CAREER DEVELOPMENT FACTORS OF WOMEN IN

COMMUNITY AND TECHNICAL COLLEGE LEADERSHIP

By

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(Under the Direction of Catherine Sielke)

ABSTRACT

This descriptive study examined the career development of women executive leaders based on data from a sample of community and technical college leaders. The purpose of this study was to identify and describe the dimensions of support necessary for women to be successful in attaining executive leadership positions in community and technical colleges.

A 25-question survey instrument was developed by the researcher based on the literature and preliminary interviews with executive leaders. Women executive leaders in community and technical colleges were asked to rate the importance of the survey items to their career development.

The 147 participants in the study were an average age of 53.3 years; 84.6% were Caucasian, 9.6% were African American and .7% were Asian. Participants were 29 presidents and 111vice-presidents of community and technical colleges in the Southeastern United States. Forty-two and one-half percent of the respondents held Doctoral degrees, 30.8% held Masters' degrees, 9.6% held Bachelor's degrees, 8.9% held Educational Specialist degrees and 4.8% were All but Dissertation.

An exploratory factor analysis was performed to identify seven dimensions of support necessary in the career development of women: peer support, professional support, departmental support, mentoring support, home and community support, gender support, and networking support. Peer Support and Professional Support represent new findings, thereby adding to the literature on women in leadership and women's career development. An analysis of comments to open response items revealed the following components perceived as influential in the career development of women in community and technical college leadership: guidance by senior leadership, family members, mentors, personal desire, leadership seminars, and peers. Barriers encountered by women in community and technical college leadership were identified as: family/household responsibilities, gender discrimination/bias, office politics, self doubt, racial discrimination, and age discrimination.

INDEX WORDS: Women's leadership, Women's career development, Barriers to women's career development, Community college leadership, Technical college leadership, Glass ceiling, Women in educational administration.

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A Dissertation Submitted to the Graduate Faculty of The University of Georgia in Partial

Fulfillment of the Requirements for the Degree

DOCTOR OF EDUCATION

ATHENS, GEORGIA

2005

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ACKNOWLEDGEMENTS

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER I

INTRODUCTION

The community college movement in the United States began in the early 1900's (Vaughan, 1995). Embodying characteristics of public high schools, junior colleges, four-year colleges, and universities, community colleges have evolved as institutions serving the "public good as well as individual needs" (Vaughn, 1995 p. 1). In 2002, there were approximately 1472 public community and technical colleges in America (National Center for Education Statistics, 2003). According to Vaughn (1995), "more than 50 percent of all first-time college students in the United States attend a community college, and more than 45 percent of all minority students enrolled in higher education in America attend a community college" (p. 2). Community and technical colleges, with their open-access admissions, are thereby expanding educational opportunities of many Americans.

Defined as "publicly supported, regionally accredited institutions of higher education that offer the associate's degree as the highest degree" (Vaughn, 1995, p. 2), community and technical colleges have served as the "centerpiece of the nation's plan for providing universal access to higher education" (Vaughn, 1995 p. 4). It is important to note that open access does not mean lower standards. The academic prerequisites for entering community and technical colleges are no different from those at most four-year colleges and universities. The primary difference, as noted by Vaughan (1995), is that instead of turning away individuals who do not meet the prerequisites, community and technical colleges offer "avenues for students to obtain the necessary prerequisites" (p. 5).

Effective leadership is the key component in organizational growth and success. As community and technical colleges continue to grow to address global competition, training and preparing potential leaders is becoming more of a priority. Education is one of the primary female career fields. Women are greatly represented in teaching, secretarial, and mid-level leadership positions. Upper-level career movement in educational leadership for women, however, remains a challenging path. The lack of female representation in executive leadership positions is contradictory when compared to the proportions of women enrolled in leadership programs (Tallerico, 2000). The research conducted by Strachan (1993) concluded that there is a gap between the pursuit of leadership training by women and the filling of leadership positions.

Studies show that the percentage of women earning advanced degrees and completing leadership-training programs has almost doubled in the past 20 years (*Black Issues in Higher Education*, 2002; Getskow, 1996). Figure 1 depicts the history of advanced degrees granted to men and women between 1969 and 2000. The advanced degree attainment by women grew from just over 30% in 1969 to almost 60% in 2000. These women, therefore, are prime candidates to assume leadership roles in technical and community colleges.

The traditional organizational structure in educational leadership ignores gender as a cultural force in shaping organizational life (Tallerico, 2000). Women in educational leadership are constantly reacting to male dominated organizational contexts. As a result, women face psychological burdens and spend more time and energy to attain career development comparable to their male counterparts. Some women, African American women specifically, become disheartened by the organizational barriers they face. The research regarding women in leadership identifies gender, race, and ethnicity as "important factors in executive search and selection procedures" (Tallerico, 2000, p.19). Traditional organizational structure in educational

leadership, as reported by Tallerico, perpetuates access to executive leadership for white males, while limiting access for others. Tedrow and Rhoads (1999) found that women are less likely than men to participate in upper levels of leadership.
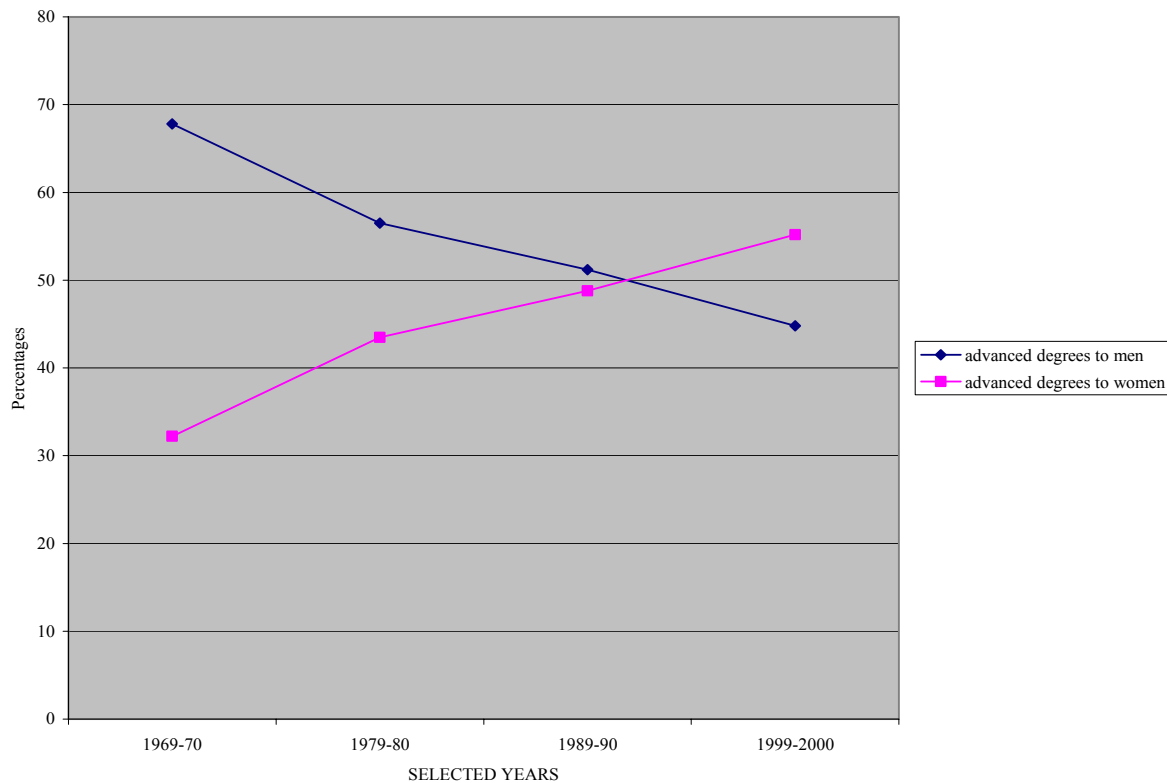
Figure 1 Historical Review of Advanced Degree Attainment by Sex.

Note: Figure 1 was developed by the researcher, based on data from the 2002 edition of the Digest of Statistics.

In addition to societal and gender stereotypes, traditional organizational structure exists as another barrier to women's career development in educational leadership. The traditional organization of educational leadership is male-centered, presenting psychological and communicational challenges for women. Tedrow and Rhoads (1999) described it as a "complex language" which women are at a disadvantage for knowing or learning. Participants in the study conducted by Tedrow and Rhoads commented on the importance of respecting the "good ol'

boys and their power" (p.7). The sense of not belonging, which many women feel while trying

to negotiate male-dominated organizational structures, creates a communication barrier. The

communication challenge presents women with limited access to informal networks of

influential others (Tallerico, 2000). These cultural and organizational barriers leave women in

educational leadership working much harder and enduring much more psychologically than their

male counterparts.

In every stage of their careers, women typically maintain concurrent responsibilities in

the home. The extra expectations force women to consider the agendas of others, as well as their

own agenda. Also, the nurturing expectations placed on women in most cultures translate into a

more relational way of leading by women (Tedrow & Rhoads, 1999). The relational ways of

knowing and leading, developed in the home to achieve a nurturing environment, are carried

over into the career setting to achieve group harmony (Tedrow & Rhoads, 1999). In addition to

normal career pressures and concerns, women have greater psychological burdens placed on

them, causing them to spend "large amounts of time and energy simply trying to survive, when

they should be thriving" (Tedrow & Rhoads, 1999, p.9). Regardless of aspirations,

qualifications, and experience, women are lacking equity with men in leadership career

development.

The research related to women and leadership provide useful applications for various

organizations and for individuals as well. Many women, despite various barriers and challenges,

have been successful in achieving leadership positions. Nonetheless, the number of women in

executive leadership positions remains disproportionate (*Black Issues in Higher Education*,

2002). Although education is one of the primary female career fields, women in general, African

American women especially, are highly underrepresented in senior-level leadership positions of

four-year institutions (Adejokun, 1998). Somerville (1997) examined the data from Higher Education Information Survey reports regarding the demographic characteristics of those in leadership positions in two-year colleges. This examination revealed empirical evidence of the under representation of women and minorities in leadership positions in two-year public institutions (Somerville, 1997). Leadership in education is not a common thought for most minorities, including women (Adejokun, 1998). Grogan (1999) offered that women are over-represented in teaching and support positions and under-represented in leadership. The number of women in executive leadership has increased over time; however, the picture for minorities continues to be bleak. Figure 2 shows the racial makeup of executive leaders of community and technical colleges in the United States during the fall of 1999. White men dominated leadership positions, occupying over 70,000 positions. White women were second with over 60,000. Minority men and women combined accounted for fewer than 30,000 leadership positions.

The research on women and leadership provides both "popularized explanations" and "data-based explanations" (Northouse, 2001) for women's slow progress to executive leadership. The popularized reasons for women's absence from executive positions, as presented by Northouse, included lack of experience, lack of suitability for executive demands compared to men, lack of self-confidence, and insufficient qualifications (Northouse, 2001). The data-based reasons included higher standards of performance and effort demanded of women, lack of development opportunities, male prejudice, stereotyping, and work/home conflict (Northouse, 2001).
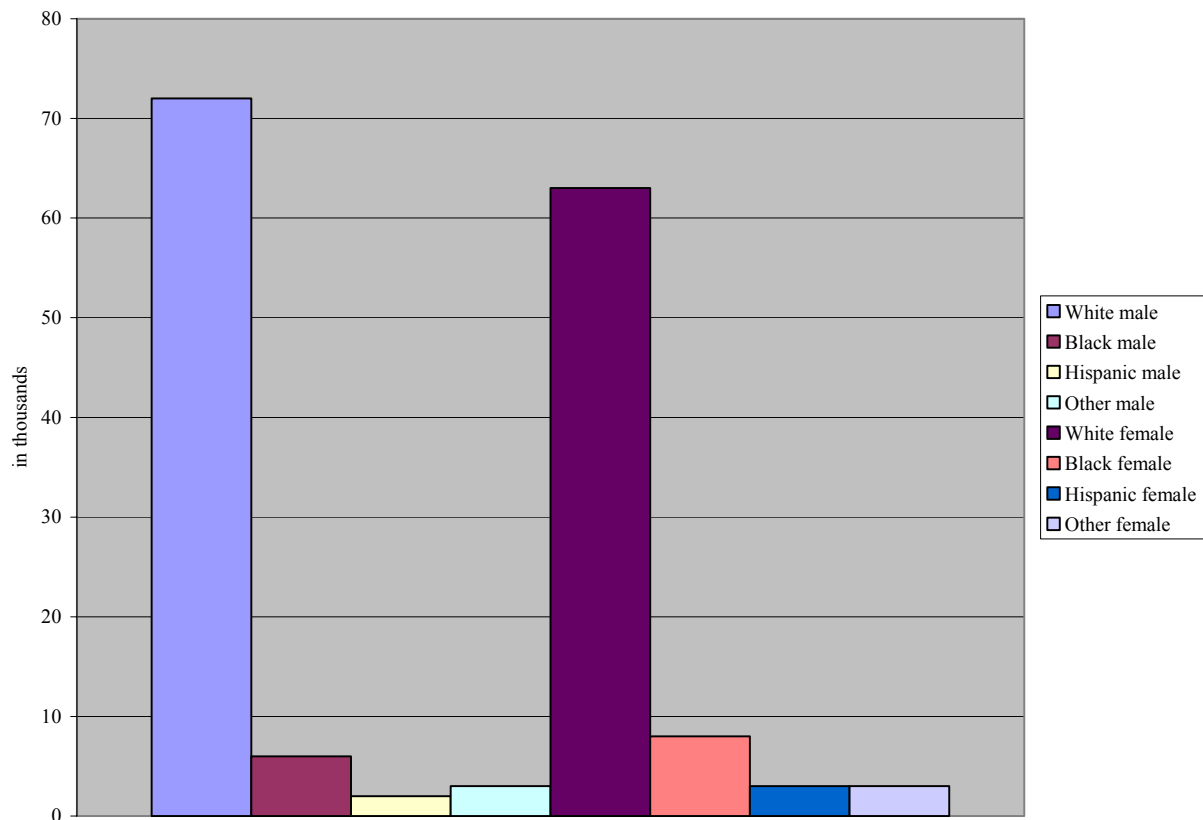
Figure 2 Snapshot of Executive Leadership in Community and Technical Colleges by Gender

Note. Figure 2 was developed by the researcher, based on data from the 2002 edition of the Digest of Education Statistics.

