.05	-.13	.78**	1.00

Note: * $p < .05$, ** $p < .01$, $N = 222$

Table C10. Correlations between Organization Climate Scales and Organizational Commitment Scales for Staff

	Institutional Structure	Supervisory Relationship	Teamwork	Student Focus	Continuance	Normative	Affective
Institutional Structure	1.00						
Supervisory Relationship	.71**	1.00					
Teamwork	.67**	.82**	1.00				
Student Focus	.74**	.56**	.52**	1.00			
Continuance	-.22**	-.11**	-.13**	-.20**	1.00		
Normative	-.32**	-.30**	-.28**	-.25**	.40**	1.00	
Affective	-.24**	-.27**	-.26**	-.16	.16**	.73**	1.00

Note: * $p < .05$, ** $p < .01$, $N = 646$

Table C11. Standardized and Unstandardized Beta Weights for Significant Predictors of Organizational Climate

Predictor Variables	Organizational Climate		
	Standardized Beta	Unstandardized Beta	<i>t</i>
Age	-.18	-.09	-4.45
Years of Organizational Service	.12	.05	3.01
Employee Classification	.09	.08	2.52

Table C12. Standardized and Unstandardized Beta Weights for Significant Predictors of Organizational Commitment

Predictor Variables	Organizational Commitment		
	Standardized Beta	Unstandardized Beta	t
Age	.16	.09	4.23
Years of Organizational Service	-.14	-.07	-3.71

Table C13. Means and Standard Deviations Resulting from the MANOVA for Organizational Climate by Employee Classification

Dependent Variable	Administration	Faculty	Staff
Organizational Climate			
<i>M</i>	2.06*	2.17	2.27
<i>SD</i>	.63	.58	.61

Administration < Staff at $p < .025$

Table C14. Means and Standard Deviations Resulting from the MANOVA for Organizational Commitment by Employee Classification

Dependent Variable	Administration	Faculty	Staff
Organizational Commitment			
<i>M</i>	2.98	3.07	3.01
<i>SD</i>	.74	.69	.69

Note: No significant differences between employee classifications