Statement of the Problem

The traditional organizational structure in educational leadership ignores gender as a cultural force in shaping organizational life. Women in educational leadership are constantly reacting to male dominated organizational contexts. Women, therefore, face greater psychological burdens and spend more time and energy to attain comparable career development as their male counterparts. Some research has been conducted related to the representation of women in executive leadership positions in educational leadership at the secondary level and a smaller amount at the community college level. However, there remains a gap between the

identification of the barriers that exist for women and practical solutions and/or challenges for change to occur. Despite barriers to becoming an executive leader, some women have risen to leadership positions in technical and community colleges. Of interest in this study was how some women, particularly African American women, managed to negotiate the organizational context of executive leadership in technical and community college education. Barriers faced by women in their career development as educational leaders were also identified and examined in this study.

Purpose

The purpose of this study was to identify and describe the dimensions of support necessary for women to be successful in attaining executive leadership positions in community and technical colleges.

Research Questions

The research questions guiding this study were:

1. What factors contributed to the perceptions of women in leadership positions regarding the support necessary in their career development?

2. What experiences were perceived as key factors in the career development of minority women in community and technical college leadership?

3. What key components were perceived as influential in the career development of women in community and technical college leadership?

4. What barriers did women in community and technical college leadership encounter in their career development?

Significance of the Study

Community and technical colleges have a significant population of women and minority students, faculty, and staff. As the community and technical colleges continue to grow in size and in competitiveness – both domestic and global – it is imperative that the diversity that exists in the student body and faculty is reflected in the executive leadership of the college. Research reveals that mentorship is an important component in the success of women and minorities (Enomoto, 2000). Women in educational leadership, therefore, are in a position to contribute to the success and career development of many students, faculty, and staff.

Studying the successful negotiation of the organizational context of executive leadership by women in community and technical colleges has implications for leadership theory, research, and practice. Although we are living in a modern, diverse world, the white male-dominated networks are still "alive and well" and are actively limiting the access of women and non-whites to senior-level executive leadership positions in community and technical colleges (Tallerico, 2000).

Women and minorities have been marginalized by white male dominated ideologies and practices (Tallerico, 2000). Examining the experiences and careers of successful women executive leaders will provide insight to educational leaders, researchers, and practitioners. This research identified the key factors of success for women in achieving executive leadership positions in community and technical college leadership. Identification of factors that contribute to success for some women informs possible strategies to aid future women and minority leaders in their career development. This information will assist leaders in the planning of staff development and training opportunities.

The feminist movement and research studies have partially addressed issues that concern white women and general representation in leadership (Parker, 2002). However, the values and experiences of white women leaders are not an adequate representation of the issues, values, and experiences of minority women, namely African American women. Yet, these values have shaped the feminine model of leadership (Parker, 2002). This study contributes to leadership theory regarding women's access to executive leadership positions, expanding the literature to address the unique experiences and challenges faced by minority women in community and technical colleges.

A review of the literature related to women in leadership, barriers encountered by women seeking leadership positions, and social theory on women's career development is provided in Chapter II. A description of the research methods used in this study and the survey development process is provided in Chapter III. Chapter IV is comprised of the research findings. Chapter V contains a discussion of the research findings and suggestions for further areas of research.

CHAPTER II

REVIEW OF RELATED LITERATURE

The purpose of this study was to identify and describe the dimensions of support necessary for women to be successful in attaining executive leadership positions in community and technical colleges. Executive leadership positions in education are historically positions filled by men. The number of women in similar positions remains disproportionate to the number of women employed in education. This study examined the experiences of female executive leaders in community and technical colleges. This examination provides an understanding of the barriers and challenges to career development faced by women in educational leadership. The under representation of women and minorities in educational leadership and the barriers that exist in women's career development is discussed through the literature related to social cognitive career development, the glass-ceiling, and other career development theories. The literature reviewed included articles, books, reviews of qualitative and quantitative studies, and reports in education. This review includes the following areas: (a) historical review of how women's career advancement has evolved over time; (b) social learning and career development theories; and (c) barriers to opportunities of women and minorities.

Historical Review of Women's Career Development

Chliwniak (1997) reported that women's presence is yet to be fully included in institutional culture of community and technical colleges. The institutional culture includes the curriculum, educational norms, faculty appointments, and higher educational leadership. Chliwniak also asserted that in institutions with male-dominated leadership, certain studies and

scholarship of women were marginalized. Likewise, pedagogical practices and tenure-track standards were void of women's input or experiences. This structure of the institution resulted in "stumbling blocks in the career paths of many women" (p. 3). The long line of patriarchal leadership has served to perpetuate masculine norms throughout the organizational structure and culture of educational leadership. The research on women in educational leadership is in its infancy. Early studies focused on comparing women administrators to male administrators (Grogan, 1999). As the research into women's personal experiences grows, the understanding of women's experiences will deepen and challenge the traditional approaches and organization of educational leadership.

Adejokun (1998) presented an African American's perspective of the pursuit of educational leadership positions. From his research and experiences, he deemed that leadership in education was not a career aspiration for most African Americans – men or women. Adejokun's view of educational leadership as a profession of burden, characterized by long hours, bureaucracy, anxiety, and stress was echoed in the research reported by Zirkle and Cotton (2001).

Throughout the various levels of education, women make up the majority of support staff, teachers, and assistants. Further up the organizational chart, however, the portrait of the leaders and decision makers reveals primarily white males. As reported by Grogan (1999), women are over-represented in teaching and under-represented in administration. By exploring women's career development in higher education, historically and currently, various career development components can be analyzed to determine the reasons for the lack of women in executive leadership positions, as well as identify the persistence factors that have served to maintain the lack of women in these positions (Chliwniak, 1997).

Silver (1976) outlined the "stages in career development for leadership in higher education" as teacher training, teaching, graduate training, entry level, and promotions to higher echelons (p. 7). Teacher training refers to the college years as a student, which are a formative part of career development. Socialization into the profession has its foundation in this stage of career development. The second stage, teaching, serves as a sorting point of the "upward mobile" individuals from those who will ultimately remain at the teaching level (Silver, 1976). Graduate training begins the socialization into leadership positions. Silver (1976) identified this stage as a "juncture at which some people elect a career in higher education while others return to school districts at a supervisory level" (p. 7). The fourth stage, entry-level positions as professor, supervisor or administrator, begins the actual practice of leadership. The final stage, promotion to successively higher echelons, may span a few years to a decade or more (Silver, 1976).

In 2001, Zirkle and Cotton asserted that future educational leaders would come primarily from the teaching field. Teachers at community and technical colleges, as well as instructional faculty at four-year institutions, must hold at least a master's degree. *Black Issues in Higher Education* (2002) reported that 84.6% of women presidents had doctoral degrees. Of the women college presidents reported in *Black Issues in Higher Education* 35.2% were tenured faculty in their immediate prior position. Obviously, education and teacher training have remained key factors in women's career development.

Morrison, White, Van Velsor and The Center for Creative Leadership (1987) conducted a study related to career advancement of women in America's largest corporations. In summary, the effective career development components were identified as help from above (i.e. supervisors), track record of achievement, desire to succeed, ability to manage subordinates,

ability to take career risks, and ability to be tough, decisive, and demanding. In the study, 100%

of the participants cited "help from above" as a key factor in their career development. The help

ranged from detailed advice to general encouragement. The majority of the participants received

help from levels above their immediate boss. In business as well as in education, researchers

report that good relationships with upper-level executives provide a needed edge for women

aspiring to leadership positions (Morrison et al., 1987; Pence, 1995). Allen-Brown (1998)

reported that role models and mentors are a necessity for women to achieve in academia.

Minority women, especially, reported being unable to establish relationships that encourage

interpersonal support. Allen-Brown also reported that it was difficult for most African-

American women to find individuals who were interested in their research area or who were

willing to work collaboratively with them (p. 177). African-American women, in seeking

mentoring relationships, are faced with "both gender discrimination and racism" (p. 178). They

face the challenges and barriers associated with being women, along with racial discrimination

and inequities (Allen-Brown, 1998; Enomoto, 2000). The traditional, white, male ways of

association and support seem to present barriers that African-American women cannot possibly

negotiate without a mentor that belongs to the system (Enomoto, 2000; Tedrow & Rhoads,

1999).

Morrison et al. (1987) reported that the majority of success cases "always stood out" (p.

27). The performances of the women in those success stories, as producers and managers, were

key in establishing a track record of achievements. Their achievements, then, were a major

component in their career advancement. Women who have achieved executive leadership

positions in higher education institutions reported an experience which is vastly different from

their male counterparts. According to Tedrow and Rhoads (1999), women who achieved senior-

level leadership positions reported feeling a loss of confidence over the years of their career development. They finally "made it"; however, they never mentored anyone and faced high levels of stress. Tallerico's study supported this finding related to the experiences of women striving for access to the superintendency (2000). Adejokun (1998) reported minority faculty in higher education feeling unappreciated and unsupported in their career developments. Additionally, female faculty reported feeling that their contributions and research efforts were devalued and viewed as peripheral. Adejokun concluded that achievement was key, but did not come without a price.

In the study by Morrison et al., over 84% of study participants noted that their personal desire to succeed was a key factor in their career development. This desire was demonstrated by working hard, seizing more responsibility, and persisting until the job was done. These women described themselves as "willing to pay the price" (Morrison et al., 1987, p.28). Determination was an intrinsic factor that motivated these women to persevere through the gender biases and discrimination to achieve their goals.

Part of the over all "track record" for women in leadership is their ability to manage subordinates (Morrison et al., 1987). It is this responsibility in which their people involvement skills are most exhibited (Morrison et al., 1987). Women are typically expected to be secretaries or assistants, but not in charge. African-American women in particular, reported instances of being "mistaken" for the subordinate in the office or organization, simply because of their race and gender (Enomoto, 2000). Men generally found it more difficult to have a woman as a supervisor. In some cases, other women are difficult subordinates for female leaders. The relational aspects of leadership, which are typically attributed to women, are a key aspect of managing subordinates.

The willingness to take career risks, along with the ability to be tough, decisive, and demanding were part of the leadership career factors for which women received extensive criticism (Morrison et al., 1987). For a woman to desire and actively seek a leadership role is often denoted as being masculine. Women in leadership roles, particularly single women, have their sexuality questioned because it is seen as contrary to the feminine role society expects for and from women. For many women, career success was accompanied by a stigma from men in the workplace as well as socially.

Women seeking to develop and advance in their careers are faced with the additional challenge of concurrently maintaining the home, raising children, and nurturing an intimate relationship (Morrison et al., 1987). When parenting needs, or other family considerations arise, the woman was expected to sacrifice and make those needs a priority. While men who were "supportive" in the home by cooking, cleaning, etc., were given praise, women were naturally expected to take on such responsibilities.

Historically, in the home, in the neighborhood, on television, and in the printed media, a consistent stereotyped image was projected – that women were housewives, that they were passive and un-aspiring, but supportive, and appreciative whereas men were daring, venturesome, active, and intelligent (Silver, 1976). These sex role differentiations were taught and reinforced through the "hidden curriculum" (Silver, 1976). The "hidden curriculum" pertained to the gender roles that were taught through the examples in textbooks and teachers' high expectations of boys, versus low expectations of girls. Boys were taught and challenged to be tough risk-takers, while girls were trained in the art of submissiveness. Some components of the hidden curriculum persist in current educational systems. To some degree, the curriculum

continues to be comprised of communicated behavioral norms and individual status in the school culture (Orenstein, 2002).

Over the past three decades, career development for women has evolved somewhat. The idea and acceptance of women participating in the workforce has become the norm. Women in the workforce continue to be heavily concentrated in services, secretarial and teaching positions. The number of women managers has steadily increased; however, the number of women senior level executives remains low and disproportionate to the number of men in similar positions. Current career development for women continues to be largely dependent on education level, with mentoring and networking as other key components to success.

<div align="center">Social Learning and Career Development Theories</div>

Career choices are influenced by the socialization a person receives. An examination of social learning theory, Bandura's social learning theory, social cognitive career theory, status attainment theory, career aspiration theory, self-efficacy, and other career development theories is presented, and related to women's career development.

Social Learning Theory

Social learning theory, a psychological theory, developed as an attempt to integrate the two modern trends in American psychology – the stimulus-response theories and the cognitive theories (Rotter, 1982). Social learning theory deals with human social behavior (Rotter, 1982). In summary of Rotter's principles of social learning theory, the unit of investigation for the study of personality is the interaction of the individual and his or her environment. The explanation of personality constructs in social learning theory is not dependent on constructs in any other field. The personality constructs describe behavior, which has a directional aspect and is influenced by the importance of goals, reinforcements, and the person's anticipation or expectancy that these

goals will be attained. Social learning theory, therefore, describes the connection of personality to career choices and how personality is affected by the environment and expectations of individuals.

Bandura's Social Learning Theory

Albert Bandura, a renowned researcher and theoretician, focused on modeling, rather than mimicking, particularly as related to social behavior. Bandura served as a proponent of social cognitive theory (Evans, 1989). Bandura's original use of the term social learning described an approach to personality with a strong emphasis on learning by imitation (Rotter, 1982). His view later changed to de-emphasize drive reduction and to give a central place to expectancies and other cognitive variables (Evans, 1989; Rotter, 1982). General social learning theory is a systematic outlining of various principles, however Bandura's approach does not "provide a comprehensive and systematic basis for describing individual differences in generalized terms and the relationships among these relatively stable, generalized characteristics" (Rotter, 1982, p. 4). Bandura's social learning theory presented "a cognitive interactional model of human functioning" (Evans 1989, p. 10). Personal factors, behavior, and the environment interact as determinants of human functioning. Summarizing Bandura's theory, Evans (1989) asserted, "psychosocial functioning is improved by altering faulty thought patterns, by increasing behavioral competencies and skills, and by altering adverse social conditions" (p. 10).

Personal factors, such as ability and confidence, impact social functioning. Ability is "generally conceptualized as a fixed attribute that is possessed" (Evans, 1989, p. 53). Confidence, on the other hand, may increase or decrease in level for an individual, depending on

the situation and/or circumstances. These personal factors contribute to human functioning in social situations.

Behavior encompasses both active and reactive competencies and skills. Society is full of behavioral norms. Social learning requires that an individual demonstrate appropriate behavior in various settings. Behavior competencies and skills are generally learned through imitation and, in some cases, through social mishaps (Evans, 1989).

Environment plays a critical part in social learning. An individual is generally more comfortable and confident in familiar environments. Adverse conditions require adjustments in personal and/or behavioral factors. These factors interact at various levels to produce human functioning (Evans, 1989).

Social Cognitive Career Theory

As a career theory, social cognitive theory presents a view of people as driven by a combination of internal and external forces. Bandura (1986) identified basic "capabilities" that guide human functioning and the nature of people. Bandura first asserted that people have the capability to use symbols to "give meaning, form, and continuance to the experiences they have lived through" (p. 18). Secondly, thought processes are able to serve as a source of human accomplishment; however, when based on misconceptions, these processes become a source of human failing (Bandura, 1986). Symbolic activity serves as the foundation for "intentional and purposive action" (p. 19). Motivation and guidance come as the individual exercises forethought in actions to be taken. Thirdly, the "capacity to learn by observation enables people to acquire rules for generating and regulating behavioral patterns without having to form them gradually by tedious trial and error" (Bandura, 1986, p. 19). Developing and refining observational skills is vital for career attainment and development. Self-directed and self-reflective capabilities are

also recognized as vital traits in career development. Self-directedness exhibits influence over internal standards as well as external environments. Reflection allows "people to act on their thoughts and to later analyze how well their thoughts served them in managing events" (Bandura, 1986, p. 21). The self-reflective capability incorporates aspects of self-efficacy, one's judgment of what one can do with the skills one possesses (Bandura, 1986).

Status Attainment Theory

Our society judges status largely on the basis of education and work achievements. Higher levels of education have always been more respected and viewed as the key to success, particularly for women and minorities. Educational attainment has generally been related to income, occupational prestige and employment history (Luster & McAdoo, 1996). Young children, when asked, "what do you want to be when you grow up", will chime in "a doctor or a lawyer." These occupations rank high on the pay scale, require high levels of education, and carry social and career prestige.

In addition to educational attainment, status variables such as ethnicity/race and gender substantially influence professional advancement (Wyche & Graves, 1992). In business, as well as education, women and minorities face barriers and challenges as they attempt to advance in their careers. Pratto, Stallworth, Sidanius and Siers (1997) asserted, "because men have greater status and power, they allocate occupations and the prestige and pay associated with them to favor themselves over women" (p. 37). The degree of power exercised within groups is directly related to the status of an individual. In a woman's career development, attainment of executive leadership positions is accompanied by increased status and the power to affect change. An increase in the number of women attaining executive leadership positions in community and

technical colleges can positively affect the status given to the experiences and contributions of women.

Career Aspiration Theory

The various career aspiration theories focus primarily on adolescents and college freshmen (Trice & Hughes, 1995). For children, interests play a major role in the selection and rejection of "what they want to be when they grow up." Family configuration has also been identified as influential in the selection and rejection of careers and occupations (Trice & Hughes, 1995). Thirdly, identification with a parent's work is presented as significant to career aspirations (Trice & Hughes, 1995). No one source of career aspirations has been fully confirmed by any theorists. Interests, family configuration, and identification with a parent seem to be the recurring components in career aspiration theory (Hart, 1990; Trice & Hughes, 1995).

Personal interests develop during childhood and change or grow as influenced by time and experiences. Boys are generally socialized to be interested in being adventurous, risk-taking, and in charge. Accordingly, boys aspire to careers that are traditionally male-oriented. Girls are generally socialized to be gentle, kind, and caring. Girls, then, aspire to careers that are typically maternal in nature (Hart, 1990). Childhood interests (or play) help to shape and influence career aspirations later in life.

Family configuration generally fits one of four categories: single parent, two-parent, guardian, and foster care (Trice & Hughes, 1995). Hart (1990) reported that children of working mothers typically chose more male-oriented occupations than children of nonworking mothers.

The impact of a parent's "significant other's background" has also been identified to influence adolescents toward either educational or occupational ambitions (Hart, 1990). The tendency of children to aspire to the careers of their parents could be related to simple imitation

or more profound identification. Neither factor has been established empirically. Trice and

Tillapaugh (1991) connected children's aspirations to a parent's occupation or to their perception

of their parent's level of job satisfaction. Career aspirations, then, are influenced by the

perceived satisfaction of the parent's occupation.

Self-efficacy

"Do as I say, not as I do" is an old saying that reflects the fact that people often do not

behave optimally, even though they know what to do (Bandura, 1986). Self-referent thought,

according to Bandura, "mediates the relationship between knowledge and action" (1986, p. 390).

People's motivation and behavior are affected by their judgment of their capabilities. Self-

efficacy, then "involves a generative capability in which cognitive, social, and behavioral sub-

skills must be organized into integrated courses of action to serve innumerable purposes"

(Bandura, 1986, p. 391).

Self-efficacy is concerned with one's judgments of what one can do with whatever skills

one possesses, not the skills themselves. Bandura proposed that knowledge about efficacy is

based on four principle sources of information: performance attainment, vicarious experiences

of observing others, verbal persuasion and social influences, and physiological states from which

capableness, strength, and vulnerability are judged as a dysfunction (Bandura, 1986).

Repeated successes assist in developing a strong sense of self-efficacy. Once developed,

a strong sense of self-efficacy is not likely to be affected by an occasional failure. People who

have a strong sense of self-efficacy look to other factors as the cause(s) of any failure. They

typically blame the situation, lack of effort, or poor strategy (Bandura, 1986). This process leads

to evaluation of effort and strategies and the determination that more effort and/or better

strategies will produce different outcomes in the future. Conversely, repeated failures can serve

to lower one's sense of self-efficacy. If the failure is not viewed in a causal sense with other factors (effort, situation, or strategy), it can affect how new experiences are viewed and approached. Attainment, then, is an influential information source for self-efficacy. The more one attains, the greater the sense of self-efficacy that success is possible (Bandura, 1986).

Personal attainment was presented by Bandura (1986) as influential in the development of self-efficacy. Likewise, the experiences of others can be an impactful influence. Observing the successes of others can serve as motivation and confidence, particularly if competence level is seen as comparable. By the same token, failures of others can lead to self-doubt and ultimately a lower sense of self-efficacy. As people live vicariously through the experiences of others, their own performance can be significantly heightened or lowered, depending on the nature of observed experiences.

Relationships can play an important role in self-efficacy. Self-doubters can be encouraged, even persuaded, that they can succeed in a particular task and thereby persist when they would have given up otherwise. A certain level of trust in the persuader must exist (Bandura, 1986). This trust can be reinforced if the persuasion causes persistence, which leads to success. However, if the persuasion causes persistence, which leads to failure, the persuader can be discredited, as the sense of self-efficacy is negatively affected.

Judgments on capabilities are informed by physiological states (Bandura, 1986). Tension or agitation tends to debilitate performance. Therefore, thoughts of failure or ineptitude cause stress and lead to the feared outcome becoming a reality. On the contrary, confidence results when people find themselves at peace and calm regarding a task. Physiological states can also be connected to previous experiences. Feelings of stress in a similar previous task that was successful can serve as a positive sign when it occurs again.

Self-efficacy is a concept that applies to every theory of career development. Hart (1990) reported that "self-concept" was determined to be a greater influence on the career aspirations of White students than on those of African American students. The optimal self-concept of African American students in the study was reportedly impeded by discriminatory traditions (Hart, 1990, p. 46).

Other career development theories

There are four other dominant theories on career development. Holland's theory of careers and the theory of work adjustment are two dominant theories related to "person-environment fit (P-E)" (Hackett, 1995). The developmental learning theory of career development and social learning theory are two dominant theories related to the process of career decision-making (Hackett, 1995).

According to Hackett (1995), Holland's theory and the theory of work adjustment are both concerned with the content of career choices. As "person-environment fit (P-E)" theories, both models posit that the level of congruence between personality and the demands of an occupational environment determine success, satisfaction, and longevity in the occupation.

The developmental learning theory of career development, similar to the social learning theory, focuses on the process, rather than the outcome of a career choice (Hackett, 1995). The developmental learning theory of career development highlights the specific tasks an individual encounters in developing a vocational identity. Job training, opportunities, social policies, family and community resources, educational systems, and other environmental forces impact career choices and behavior (Hackett, 1995).

Contingency theory and path-goal theory are leadership theories that are relevant to the career development of women in educational leadership. Contingency theory is a "leader-

match" theory which suggests that a leader's effectiveness depends on how well style fits the context (Northouse, 2001). Northouse (2001) described this theory of leadership as "concerned with styles and situations" (p. 76). Path-goal theory of leadership is related to "how leaders motivate subordinates to accomplish designated goals" (Northouse, 2001, p. 89). "Path-goal theory is designed to explain how leaders can help subordinates along the path to their goals by selecting specific behaviors that are best suited to subordinates' needs and to the situation" (Northouse, 2001, p. 90).

Theoretical Application to Women's Career Development and Advancement

Career development, as defined by Hackett (1995), "is the preparation for, choice of, entry into, and adjustment to work throughout the life span" (p. 232). Career theorists have always acknowledged the notion of the person as an active agent in shaping career directions. Only recently, though, have the potential contributions of cognitive psychology to career development began to be formally acknowledged (Hackett, 1995). Research related to cognitive mechanisms, particularly perceived self-efficacy, has increasingly produced empirical evidence that efficacy beliefs exert a strong, direct influence on career decision-making and career choices.

Women's career development served as the original subject for application of Bandura's theory of self-efficacy to career development (Hackett, 1995). Bandura's application revealed that experiences during the formative period of life leave their mark on personal efficacy (Bandura, 1986). Self-efficacy impacted the choices made and the successes attained, thereby affecting the future direction of a life course. Career interests and pursuits of women are constricted by their self-beliefs that traditionally male occupations are inappropriate for them because they lack the capabilities to master the requisite skills (Bandura, 1986). Studies

revealed that males perceived themselves to be equally efficacious for traditional male and female vocations (Bandura, 1986). Women, however, judged themselves highly efficacious only for the types of occupations traditionally held by women (Bandura, 1986). Females, therefore, prematurely closed off viable nontraditional career options due to weak efficacy beliefs (Hackett, 1995). Hence, women are more likely to end up on a less-satisfying, lower-paid career path.

Collective educational and occupational behaviors translate into higher status for women (Twenge, 2001). Women's educational attainment and work roles serve as indicators of women's status in the labor force. As women grow in educational attainment and status, women's roles are viewed differently. Twenge (2001) asserted the importance in noting that women are not just earning college and graduate degrees, but that they are increasingly working in jobs requiring these degrees, rather than marrying young and devoting their lives to domestic concerns (p. 136).

The importance of educational attainment to the career development of women has been a common theme over the past three decades (Morrison et al, 1987; Silver, 1976). Most women in senior-level leadership have attained advanced degrees. In 1998, 84.6% of the women college presidents had doctoral degrees (*Black Issues in Higher Education*, 2002). In the same year, 79.4% of the men college presidents had doctoral degrees. Since there were fewer women college presidents than men, these statistics support research findings that women are required to attain higher levels of education and training than their male counterparts in order to attain comparable positions.

Barriers to Opportunities of Women and Minorities

The noted under-representation of women and minorities in executive leadership has prompted some researchers to "try to identify the reasons" for the absence of women,

particularly African-American women, in leadership positions (Strachan, 1993). In this effort, the organizational structuring of educational institutions, women's experiences, and barriers to women's career development have been examined. The research concerning African-American women in leadership and in education leadership, identify several challenges and barriers faced by women. The barriers can be categorized as organizational and societal.

Organizational Barriers

Organizational barriers relate to the traditional structure of education leadership. The identified barriers address the structure of education leadership, the language, and the psychological factors that serve to limit the access of women and minorities while preserving that of white males. Executive leadership in education is a top-down model. The upper levels train subsequent levels through mentoring, opportunities to complete tasks, and assignment of leadership roles on various occasions. Since most of the executive leadership positions are occupied by white males, they naturally look for subordinates who are similar to themselves to fill vacancies and to take on special assignments. This organizational structure presents a major barrier for women and minorities, as they are overlooked for mentoring opportunities or not considered for special assignments (Tallerico, 2000).

Societal Barriers

The societal barriers encompass the occupational and sex-role stereotypes. These have varied over the years, according to the ethical climate of the times; however, the effects have remained the same – limiting and/or blocking the leadership access of women and minorities (Grogan, 1999).

Tallerico (2000) reported professional norms, current practices, and access to informal networks as organizational barriers which facilitate the access of non-minority males and limit

the access of others. Tedrow and Rhoads (1999) described the organization in education administration as male-centered. This applied to the structure of opportunities, advocacy of subordinates, absence/presence of role models, and institutional screening procedures (Tallerico, 2000). Regardless of the effort put forth, desire, and sacrifice, women still attain only a fraction of the success and achievement of their white, male counterparts. The American Association of Community Colleges (2004) reported that only 18% of community college chief executives are women. The traditional system encourages white men to believe that leadership is their place (Tallerico, 2000). The system, thereby, maintains the privilege and elite status of those who fit the traditional profile of educational leader.

Allen-Brown (1998) identified a supportive environment as a key factor to achievement in education leadership. The traditional system provided this support for white males, but not for women and non-whites. Various national policies such as Title IX of the Education Amendments, the Civil Rights Act of 1991, and the Nontraditional Employment for Women Act of 1991, have been developed and implemented to increase opportunities for women and minorities. However, policies cannot provide the mentorship, encouragement, and support necessary to achieve career advancement in leadership. In the study conducted by Vaughan (1989), women reported "the infamous 'old boys' network' as presenting barriers" (p. 21).

In "Notes to Athene: Mentoring Relationships for Women of Color," Enomoto (2000), described ways in which mentoring provided means for African-American women to gain entry and access into education leadership. Through mentoring, African-American women gained the necessary tools to negotiate their way in the white, male-dominated organizational structure that exists in education leadership. Simply put, a mentor is a trusted friend, counselor, and advocate. Recognizing potential in a protégé, the mentor usually initiates the relationship. There are times,

however, when the protégé takes the lead and initiates learning and being counseled by an individual, thereby developing a mentoring relationship. African-American women also report facing the "good ol' boy network" and the power it asserts (Enomoto, 2000; Tedrow & Rhoads, 1999). These traditional, white, male ways of association and support present barriers that African-American women cannot possibly negotiate without a mentor that belongs to the system.

Allen-Brown (1998) reported that role models and mentors being a necessity for women to achieve in academia. Minority women especially reported being unable to establish relationships that encourage interpersonal support (Allen-Brown, 1998). Vaughan (1989) also identified mentors and role models as an important influence for the careers of women. Although some women experienced "negative role models," they were able to use this obstacle as encouragement in their pursuit of career advancement (Allen-Brown, 1998).

Enomoto (2000) asserted that in addition to the organizational barriers of lack of access to networking and mentoring and traditional male-dominated structures, women are also faced with societal barriers. Society has always associated certain roles and responsibilities of the home with being "women's work." In the workplace as well, women are faced with occupational stereotypes. For a woman to desire and actively seek a leadership role is often denoted as being masculine. Women in leadership roles, particularly single women, have their sexuality questioned because it is seen as contrary to the feminine role society expects for and from women. Women are typically expected to be secretaries or assistants, but not in charge. African-American women in particular, report instances of being "mistaken" for the subordinate in the office or organization, simply because of their race and gender (Enomoto, 2000; Vaughan, 1989). Even in situations where white men are not in leadership roles, African-American

28

women report still being viewed as minorities and therefore considered to be inferior (Enomoto, 2000).

Women seeking to develop and advance in their careers are faced with the additional challenge of concurrently maintaining the home. When parenting needs or other family considerations arise, the woman is expected to sacrifice and make those needs a priority. While men who are "supportive" in the home by cooking, cleaning, etc., are given praise, women are naturally expected to take on such responsibilities. Most women experience an "interrupted career" because of child rearing (Vaughan, 1989).

The research concerning African-American women in educational leadership positions is mostly concentrated on the elementary and secondary levels. Post-secondary research has focused primarily on the four-year institution, with the community college growing in examination. The technical college remains an unexplored area in the research. This gap in the research studies and identified populations serve the significance of this study.

The Glass Ceiling

The term "glass ceiling" appeared in the literature in 1986 to describe the barriers women face as they approach the top of the corporate hierarchy. Cotter, Hermsen, Ovadia and Van Neman warned of labeling every inequality as a glass ceiling effect (2001). Cotter et al. (2001) identified glass-ceiling inequalities as those that represented a gender or racial difference. These inequalities: are not explained by other job-relevant characteristics of the employee; are greater at higher levels than at lower levels; affect the chances of advancements into higher levels; and increase over the course of a career. Initial reports of the glass ceiling phenomenon reported that women have a full view of the top of the organization, but they bump into an invisible shield of resistance and can rise no further (Scherr, 1995). Although the "top of the organization" is

represented by different titles in various career fields, it has still remained basically unreachable by women as well as minorities (Federal Glass Ceiling Commission (FGCC), 1995; Morrison et al., 1987).

Research into the glass ceiling phenomenon revealed that men were eight times more likely to be Chief Executive Officers than women (FGCC, 1995). The Commission's report further revealed that where women and minorities were in high level positions, their compensation averaged at least 20% lower than white, non-Hispanic males.

The glass ceiling barriers identified through research are related to societal barriers, internal organizational barriers, and governmental barriers (FGCC, 1995; Morrison et al., 1987; Scherr, 1995). Societal barriers are those that developed during the evolution of societies. They are based on perceptions and therefore perpetuate the existence of the barriers, as various beliefs are translated into behaviors, attitudes, and biases (FGCC, 1995). Orenstein (2002) reported that a girl's passage into adolescence is generally "marked by a loss of confidence in herself and her abilities, especially in math and science" (p. 38). Although women's roles in society seem to be evolving, girls today continue to fall into traditional patterns of low self-image, self-doubt, and self-censorship of their creative and intellectual potential (Orenstein, 2002). The educational system is a major player in perpetuating gender bias (Orenstein, 2002; Silver, 1976). Schools are where children are socialized into their place in the hierarchy of larger society (Orenstein, 2002). This socialization also works to maintain the status quo for minorities (Brown, 2001; Stith, 1996).

Women who persist through education and training still face organizational barriers in the workplace (FGCC, 1995; Kerka, 1999; Morrison et al., 1987). Organizational structures in the private sector, in governmental agencies, and in educational administration are white male-

oriented (FGCC, 1995; Morrison et al., 1987; Scherr, 1995; Stith, 1996). Women and minorities continuously reported feeling isolation as well as added pressure to succeed (Kerka, 1999; Morrison et al., 1987). Stith (1996) reported that African Americans in particular face deplorable conditions as they pursue equal employment opportunities in business. "There is still the good ole boy feeling in senior management" (Morrison et al., 1987, p.17).

Some organizational barriers have been addressed by legislation regarding education, training, and employment. There have been several legislative efforts over the past three decades aimed at addressing the under-representation of women and minorities in "nontraditional occupations (NTOs)" (Kerka, 1999). A delineation of specific legislation and its intended purpose is provided in Appendix A. Despite the legislative initiatives, women and minorities continue to be under-represented in senior-level, executive leadership positions in private, for-profit corporations, as well as in education. The Federal Glass Ceiling Commission was established as a result of the Civil Rights Act of 1991, with the charge of identifying advancement barriers that exist for minority men and all women (FGCC, 1995). The commission was also mandated to identify the "successful practices and policies that have led to the advancement of minority men and all women into decision-making positions in the private sector" (FGCC, 1995, p. 3).

The report by the FGCC revealed that societal barriers, structural barriers, and governmental barriers exist, blocking the career advancement of women and minorities. These barriers are consistent with the research over the past two decades (e.g. Allen-Brown, 1998; Enomoto, 2000; Silver, 1976; Tallerico, 2000; Tedrow & Rhoads, 1999). The Commission's report of effective strategies showed that the awareness of the advancement barriers has not diminished and the efforts to address them have increased. The heightened awareness and the

31

positive practices toward change are benefits for women and minorities in the corporate setting as well as in education.

SUMMARY

The literature on women in leadership and women's career development demonstrated that the career development of women in leadership was largely shaped by academic achievement, mentors, and desire to succeed (Enomoto, 2000; Morrison et. al, 1987; Silver, 1976; Zirkle and Cotton, 2001). Desire, as related to self-efficacy, was addressed through the literature on social cognitive career development theories. The work by Bandura (1986) and Rotter (1982) demonstrated that internal and external forces drive career development. Personal factors, such as confidence and ability had an impact on social learning and development (Evans, 1989). Likewise, observational skills were also identified as vital in career development (Bandura, 1986).

Historically, the literature presented women's roles in the home and in the workplace as evolving. However, women's career development continued to be hindered by organizational and societal barriers. The top-down structure of informal networks comprised the structure of organizations' executive leadership and presented barriers for women seeking to achieve executive leadership positions. Enomoto (2000) reported that without a mentor who belonged to the system, it was nearly impossible for women to break into the informal networks. The women who were successful in attaining executive leadership positions reported having to work harder than their male counterparts to maintain their positions, while simultaneously assuming responsibility for the home. Vaughn (1989) reported that most women seeking to attain executive leadership positions experienced interruptions in their careers because of child rearing – an issue not encountered by men seeking similar positions. Other organizational barriers were

addressed by legislation related to education, training, and employment. Effective strategies to address the barriers to women's advancement continued to be sought after in both the corporate and the educational setting (FGCC, 1995).

This study was designed to identify and describe the dimensions of support necessary for women to be successful in attaining executive leadership positions in community and technical colleges. Chapter III presents the methodology and survey development process used for this study. Chapter IV presents the research findings of the survey. The research findings are discussed in Chapter V and suggestions for further research are offered.

CHAPTER III

METHODOLOGY

The purpose of this study was to identify and describe the dimensions of support necessary for women to be successful in attaining executive leadership positions in community and technical colleges. This chapter describes the procedures and methods used to answer the following questions:

1. What factors contributed to the dimensions of support necessary in attaining executive leadership positions?

2. What experiences are unique for minority women in community and technical college leadership?

3. What key components defined the learning process of women in community and technical college leadership?

4. What barriers did women in community and technical college leadership encounter?

This chapter is organized into six sections (1) conceptual framework, (2) instrumentation, (3) study sample, (4) data collection, (5) data analysis, and (6) limitations and delimitations.

Conceptual Framework

Women in leadership served as the guiding conceptual framework for this study. Few scientific studies of differences between men and women in leadership were done prior to the 1970s (Chemers, 2000). Research by Bowman, Worthy, and Greyser (1965) revealed the strong belief that women were unsuited for managerial roles and would make poor leaders. Research by Bass, Krusell, and Alexander (1971) indicated that men felt that women lacked career

orientation, were undependable, and emotionally unstable – making them unsuitable for management. Schein (1973) found that stereotypes of men were more similar to general perceptions about the characteristics of a manager, than the stereotypes of women. The research through the 1980s and 1990s demonstrated no consistent pattern of differences in leadership by men and women (Chemers, 2000). Chemers also concluded, although "women showed few differences from men in actual leadership behavior, they were still susceptible to the impediments created by negative stereotypes about female leadership" (p. 34).

This study built on previous research and sought to describe and explain key factors that contributed to women achieving executive leadership positions in community and technical colleges. Although the number of women in executive leadership positions remains disproportionately low, there are some successes. Some African American women in particular have learned to negotiate the organizational, relational, and personal barriers identified by various research studies. From the experiences of these and other women, this study will serve to inform organizations and individuals on strategies and key factors which have contributed to their success.

Instrumentation

This was a cross-sectional, descriptive study, using survey methodology, to identify and describe the dimensions of support necessary for women to be successful in attaining executive leadership positions in technical and community colleges. The study also identified barriers encountered by women pursuing executive leadership positions. This study was conducted using a researcher-designed survey instrument. The instrument was developed to contain items related to the career development of women in educational leadership as well as the barriers encountered by these women. A survey instrument was appropriate for this study as it allowed tabulation and

identification of key contributing factors of the phenomenon in question. There were five major steps in the development process of the survey instrument: concept clarification, development and refinement of survey items, review of survey instrumentation, distribution, and data collection.

Concept Clarification

The related literature, as well as preliminary interviews with two executive leaders in a technical college system, served to inform the concepts related to the career development of women in executive leadership. One of the interviewees was a Director of Teaching Support and the second was a Vice President of Instruction. A review of the literature and the preliminary interviews resulted in the identification of a list of concepts related to the successful career development of women in executive leadership. Table 1 lists the various concepts and related indicators. The social and relational stereotypes listed in the table can be further categorized as 'barriers' faced by women. Mentoring and networking fit into a 'support' category.

Table 1

Concepts and Related Indicators

CONCEPTS	INDICATORS
Social stereotypes	Women as homemakers, submissive roles
Relational stereotypes	Women as relational leaders
Mentoring	Existence of supportive professional relationships
Networking	Access to traditional networks

The survey instrument was constructed to 1) identify barriers that hinder women from achieving executive leadership positions in community and technical colleges; and 2) measure the dimensions of support necessary for women to be successful in achieving executive leadership positions in community and technical colleges. Examining women's career development provided clarification of the specific dimensions of support that have served to help

particular women to be successful. Literature about the "Glass Ceiling" documents barriers to career advancement of women and minorities in business and certain levels of education (Allen-Brown, 1998; FGCC, 1995). Measuring the barrier construct identified the barriers that are specific to women and minorities in community and technical colleges. This information added to the literature and inform the staff development and training needs of executive leaders in community and technical colleges.

Development and Refinement of Survey Items

The second step, development and refinement of survey items, began with the researcher constructing a draft containing four sections: a brief introductory paragraph, 25 scaled items, 2 open response items, and a background information section. The categories for the scaled items were not labeled, explicitly; however the related items were grouped together: encouragement from family, friends, community; mentoring; networking; encouragement from upper levels of leadership; encouragement from peers. The open response items followed the scaled items. The survey ended with the questions related to background information and a brief thank-you message.

The survey was designed to identify factors that contributed to the career development of women in executive leadership in postsecondary community and technical colleges. Some of the survey items also addressed the barriers faced by women in their career development. The statement format was chosen because it allows for the most concise method of expressing the statements of interest. The Likert scale (strongly disagree to strongly agree) was employed for the scaled items (Swisher, Beckstead, & Bebeau, 2004). A 'yes/no' format and 'importance scale' were also considered. The Likert scale was decided upon to employ parallel statements throughout the instrument and to aid in clarity of the statements.

Review of Survey Instrumentation

From July 2003 until October 2003, an expert panel critically reviewed the survey instrument. The panel consisted of experts in the areas of adult education, leadership, and survey development. The instrument contained 25 items to be responded to on a scale of 1 (not important) to 6 (very important), indicating importance to career development. There were also two (2) open response items and three (3) background questions.

Careful consideration was given to all of the input received from the expert panel. Priority was given to the items that were 'questioned' by more than one person. As a result of the critiques, some items were reworded; however, the number of items remained in tact. The scaled items were changed to the 'strongly disagree to strongly agree' scale, for consistency in wording and parallel construction of the scaled items. An N/A column was also added; the open response section was reduced to two questions; and two items were added to the background information section. An example of the response scale as it appeared on the final instrument is illustrated in Table 2. The open response items were related to the respondent's decision to pursue executive leadership, influential person(s) or event(s), and noted barriers that may not have been addressed in the scale items. The background questions were used to gather information on participants' age, ethnicity, highest level of education, job title(s), and future aspirations.

A cohort of eight colleagues of the researcher completed the draft survey. The survey, a letter and a stamped envelope was mailed to each colleague. There were no further suggestions for clarity on any of the scaled items or on the survey in general. The surveys were all returned using the envelopes provided. This activity assisted in determining the collection procedures and expectations for response time.

Table 2

Survey Instrument Response Scale

Please indicate the level to which you agree that each of the following items was a key factor in your career development.	Strongly ⇔ Strongly Disagree Agree	NA v
1. *Family members' high academic expectations* were an important factor in my career development.	1 2 3 4 5 6	
2. *Community support (friends, neighbors, church members, teachers, coaches)* was an important factor in my career development.	1 2 3 4 5 6	

The extensive process of developing the survey instrument included a thorough review of the literature, interviews with women in executive leadership positions, numerous reviews by experts in leadership and survey development, and comprehensive reviews by the researcher and the dissertation supervisor. This process served to clarify the language of the instrument and to insure the content validity of the instrument. The developed survey instrument, the letter to the participants, and the Human Subjects Research Application were submitted to the Office of the Vice President for Research at the University of Georgia in February 2004. The research study received approval in April 2004. A copy of the final survey instrument can be found in Appendix B.

Distribution

Salant and Dillman's (1994) suggested survey procedure was employed to collect data. This procedure involves four mailings: 1) advance-notice letter, 2) personalized letter with questionnaire and return envelope, 3) follow-up postcard, and 4) replacement questionnaire to non-respondents (Salant and Dillman, 1994). Salant and Dillman (1994) reported that this four-step process yields a 50% to 60% response rate from general populations, while "more specialized populations are likely to respond in higher proportions" (p. 138).

Data Collection

For this study, selected participants were sent a personalized letter, a questionnaire, and a stamped return envelope. One month later, the non-respondents were sent a new personalized cover letter, a replacement survey, and another stamped return envelope.

Study Sample

The population of interest was women serving as presidents or vice-presidents in community and technical colleges in the Southeastern United States – Georgia, South Carolina, North Carolina, Tennessee and Florida. A database of 229 women serving in these positions at the time the study was created by the researcher, using the 2003 edition of the Higher Education Directory. This study used a single-stage sampling procedure. The participants for this study were chosen purposefully and conveniently from the 2003 Higher Education Directory. A letter of introduction, a copy of the survey instrument, and a stamped return envelope were mailed to each of the 229 women identified as serving as presidents or vice-presidents in community and technical colleges in Georgia, South Carolina, North Carolina, Tennessee and Florida. A copy of the introduction letter is presented in Appendix C. The first mailing yielded 109 completed surveys – 48% of the original mailing. Seven surveys were returned because the person was no longer in the position. One month after the initial mailing, the 115 non respondents were sent a new personalized cover letter, a replacement questionnaire, and a stamped return envelope. A copy of the follow-up cover letter is presented in Appendix D. From the second mailing, 38 (33%) additional completed surveys were received and 1 additional survey was returned because the person was no longer in the position. In total, 147 completed surveys were received. This represents a 64% response rate. As stated by Salant and Dillman (1994), this is an above-average response rate.

Validity

Validity of a survey instrument addresses whether or not the instrument measured what it was intended to measure (Huck, Cormier and Bounds, 1974). Validity for the survey developed by the researcher was established through the review process by the expert panel and the completion of the draft by the researcher's colleagues – women working in various capacities of leadership in technical colleges. None of the women who completed the draft of the survey expressed confusion related to the statement of the survey items.

Reliability

Reliability refers to the extent to which research findings can be replicated consistently (Huck et. al, 1974; Merriam, 1998). In a reliable survey, the answers will differ because the respondents had different opinions, not because the survey was confusing or had multiple interpretations (SPSS®, 1999). Reliability of the survey developed by the researcher was supported by the panel review process. The panel assisted in ensuring that the survey items were clear and concise. The process of refining the statement of the survey items also aided in ensuring the reliability of the instrument.

Correlations provide valuable information in regards to statistical analyses of data. Summary statistics also serve to inform the reliability of a survey (SPSS®, 1999). The SPSS® Base 10 Applications Guide (1999) listed Cronbach's alpha as the most common summary statistic used to report reliability. The reliability analysis in SPSS® was used to compute Cronbach's alpha for the survey developed by the researcher. Cronbach's alpha was computed to be .83, further supporting the reliability of the survey developed by the researcher.

Data Analysis

The statistical software package, SPSS® 10.0, was used to organize, tabulate, and analyze the survey results. Prior to mailing, each return envelope was numbered to coincide with the participant's number in the database. As the return envelopes were received, the number was checked off and no longer associated with the respondents' identity. This portion of the coding served only to prevent duplicate mailings. The completed surveys were numbered in the order they were received. A coding guide was developed by the researcher to explain how responses were coded and entered into the SPSS® program. Also, all responses to the open response questions were entered and referenced by the survey number. A copy of the study survey instrument coding guide is presented in Appendix E.

The data for this study were analyzed in order to identify key factors in the career development of the participants. The selected statistical analyses were employed to produce the output needed to address the research questions:

1. What factors contributed to the perceptions of women in leadership positions regarding the support necessary in their career development?

2. What experiences were perceived as key factors in the career development of minority women in community and technical college leadership?

3. What key components were perceived as influential in the career development of women in community and technical college leadership?

4. What barriers did women in community and technical college leadership encounter in their career development?

The first research question "What factors contributed to the perceptions of women in leadership positions regarding the support necessary in their career development?" was

addressed by performing an exploratory factor analysis on the career development survey items. The mean response to each scaled item was computed and compared by ethnicity to address the second research question, "What experiences were perceived as key factors in the career development of minority women in community and technical college leadership?" The third research question "What key components were perceived as influential in the career development of women in community and technical college leadership?" was addressed through the mean analysis and through analysis of the responses to the second open response item, "Who/What was most influential in your career development?" The fourth research question "What barriers did women in community and technical college leadership encounter in their career development?" was addressed through the results of the exploratory factor analysis and by analyzing the responses to the third open response item, "Have there been any barriers to your career development that the survey questions did not address?_____ If so, please explain."

Factor analysis is a widely used multivariate statistical technique in psychology and the social sciences (Kline, 1994). The statistical techniques used in factor analysis simplify complex sets of data (Kline, 1994). Factor analysis permits the reduction of a larger number of interrelated variables to a smaller number of hidden dimensions (Tinsley & Tinsley, 1987). The smaller number of dimensions represents the factors or hypothetical constructs that explain the maximum amount of common variance in a correlation matrix (Cattell, 1952; Tinsley & Tinsley, 1987). Multivariate techniques are appropriate either for multivariate prediction or for multivariate covariance analysis. Multivariate prediction is performed by regression analysis, discriminant factor analysis, and multivariate analysis of variance (MANOVA) (Tinsley & Tinsley, 1987). These processes are employed when investigators have information available

from multiple predictors on a single criterion (Tinsley & Tinsley, 1987). Factor analytic

techniques are intended for multivariate covariance analysis (Kline, 1994; Tinsley & Tinsley,

1987). Variance can be classified as "common variance or unique variance" (Tinsley & Tinsley,

1987, p. 415). Common variance is associated with more than one item and unique variance is

unique to a specific item (Tinsley & Tinsley, 1987). Factor analysis analyzes only common

variance which is distributed among several factors (Tinsley & Tinsley, 1987). This process is

employed to study the structure of a set of variables, when investigators desire to reduce the

common variance to a smaller number of conceptually significant variables (Tinsley & Tinsley,

1987).

Tinsley and Tinsley (1987) encourage basic consideration of the following when

employing factor analysis: composition of the data matrix, sample size, the measure of

association, independence of the measures, and significance of the matrix. For proper data

matrix composition, the items to be analyzed must have been administered to all respondents

(Tinsley & Tinsley, 1987). There is no set rule regarding sample size. In all statistical analyses,

it is generally thought that the larger the sample, the better (Cattell, 1952; Kline, 1994; Tinsley &

Tinsley, 1987). The correlation coefficient is the most commonly used measure of association

(Tinsley & Tinsley, 1987). The value of the correlation coefficient indicates the strength of the

correlation between the items or variables and the criterion under consideration. In order to not

artificially increase the correlations of variables, their measures should be independent (Tinsley

& Tinsley, 1987). Variables that are highly correlated should be evaluated for independence

when they appear together on the same factor. The data matrix can be tested for significance by

using Bartlett's chi-square test (Kline, 1994; Tinsley & Tinsley, 1987). A statistically significant

chi-square was reported by Tinsley and Tinsley (1987) to represent a minimum requirement for performing a factor analysis.

After it is determined that a set of data is a good candidate for factor analysis, additional considerations should be given to the method of factor extraction, how many factors to rotate and what rotation procedure to employ (Tinsley & Tinsley, 1987). When the variables to be analyzed represent populations of interest, a descriptive extraction method is used. This method is related to exploratory factor analysis. Cattell (1952) and Tinsley and Tinsley (1987) reported that most factor extraction procedures, including the descriptive extraction method, were actually designed for exploratory analyses. Confirmatory factor analysis employs an inferential extraction method, which permits generalization from a sample to a population (Tinsley & Tinsley, 1987). The goal of exploratory factor analysis is to identify significant factors; therefore, the number of factors to be extracted is unknown from the beginning. In confirmatory factor analysis, the investigator must specify the number of factors before factoring (Tinsley & Tinsley, 1987). Kaiser's criterion has been seen as having the most merit as related to identifying the number of factors to rotate (Tinsley & Tinsley, 1987). Kaiser's criterion "specifies that only factors with an eigen value (sum of the squared factor loadings) of 1.0 or more should be retained in the factor analysis" (Tinsley & Tinsley, 1987, p. 420). Such factors have "alpha reliability" and are thereby generalizable (Tinsley & Tinsley, 1987, p. 420). Investigators perform factor rotation to determine which factor solution to report and to clarify the factor structure by assessing the spreading of the variance across the factors (Tinsley & Tinsley, 1987). The most common rotations are orthogonal rotation and varimax rotation (Kline, 1994). Orthogonal rotation is used when the factors are considered uncorrelated. Varimax

rotation is used to reapportion the variance among factors that are equal in importance (Tinsley & Tinsley, 1987).

Factor analysis groups variables together in ways which permit investigators to synthesize new entities (Cattell, 1952). Factor loadings and examinations of correlations matrices are used when variables and factors are known. For this study, the intent was to identify factors. Therefore, exploratory factor analysis was employed. The goal of exploratory factor analysis is to explore the field, "to discover the main constructs or dimensions" (Kline, 1994, p. 7). For this study, the goal was to identify and describe the dimensions of support necessary for women, (especially African American women) to be successful in attaining executive leadership positions.

SPSS® 10.0 statistical software package was used to organize and analyze the data. Descriptive statistics were analyzed on the career development items and on the biographical data. An exploratory factor analysis was conducted on the twenty-five (25) career development items, producing the chi-square value and the Varimax rotation. The Kaiser-Meyer-Olkin Test showed that the items were worth factoring. Kaiser (1974) gave the following guidelines for deciding if a matrix is a good candidate for factoring:

.90s – marvelous

.80s – meritorious

.70s – middling

.60s – mediocre

.50s – miserable

< .50 – unacceptable

The Kaiser-Meyer-Olkin Test result for the survey instrument used to collect data for this study was .728, demonstrating that the matrix for the career development items could be used for factoring.

Limitations and Delimitations

The following limitations were recognized and may have implications for the study's results and interpretation.

1. The extent to which community and technical college executive leaders responded honestly to all questions.

2. The extent to which items on the survey instrument were interpreted similarly by all respondents.

This study was delimited to community and technical colleges in Georgia, South Carolina, North Carolina, Tennessee and Florida.

Summary

The purpose of this study was to identify and describe the dimensions of support necessary for women to be successful in attaining executive leadership positions in community and technical colleges. This study was completed using an instrument developed by the researcher. Data related to career development were collected from women serving as presidents and vice presidents in community and technical colleges in Georgia, South Carolina, North Carolina, Tennessee and Florida. The data were analyzed using factor analytic procedures. Demographic data were also collected and analyzed. This chapter outlined the procedures and methods used to complete this study, discussing the conceptual framework, instrumentation, study sample, data collection, data analysis, and the limitations of the study.

The following chapters provide a more detailed presentation of the data analysis and the specific findings that resulted from the analysis.

CHAPTER IV

ANALYSIS OF DATA

The purpose of this study was to identify and describe the dimensions of support

necessary for women to be successful in attaining executive leadership positions in community

and technical colleges. This chapter presents the results of the statistical analyses described in

Chapter III. The results of the analyses are presented as related to the four research questions:

1. What factors contributed to the perceptions of women in leadership positions regarding

the support necessary in their career development?

2. What experiences were perceived as key factors in the career development of minority

women in community and technical college leadership?

3. What key components were perceived as influential in the career development of

women in community and technical college leadership?

4. What barriers did women in community and technical college leadership encounter in

their career development?

Of the 147 respondents who completed the optional questions related to background 124,

or 84.9%, were Caucasian, 14, or 9.6% were African American, and 1 or .7% was Asian. The

data related to ethnicity are summarized in Figure 3. The data from those responding to the

optional question related to year of birth yielded that the average age of women serving as

presidents and vice-presidents in community and technical colleges in the Southeastern United

States was 53.3. The minimum age was 33 and the maximum reported age was 69.

Ethnicity of Respondents
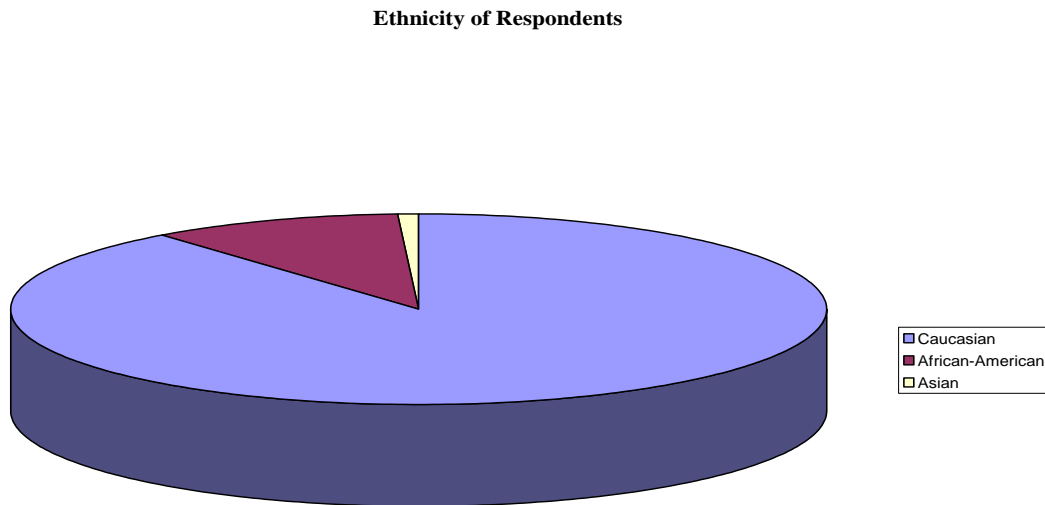
Figure 3 Report of Ethnicity of Respondents

Of those responding to the optional question related to level of education, 14 or 9.6% had a

Bachelor's degree, 45 or 30.8% had a Master's degree, 7 or 4.8% were ABD, 13 or 8.9% had a

Specialist degree, and 62 or 42.5% had a Doctoral degree. The data related to level of education

is summarized in Figure 4.

The respondents were also asked to indicate the position in which they were serving. Of

those responding, 29 or 19.9% were presidents and 111 or 76% were vice-presidents.

Caucasians serving as presidents totaled 27 or 19.4% while African Americans accounted for

2.2% (2 positions). The one Asian respondent was serving as a vice president. Of the other vice

presidents responding, 97 or 69.8% were Caucasian and 11 or 7.9% were African American.
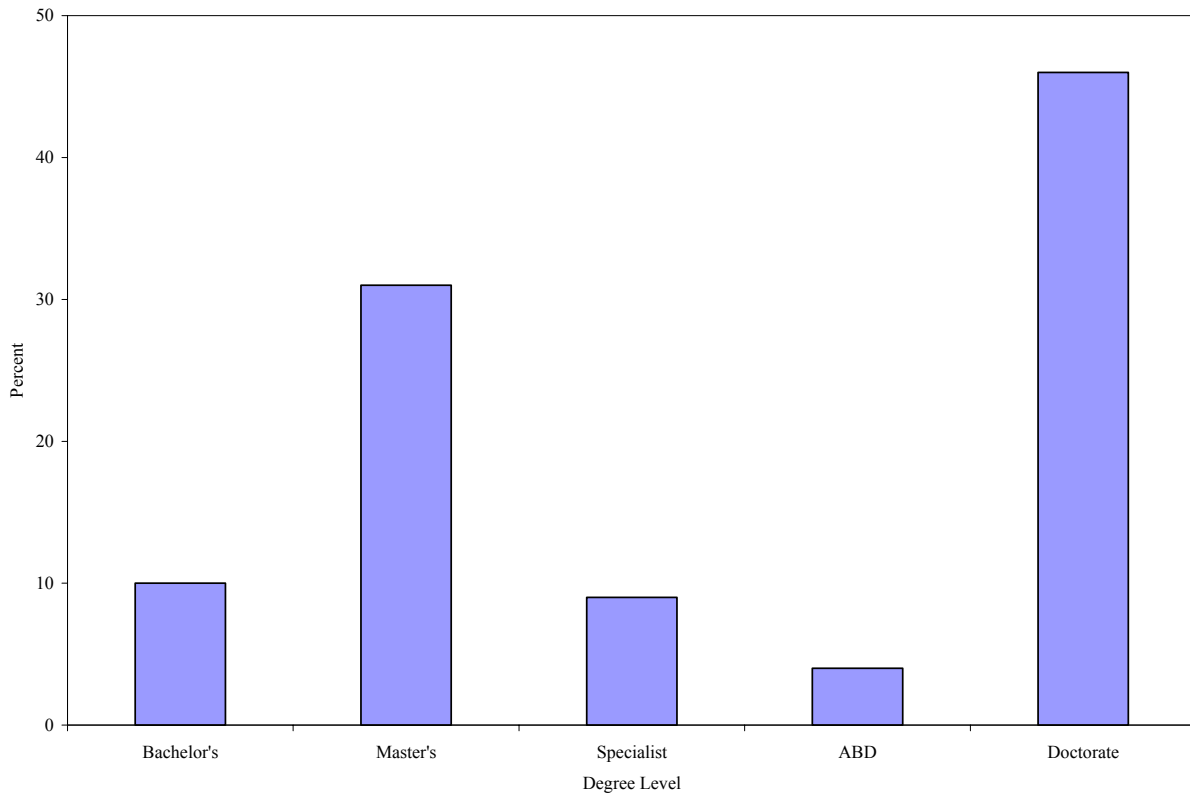
Figure 4 Educational Level of Respondents

The responses to the 25 scaled items of the survey were organized using SPSS®. The mean and standard deviation of the scaled items are presented in Table 3. The mean for each item is presented on a scale of 1 (strongly disagree) to 6 (strongly agree). The mean response to the career development items presented in the survey ranged from 2.32 to 4.99. 'A mentor of a different race' received the lowest mean score from the respondents. 'Participation in staff development opportunities' and 'Attending professional conferences' received the highest mean score from the respondents.

Table 3

Mean and Standard Deviation of the Scaled Career Development Items

Item #	Question Statement (… was/were an important factor in my career development)	Mean	Standard Deviation
1	Family members' high academic expectations	4.44	1.64
2	Community support	3.97	1.53
3	A male mentor	4.31	1.72
4	A female mentor	3.76	1.83
5	A mentor of the same race	3.76	2.04
6	A mentor of a different race	2.32	1.95
7	A significant, long term mentoring relationship with the same person	4.11	1.83
8	Inclusion in informal networks	4.59	1.18
9	A network composed of mostly women	2.93	1.59
10	A network composed of mostly men	3.09	1.62
11	A network composed of men and women equally	4.01	1.57
12	Senior leadership taking an interest in my advancement	4.98	1.36
13	Overcoming stereotyping and preconceptions of women in my workplace	3.93	1.60
14	Overcoming stereotyping and preconceptions of women in my home life	2.45	1.57
15	Receipt of recognition from my department head	4.04	1.68
16	Receipt of recognition from peers of my race	3.28	1.75
17	Receipt of recognition from peers of different races	2.91	1.83
18	Receipt of support from my department head	4.29	1.64
19	Receipt of support from peers of my race	3.26	1.83
20	Receipt of support from peers of different races	3.11	1.82
21	Participation in staff development opportunities	4.99	1.08
22	Attending professional conferences	4.99	1.05
23	Membership in professional organizations early in my career	4.61	1.27
24	Membership in professional organizations later in my career	4.59	1.11
25	The ability/willingness to relocate	3.37	2.14

Findings Related to Research Question #1

The first research question asked, "What factors contributed to the perceptions of women in leadership positions regarding the support necessary in their career development?"

Exploratory Factor Analysis was performed in order to study the relationship patterns among the 25 career development items. The objective was to discover a simple grouping by reducing the career development items to a smaller number of dimensions called factors (Tinsley & Tinsley, 1987). A Varimax rotation was used in seven terminal factor solutions. The seven-factor solution was selected. This solution captured 65% of the variance observed in the 25 career development items with .30 as the loading criterion level.

One of the career development items, item 25, did not load on any of the seven factors at the .30 criterion level. The factor loading was highest on factor one, Peer Support, for item 25 with a loading value of .188. Item 25 addressed the ability/willingness to relocate.

Factor I: Peer Support

The six career development items with primary loading on Factor I consisted mostly of items related to recognition and support from peers. Table 4 provides variable loadings and the overall item mean for the career development items for Factor I. The item mean is on a scale of 1 (strongly disagree) to 6 (strongly agree) in regards to the importance of the item as related to the respondents' career development.

Table 4

Factor I: Peer Support

Item #	Dimensions of Support	Loading Value	Item Mean
17	Receipt of recognition from peers of different races	.847	2.91
20	Receipt of support from peers of different races	.843	3.11
19	Receipt of support from peers of my race	.821	3.26
16	Receipt of recognition from peers of my race	.742	3.28
6	Mentor of a different race	.352	2.32

Factor I includes dimensions of support received from peers. Peer support contributes to the successful career development of women in community and technical college executive leadership.

Factor II: Professional Support

The four career development items with primary loading on Factor II related to professional activities such as membership in organizations and attending conferences. Table 5 provides variable loadings and item means for Factor II. The item mean is on a scale of 1 (strongly disagree) to 6 (strongly agree) in regards to the importance of the item as related to the respondents' career development.

Table 5

Factor II: Professional Support

Item #	Dimensions of Support	Loading Value	Item Mean
23	Membership in professional organizations	.804	4.61
21	Participating in staff development	.796	4.99
24	Membership in professional organizations later in career	.763	4.59
22	Attending professional conferences	.760	4.99

Factor II includes career development activities initiated by the executive leader. Membership in professional organizations, participation in staff development, and attendance of professional conferences are important aspects of career development. These activities provide valuable opportunities for networking and professional growth.

Factor III: Departmental Support

There were three career development items with primary loadings on Factor III. These items related to support and recognition from a department head. Table 6 provides the variable loadings and item means for Factor III. The item mean is on a scale of 1 (strongly disagree) to 6

(strongly agree) in regards to the importance of the item as related to the respondents' career development.

Factor III includes dimensions of support provided to the rising executive leader by the department head or other member of senior leadership. Support of this type includes recognition of contributions to the department, as well as opportunities to demonstrate talents and abilities.

Table 6

Factor III: Departmental Support

Item #	Dimensions of Support	Loading Value	Item Mean
18	Receipt of support from department head	.941	4.29
15	Receipt of recognition from department head	.825	4.04
12	Senior leadership taking an interest in my advancement	.441	4.98

Factor IV: Mentoring Support

The five career development items with primary loading on Factor IV were related to various aspects of mentoring. Table 7 provides variable loadings and item means for Factor IV. The item mean is on a scale of 1 (strongly disagree) to 6 (strongly agree) in regards to the importance of the item as related to the respondents' career development.

Factor IV includes dimensions of support related to mentoring by males, long-term mentoring relationships, and mentors of the same race. Also, networks composed of men and women were important in the career development of women in community and technical college executive leadership.

Table 7

Factor IV: Mentoring Support

Item #	Dimensions of Support	Loading Value	Item Mean
3	A male mentor	.754	4.31
7	A significant long-term mentoring relationship	.689	4.11
5	A mentor of same race	.573	3.76
10	A network composed of men and women equally	.358	3.09
13	Overcoming stereotyping and preconceptions of women in workplace	.328	3.93

Factor V: Home and Community Support

The three career development items with primary loading on Factor V were related to support and expectations from family members and community members. Table 8 provides variable loadings and item means for Factor V. The item mean is on a scale of 1 (strongly disagree) to 6 (strongly agree) in regards to the importance of the item as related to the respondents' career development.

Table 8

Factor V: Home and Community Support

Item #	Dimensions of Support	Loading Value	Item Mean
1	Family members' high academic expectations	.733	4.44
2	Community support (friends, neighbors, coaches, church members)	.667	3.97
14	Overcoming stereotyping and preconceptions of women in home life	.330	2.45

Factor V includes dimensions of support related to high academic expectations from family members and support from friends, coaches, and church members. Supportive home and community environments provide the foundation for women seeking executive leadership

positions to overcome stereotyping and preconceptions of women and women's roles in the home and in society.

Factor VI: Gender Support

The two career development items with primary loading on Factor VI were related to networks composed of women and mentoring by women. Table 9 provides variable loadings and item means for Factor VI. The item mean is on a scale of 1 (strongly disagree) to 6 (strongly agree) in regards to the importance of the item as related to the respondents' career development.

Table 9

Factor VI: Gender Support

Item #	Dimensions of Support	Loading Value	Item Mean
9	Network composed of mostly women	.631	2.93
4	Female mentors	.527	3.76

Factor VI includes dimensions of support related to mentoring by other women and networks composed of mostly women. Women mentors are a valuable resource for women aspiring to executive leadership. Women mentors are in a position to guide other women in making wise career decisions and avoiding career pitfalls. Networks composed of mostly women are a source of encouragement and inspiration for aspiring executive leaders.

Factor VII: Networking Support

The two career development items with primary loading on Factor VII were related to networks composed of men and women equally and informal networks. Table 10 provides variable loadings and item means for Factor VII. The item mean is on a scale of 1 (strongly disagree) to 6 (strongly agree) in regards to the importance of the item as related to the respondents' career development.

Table 10

Factor VII: Networking Support

Item #	Dimensions of Support	Loading Value	Item Mean
11	Network composed of men and women equally	.768	4.01
8	Inclusion in informal networks	.364	4.59

Factor VII includes dimensions of support related to networks with men and women membership, as well as informal networks. Networks composed of men and women equally provide increased opportunities for women to learn to negotiate the organizational structure of executive leadership in community and technical colleges. These larger networks lead to inclusion in informal networks. Most promotions within an institution originate from informal networks. As women gain inclusion in these networks, they are more likely to be in position for greater consideration for executive leadership positions.

A mean-item-mean was calculated for each of the seven dimensions of support for the purpose of gaining a deeper understanding of the relative importance of each of the seven dimensions. This was accomplished by calculating the mean of each of the means within each factor. The results of the mean-item-mean, on a scale of 1 (strongly disagree) to 6 (strongly agree) demonstrated the highest mean-item-mean of 4.8 for Factor II, Professional Support. The lowest mean-item-mean of 2.98 was found in Factor I, Peer Support. Table 11 provides the mean-item-mean for the seven dimensions of support necessary for women to attain executive leadership positions. The mean-item-mean results demonstrate the average level to which the respondents agree that the career development items were key factors in career development. The resulting dimensions of support are all perceived as key factors in the career development of the respondents.

Table 11

Mean-Item-Mean for Seven Dimensions of Support

Factor	Name	Mean-Item-Mean
I	Peer Support	2.98
II	Professional Support	4.80
III	Departmental Support	4.44
IV	Mentoring Support	3.84
V	Home and Community Support	3.62
VI	Gender Support	3.35
VII	Networking Support	4.30

Findings Related to Research Question #2

The second research question asked, "What experiences were perceived as key factors in the career development of minority women in community and technical college leadership?" The mean of the 25 career development items ranged from 2.32 to 4.99 on a 1 (strongly disagree) to 6 (strongly agree) point scale. Twelve of the 25 career development items demonstrated a mean at or above 4.0. Nine of the 25 career development items demonstrated a mean between 3.99 and 3.0. Four of the career development items demonstrated a mean below 3.0. A complete rank order listing of the career development items is presented in Table 12.

Table 12 shows that participating in staff development activities (#21), attending professional conferences (#22), having a member of senior leadership take an interest in their advancement (#12), and networking (#11) received the highest mean response from the participants. Following professional activities, career development items related to community support (#2) and mentoring(#'s 4 and 5) had the next highest mean response. The career development items with the lowest mean response were related to networks composed mostly of women (#9) and support from individuals of a different race (#6).

Table 12

Rank Order Listing of Career Development Items

Rank	Item #	Item	M	SD
1	21	Participation in staff development opportunities	4.99	1.08
2	22	Attending professional conferences	4.99	1.05
3	12	Senior leadership taking an interest in my advancement	4.98	1.36
4	23	Membership in professional organizations early in my career	4.61	1.27
5	8	Inclusion in informal networks	4.59	1.18
6	24	Membership in professional organizations later in my career	4.59	1.11
7	1	Family members' high academic expectations	4.44	1.64
8	3	A male mentor	4.31	1.72
9	18	Receipt of support from my department head	4.29	1.64
10	7	A significant, long term mentoring relationship with the same person (~5 or more years)	4.11	1.83
11	15	Receipt of recognition from my department head	4.04	1.68
12	11	A network composed of men and women equally	4.01	1.57
13	2	Community support (friends, neighbors, church members, teachers, coaches)	3.97	1.53
14	13	Overcoming stereotyping and preconceptions of women in my workplace	3.93	1.6
15	4	A female mentor	3.76	1.83
16	5	A mentor of the same race	3.76	2.04
17	25	The ability/willingness to relocate	3.37	2.14
18	16	Receipt of recognition from peers of my race	3.28	1.75
19	19	Receipt of support from peers of my race	3.26	1.83
20	20	Receipt of support from peers of different races	3.11	1.82
21	10	A network composed of mostly men	3.09	1.62
22	9	A network composed of mostly women	2.93	1.59
23	17	Receipt of recognition from peers of different races	2.91	1.83
24	14	Overcoming stereotyping and preconceptions of women in my home life	2.45	1.57
25	6	A mentor of a different race	2.32	1.95

The career development items were also analyzed in regards to ethnicity. The mean response by Caucasians was within one standard deviation of the mean for each item. African Americans responded less than one standard deviation of the mean on items 8, 12, 15, 21, and 24. These items, inclusion in informal networks, senior leadership taking an interest in their advancement, receipt of recognition from department head, and membership in professional organizations were perceived as key factors in the career development of Caucasian women. African American women agreed less often that these items were key factors in their career development. The mean response by African Americans was within one standard deviation of the mean on items 1, 2, 3, 4, 5, 6, 9, 13, 14, 16, 17, 19, and 20. Family expectations, community support, mentors, overcoming stereotyping and preconceptions, and peer support were perceived as key factors in career development more often by African Americans than by Caucasians. A network composed of mostly men was perceived as more influential in the career development of Caucasian women than that of African American women. However, a male mentor was perceived as a key factor more often for African American women. Caucasian women were accepted into the networks more readily than African American women. Table 13 contains a summary of the means by ethnicity for each career development item. The item mean is on a scale of 1 (strongly disagree) to 6 (strongly agree) in regards to the item as a key factor in the respondents' career development.

Table 13

Rank Order Listing of Career Development Items by Ethnicity

Rank	Item #	Item	Total Mean	Caucasian Mean	African-American Mean	Asian Mean
1	21	Participation in staff development opportunities	4.99	5.04	4.64	4.00
2	22	Attending professional conferences	4.99	5.01	4.86	4.00
3	12	Senior leadership taking an interest in my advancement	4.98	5.05	4.29	6.00
4	23	Membership in professional organizations early in my career	4.61	4.61	4.57	5.00
5	8	Inclusion in informal netwoks	4.59	4.65	4.14	4.00
6	24	Membership in professional organizations early in my career	4.59	4.66	4.07	3.00
7	1	Family members' high academic expectations	4.44	4.40	4.79	5.00
8	3	A male mentor	4.31	4.26	4.71	5.00
9	18	Receipt of support from my department head	4.29	4.29	4.21	5.00
10	7	A significant, long term mentoring relationship with the same person (~5 or more years)	4.11	4.14	3.93	3.00
11	15	Receipt of recognition from my department head	4.04	4.07	3.71	5.00
12	11	A network composed of men and women equally	4.01	4.02	3.86	5.00
13	2	Community support (friends, neighbors, church members, teachers, coaches)	3.97	3.93	4.36	4.00
14	13	Overcoming stereotyping and preconceptions of women in my workplace	3.93	3.90	4.29	3.00
15	4	A female mentor	3.76	3.71	4.07	5.00
16	5	A mentor of the same race	3.76	3.74	4.21	.00
17	25	The ability/willingness to relocate	3.37	3.40	3.29	1.00
18	16	Receipt of recognition from peers of my race	3.28	3.25	3.79	.00
19	19	Receipt of support from peers of my race	3.26	3.22	3.93	.00
20	20	Receipt of support from peers of different races	3.11	3.09	3.50	.00
21	10	A network composed of mostly men	3.09	3.13	2.93	1.00
22	9	A network composed of mostly women	2.93	2.90	3.36	1.00
23	17	Receipt of recognition from peers of different races	2.91	2.86	3.50	.00
24	14	Overcoming stereotyping and preconceptions of women in my home life	2.45	2.42	2.79	1.00
25	6	A mentor of a different race	2.32	2.22	3.36	.00

Findings Related to Research Question #3

The third research question asked, "What key components were perceived as influential in the career development of women in community and technical college leadership?" The career development item means presented in Table 3 demonstrated that participating in staff development activities, attending professional conferences, having a member of senior leadership take an interest in their advancement, and networking received the highest mean response from the participants.

The comments submitted in regards to the first open response item, "What triggerd your decision to pursue a career in executive leadership?" and the second open response item, "Who/What was most influential in your career development?" provided express examples of the components that influenced the career development. The responses further demonstrated that the motivation for career development of women in community and technical college leadership were influenced by guidance from senior leadership, encouragement and guidance by family members, examples set by mentors, and the respondents' "desire to grow and make a difference."

Thirty-six percent of the responses to the second open response question recognized members of the senior administration and leadership team for teaching them, believing in them, and providing opportunities for them to prove their skills. Thirty-three percent of the responses attributed their learning process to family values and work ethic which were instilled in them from an early age. The confidence and support received from spouses and parents were reported as invaluable motivators to success. Sixteen percent of the responses attributed their learning to mentor relationships. Mentors were identified as role models and counselors in the education process as well as in the work environment. Twelve percent of the responses attributed their

learning to their intrinsic desire to better themselves and to make a difference in the education of others. Of this 12%, several respondents identified themselves as risk takers, indicating that learning sometimes occurs as a result of individual choices and sacrifices. The remaining 3% of respondents identified leadership institutes and peer support as the key components in their learning. A summary of the key components perceived as influential in the learning process of women in community and technical college leadership is provided in Table 14.

Table 14

Key Components Perceived as Influential in the Learning Process

Key Component	Respondents Identifying Component
Guidance by Senior Leadership	36%
Family Members	33%
Mentors	16%
Personal Desire	12%
Leadership Seminars and Peers	3%

Findings Related to Research Question #4

The fourth research question asked, "What barriers did women in community and technical college leadership encounter in their career development?" The career development item means presented in Table 11 showed that career development items with the lowest mean response were related to networks composed mostly of women and support from individuals of a different race. This examination shows both gender and racial barriers for women seeking executive leadership positions in community and technical colleges. While networks composed mostly of women were sources of encouragement, the lack of connection into the informal networks, which included men, proved to be a barrier for some women. The participants also reported race to be a barrier in relation to gaining access to informal networks and ultimately executive leadership positions.

The responses to the third open response item, "Have there been any barriers to your career development that the survey questions did not address?___ If so, please explain," were analyzed to further address the fourth research question. Of those responding to the third open response item, 78% identified specific barriers and 22% indicated that no barriers were encountered in their career development. The identified barriers were related to household responsibilities, gender discrimination or bias, office politics, self doubt, racial discrimination, and age discrimination. Table 15 provides a summary of the identified barriers encountered by women in community and technical college leadership.

Table 15

Identified Barriers

Identified Barrier	Respondents Identifying Barrier
Family/Household Responsibilities	24%
Gender Discrimination/Bias	17%
Office Politics	16%
Self Doubt	13%
Racial Discrimination	5%
Age Discrimination	5%

Twenty-four percent of the respondents identified family or household responsibilities as a barrier encountered at some point in their career development. Some of the respondents were single mothers attempting to "manage a household while pursuing a career." Others were balancing responsibilities for elderly parents or disabled children, thereby "limiting time and mobility" as resources in their career development.

Seventeen percent of the respondents cited gender discrimination or bias as a barrier encountered in their career development. In some cases, male administrators "delayed leadership opportunities," supporting other men pursuing executive leadership both professionally and financially. The "financial enhancements for male managers/leaders were

greater than those offered for females." It was reported that "women are held to a higher

standard (morals) than men" and were at times "harassed by male superiors." Some of the

respondents also encountered gender bias in the home from non-supportive husbands.

Sixteen percent of the respondents identified "office politics" as a barrier encountered in

their career development. Office politics included jealousy of others when opportunities to lead

were offered to the respondents. Jealousy was reported as coming from men and women. The

office politics were in force, keeping some respondents from "being aware of leadership

opportunities" or preventing "access to resources for professional development opportunities."

Politics were also identified as being present in "search processes" for leadership openings.

Instead of search committees being allowed to perform their duty, in some instances senior

leadership would misuse their authority and make "strong recommendations" for certain

candidates.

Thirteen percent of the respondents identified "self doubt" as a barrier encountered in

their career development. These women created barriers for themselves through a "lack of

confidence," "not recognizing (their) own talents," "failure to set goals," and "(their own)

negative perceptions." Some of the women questioned their ability to lead, make decisions, and

handle criticism. Through this self doubt, they held themselves back from pursuing

opportunities or asserting their ideas.

The remaining 10% responded equally in identifying racial discrimination or age

discrimination as barriers encountered in their career development. One respondent expressed,

"Race does matter! From the perspective of an African-American, there is always the presence

of race in each interaction … we are excessively criticized of our performance; yet, the standards

(personal) far exceed that of our peers (white)." Other African-American respondents felt that

they had to "work harder, longer and better to compete for and retain leadership positions."

Similar expressions were presented in regards to age. One respondent expressed, "With a predominately white, older male executive team, my youth was a hindrance." Some of the other younger respondents reported feeling that they were cast into positions without proper training, making success very difficult.

In general, the majority of the women executive leaders responding to the survey reported feeling that they were working in a man's environment. They felt their experience was definitely different than their male counterparts and contained more obstacles.

Secondary Analysis

The seven dimensions of support were analyzed in conjunction with ethnicity. In order to determine level of significance for each factor by ethinicity, One-way ANOVAs were conducted. The results indicated that Factor I: Peer Support was more significant ($\alpha = .05$) for African-American respondents than for Caucasian or Asian respondents.

SUMMARY

The SPSS® software was used to produce descriptive data and to perform a factor analysis on the responses to the career development items. The factor loadings of the career development items were reported. The Varimax rotation was performed and the rotated factors were labeled by the researcher, according to the common theme of the loaded items. Seven factors were extracted and found to be significant. Mean analyses were conducted and presented on the career development items by total and by ethnicity. A summary of the demographic information was reported for the respondents. This included ethnicity, age, level of education, and job title.

Next, an in-dept discussion of the research findings is presented, including consideration of implications for practice and research and suggestions for further investigation.

CHAPTER V

DISCUSSION OF FINDINGS

The purpose of this study was to identify and describe the dimensions of support

necessary for women to be successful in attaining executive leadership positions in community

and technical colleges. This chapter presents a discussion of the research findings, consideration

of implications for practice and research in women's career development and leadership, and

suggestions for areas of further investigation.

Study Summary

This study collected data from a sample of women executive leaders in community and

technical colleges throughout the Southeastern United States. The study focused on identifying

and describing dimensions of support and key components in the career development of women

serving as presidents and vice presidents of community and technical colleges. To this end, four

research questions were studied:

1. What factors contributed to the perceptions of women in leadership positions regarding the support necessary in their career development?

2. What experiences were perceived as key factors in the career development of minority women in community and technical college leadership?

3. What key components were perceived as influential in the career development of women in community and technical college leadership?

4. What barriers did women in community and technical college leadership encounter in their career development?

A survey instrument was developed by the researcher to specifically address the research questions. The survey instrument gathered data from women executive leaders regarding their career development and experiences in executive leadership. The survey items were created as a result of a review of the literature related to women in leadership and two preliminary interviews with women serving as executive leaders in technical colleges. The survey instrument was refined through: (a) continuous reviews by the researcher and dissertation supervisor, (b) reviews by a panel of experts in the fields of survey research, leadership, and adult education, (c) rewriting of items for clarity, and (d) completion of the survey by colleagues of the researcher.

The sample used for this study was a purposive sample taken from the 2003 edition of the Higher Education Directory. The 229 participants were listed in the directory as presidents or vice presidents of community and technical colleges.

The four-step survey process presented by Salant and Dillman (1994) was consulted in the distribution of the survey instrument. The process employed involved two mailings. For the first mailing, a cover letter, a copy of the survey instrument and a stamped return envelope were mailed to the identified participants. For the second mailing, a follow-up letter, a replacement survey and another stamped return envelope was sent to all non-respondents.

One hundred forty-seven completed surveys were returned and the data were entered into an SPSS® database for statistical analysis purposes. The statistical analyses included factor analysis, mean ranking, and analysis of the comments to the open response items. Factor analysis was utilized to identify a seven-factor solution that captured 65% of the variance observed in the 25 career development items. The seven-factor solution for dimensions of support necessary in attaining executive leadership positions is presented in Table 16.

Table 16

Seven-factor Solution for Dimensions of Support

Factor	Name
I	Peer Support
II	Professional Support
III	Departmental Support
IV	Mentoring Support
V	Home and Community Support
VI	Gender Support
VII	Networking Support

Following the factor analysis, the mean ranking analysis was performed. The career development items were sorted by mean value from highest to lowest, in order to determine the perception of each item as a key factor to career development as self-reported by executive leaders responding in this study. The mean of the 25 career development items ranged from 2.32 to 4.99 on a 1 (strongly disagree) to 6 (strongly agree) point-scale.

The comments to the open response items were analyzed for common themes. The analysis revealed that the learning process of women in community and technical college leadership was defined by guidance from senior leadership, encouragement and guidance from family members, examples set by mentors, and personal desire. The identified barriers encountered by women in community and technical college leadership were related to household responsibilities, gender discrimination or bias, office politics, self doubt, racial discrimination, and age discrimination.

Discussion of Findings

This study addressed the four stated research questions. Discussion concerning the findings for each research question follow.

Question 1: What factors contributed to the perceptions of women in leadership positions regarding the support necessary in their career development?

The exploratory factor analysis was conducted to answer the question: "What factors contributed to the perceptions of women in leadership positions regarding the support necessary in their career development?" The factors identified were: Peer Support, Professional Support, Departmental Support, Mentoring Support, Home and Community Support, Gender Support, and Networking Support in order of factor loading values, least to greatest.

Peer Support and Professional Support were found to be key factors in the dimensions of support necessary in the career development of women in community and technical college leadership. These dimensions, while reported as significant by the respondents in this study, had not been explicitly noted in research at the time of this study. The research on women in leadership has centered on comparisons of the differences in the leadership styles of women and men and subordinates' perceptions of women leaders (Northouse, 2001). The career development research has centered on the intrinsic motivation and educational preparation obtained by women in order to advance in their careers (Hackett, 1995). Research into the areas of support necessary in career development has not been explored beyond that provided by family or government policies. The emergence of Peer Support and Professional Support as important dimensions of support necessary in attaining executive leadership positions is a key finding that will lead to the continued growth of the literature on women in leadership and women's career development.

Peer Support included recognition and encouragement from peers in regards to assignments and leadership pursuits. Leadership talents are sometimes fostered on the more informal level of interaction among peers. Peers are more likely to provide open feedback and

constructive criticism to each other than to someone viewed as a supervisor. This 'us against them' attitude provides the confidence and motivation for some women to seek and attain executive leadership positions.

Professional Support was related to conference attendance and membership in professional organizations. These activities provided opportunities for women to meet and learn from other women with similar career pursuits. Most women serving in executive leadership positions are in the minority on their campuses. Attending conferences – local, state, or national – allows them to feel empowered and encouraged by the fact that they are not alone. Conference attendance provides opportunities for women executive leaders to forge mentoring relationships with other women that are often not available on their individual campuses. Conference attendance is also a means for deeper involvement in professional organizations. As more women are involved in professional organizations, the ideas, contributions, and overall worth of women executive leaders will not continue to go unrecognized and stifled. The identified dimensions of Peer Support and Professional Support represent additions to the research related to women in leadership and women's career development.

Research related to women's career advancement noted "help from above" as a key factor (Morrison et al, 1987). Department heads contributed to the career development of aspiring executive leaders by providing opportunities and guidance. Project assignments allow rising leaders to demonstrate their skills and abilities. Also, research supports that good relationships with upper-level executives provides a needed edge for women aspiring to leadership positions (Morrison et al, 1987; Pence, 1995). These relationships also serve to provide information regarding position openings and opportunities for advancement. This study

found that "Departmental Support" continues to be a key factor in the dimensions of support necessary in the career development of women in community and technical college leadership.

Allen-Brown (1998) reported role models and mentors as necessary for women to achieve in academic careers. Enomoto (2000) and Tedow and Rhoads (1999) noted that African-American women especially found it difficult to negotiate executive leadership positions without a mentor who belonged to the system. This study found that mentoring support continues to be a key factor in the dimensions of support necessary for women in community and technical college leadership.

The number of women receiving advanced degrees has consistently increased over the past three decades (NCES, 2002). Young girls and adolescent women are encouraged to excel academically, as academic achievement has been a constant component of the foundation of women's career development (Silver, 1976; Zirkle & Cotton, 2001). The respondents to this study noted receiving encouragement to excel academically from family and community members as a key factor in their career development.

Role models were reported as a crucial component in women's career development (Allen-Brown, 1998). Social cognitive career theory also supports the importance of role models, noting that observation enables people to learn processes and rules without having to form them by tedious trial and error (Bandura, 1986). Enomoto (2000) reported that minority women who serve as mentors for other minority women in patriarchal institutions are regarded for their wisdom. The proactive and supportive actions of women mentors serve to encourage and inspire their protégés (Enomoto, 2000). Similarly, findings in this study showed specific support from other women as a continual factor in women's career development, as the

respondents in this study identified Gender Support among the dimensions of support necessary in attaining executive leadership positions.

The final factor contributing to the dimensions of support necessary in attaining executive leadership positions for this study was Networking Support. Tallerico (2000) reported the lack of access to informal networks as an organizational barrier in women's career development. Although women have managed to break into some informal networks in small numbers, conference attendance and membership in professional organizations comprise the majority of networking opportunities for women. Networking Support on all levels was identified as a necessary dimension of support in women's career development.

Question 2: What experiences were perceived as key factors in the career development of minority women in community and technical college leadership?

The rank ordering of the career development item means by ethnicity was used to answer the question: "What experiences were perceived as key factors in the career development of minority women in community and technical college leadership?" The means of the career development items were rank-ordered and compared by ethnicity to determine which items were ranked with significant difference by African-American respondents.

The mean response by Caucasians was within one standard deviation of the total mean for each career development item. The mean response by African Americans was higher than one standard deviation of the total mean on thirteen career development items. Family expectations, community support, mentors, overcoming stereotyping and preconceptions, and peer support were reported as more significant in the career development of African-American women. The secondary analysis also confirmed that Factor I: Peer Support was more significant ($\alpha =. 05$) for African-American women than for Caucasian women.

The family unit in the African-American culture is a source of pride, support, and inspiration. The family unit often extends to include the community and church. Any success or accomplishment by an individual is celebrated by everyone. Likewise, failure by an individual is taken as a let down of the whole unit. Stith (1996) reported that African Americans seeking advancement felt added pressure of representing their family, community, and in some cases, the entire race.

The necessity of mentors in the career development of women has been a recurring theme in the research on women in leadership (Enomoto, 2000; Allen-Brown, 1998; Vaughan, 1989). The findings of this study were consistent with previous research findings. Mentors were especially influential in African-American women gaining tools and connections needed to advance in educational leadership.

Society and the workplace assign certain roles and responsibilities to women. In the home, women are laden with caring for the family and performing household duties. Men, on the other hand, are applauded whenever effort is made to assist in the home. The workplace is not much different. Traditionally, women were expected to be secretaries or assistants, but not in charge (Vaughan, 1989). Enomoto (2000) reported this mentality as still prevalent in some instances. African-American women reported instances of being 'mistaken' for the subordinate in the office or organization, simply because of their race or gender (Enomoto, 2000). The African-American respondents to this study noted that overcoming stereotyping and preconceptions in the home and in the workplace was a part of their career development process. Question 3: What key components were perceived as influential in the career development of women in community and technical college leadership?

The rank ordering of the career development item means was used to answer: "What key components were perceived as influential in the career development of women in community and technical college leadership?" The career development item means were rank ordered for the purpose of investigating what respondents determined to be the career development items most important in their career development. The rank ordering of the career development item means and the analysis of the comments related to the second open response item, "Who/What was most influential in your career development?", revealed guidance by senior leadership, family members, mentors, personal desire, leadership seminars, and peers as defining the learning process for women in community and technical college leadership.

Morrison et al (1987) listed help from supervisors and desire to succeed among the key factors in career development for women. Supervisors and department heads provided valuable advice and insight for subordinates seeking leadership positions. The advice ranged from pitfalls to avoid to practical management practices (Pence, 1995). Department heads and other mentors, along with peers and leadership seminars, were resources that the respondents in this study identified as contributing to their learning process.

The participants in the study by Morrison et al (1987) cited desire to succeed as a factor in their career development. The respondents in this study also identified personal desire as a key component defining their learning process. Personal desire to be the best and to make a difference served as motivation to ask questions and to seek greater responsibility.

Family members also served to help define the learning process for women in community and technical college leadership. Thirty-three percent of the respondents to this study indicated that family members were influential in their learning process. The influence from family included elder family members who served as role models and mentors. In other cases, family

responsibilities as caretaker and provider served as motivation to learn and to seek career advancement.

Question 4: What barriers did women in community and technical college leadership encounter in their career development?

The comments to the third open response question were used to address the question: "What barriers did women in community and technical college leadership encounter in their career development?" The barriers identified were family/household responsibilities, gender discrimination/bias, office politics, self doubt, racial discrimination, and age discrimination.

Vaughan (1989) reported family responsibilities related to child rearing and maintaining the home as interruptions in women's career development. Barriers related to gender and racial discrimination/bias were deemed so severe in 1995 that the Federal Glass Ceiling Commission was assembled and charged with investigating the phenomenon and suggesting practices for change. Grogan (1999) cited sex-role stereotypes as limiting or blocking the leadership access of women and minorities. Other studies reported gender bias and racial discrimination as barriers faced by women in leadership (Enomoto, 2000; Tedrow & Rhoads, 1999). Age discrimination had not been explicitly cited in the research at the time of this study.

The respondents in this study identified family responsibilities as limiting time and mobility necessary to continuously advance in their careers. Family responsibilities included caring for elderly parents and caring for children – in some cases, disabled children. The workload related to caring for children, including attending school functions and meetings, limited the time and energy that the women in this study were able to devote to their career development. The mobility of the women was also limited, as they sought to provide stability

for their children by not relocating, in pursuit of career advancement. "Waiting until the children were grown" meant passing up advancement opportunities.

Gender discrimination/bias was reported as prevalent in search processes and in the workplace. Boards of Trustees were reportedly biased "toward a woman assuming a non-traditional role of line authority over traditionally male dominated areas." These areas included the presidency, vice-president of facilities, and technology management. Some respondents also reported feeling that "women were held to a higher standard (morals) than men." Specifically, divorce, for women, was viewed differently than for men. Respondents also indicated feeling that gender was an issue in salary determinations.

Office politics were reported as barriers in career development. Office politics included jealousy, redefinition of roles, position openings not being publicized, and being "pigeon-holed" in a position or area. The women in this study reported enduring grudges and acts of jealousy from men and other women. Instead of being supportive, some subordinates were purposely difficult to work with. Other politics involved qualified women being reassigned to non-leadership positions or assignments without notice or explanation. These women felt they were not provided resources or opportunities to thrive.

The self doubt reported by the respondents included not recognizing their own talents, lack of confidence, and their own feelings of inadequacy. Self doubt kept some women from focusing on their career development until later in their career. They failed to initially set career goals and had negative perceptions of women being in leadership. The lack of female role models served to produce a negative attitude and a lack of confidence that women could successfully serve as executive leaders. The confidence and positive perceptions eventually grew over time.

Racial discrimination was cited as preventing promotions. Some African-American respondents reported "always being number two, not number one" in an organization. They indicated feeling that they were always excessively criticized of their performance, being held to a higher level of proficiency than their Caucasian peers. "Working harder, longer and better" was required for these African-American women to compete for and retain leadership positions.

Age discrimination/bias was also reported by some respondents in this study. In a "predominantly white, older male executive team, youth was a hindrance." Respondents reported being on the outside of leadership circles, having to learn on their own, rather than benefiting from the knowledge and experience of members of senior leadership. In some cases, women's career development was delayed, as they were "waiting for others to retire."   Although they were performing leadership duties, they were not given the corresponding "job title and salary until a later date." Age discrimination had not been cited in the research as a specific barrier to women's career development in community and technical college leadership at the time of this study. Age discrimination represents an addition to the literature on women in leadership and women's career development.

Implications for Practice

This study provides practical contributions to the fields of women's leadership and career development. There are practical implications for institutions, peers, aspiring leaders, and families of aspiring leaders.

The survey instrument developed for this study provides community and technical college leaders with a tool that can be used to self-assess women in their organization who are potential additions to their leadership teams. The results of the self-assessment can be used to identify staff development needs of aspiring leaders as well as to inform senior leadership of any

internal barriers that may be perceived by those aspiring to leadership. Institutions will benefit from increased effectiveness as they harness the full talent, ability, and vision of aspiring women leaders. The study results identified seven support dimensions that can be used as a broad framework for evaluating the career development of women in community and technical college leadership. The study also identified six categories of barriers that exist specifically for women in community and technical college leadership. Executive leaders can utilize this information in implementing change in providing access to informal networks to aspiring women leaders and in making changes in the organization and operation of search committees seeking to fill executive leadership positions.

Peers in community and technical colleges can now be informed of the definite effect they have on each other to grow both professionally and personally. The challenge, encouragement, and constructive criticism provided by peers were shown in this study to be key factors in the career development of women. Identifying the key components perceived as influential in career development is beneficial to those serving as mentors and to their protégés as well. By examining the dimensions of support necessary for women to be successful in attaining executive leadership positions in community and technical colleges, current and aspiring leaders will have an understanding of personal and professional needs. From the results of this study, 25 career development items were ranked according to how they were perceived to impact career development of women in community and technical college leadership. These items can be consulted by aspiring leaders to access the personal and professional components of their career development, and by current executive leaders to access the possible roles they can play as mentors and in providing supportive environments. Planners and developers of staff

development activities can use these items to coordinate leadership training that addresses the needs of women seeking executive leadership positions.

This study confirmed that family and community support are important factors in the career development of women. Family and friends of women aspiring to leadership can now be informed of the support, encouragement, and understanding needed from them. Family members and friends are key players who can assist in breaking down the barriers that have resulted from traditional stereotypes and perceptions of women's roles in the home and in the workplace.

Implications for Research

In addition to practical implications, this research provides conceptual contributions to the fields of women's leadership and career development. Currently, there are few studies that offer empirical data on the support dimensions necessary in women's career development, especially as related to community and technical college leadership. This study offers the fields of women's leadership and career development a survey instrument - that was developed from an extensive literature review and input from experts in women's leadership, adult education and survey instrument development – that can be used for further research related to women's career development in community and technical college executive leadership. The results of this study offer empirical data to scholars on the dimensions of support necessary for women to successfully attain leadership positions in community and technical colleges. Finally, the results of this study contribute to the conceptual framework on women's leadership and career development and can be used to further the research on women's leadership and career development in community and technical college executive leadership.

Suggestions for Further Investigation

Further studies are needed to extend the research and to investigate the career development of women in community and technical college leadership on a broader perspective. First, the results of this survey cannot be generalized to all women in community and technical college leadership. Research is needed to replicate this study with a broader population of women community and technical college executive leaders. This would further the results of this study and offer a deeper understanding of the dimensions of support necessary for women to be successful in attaining executive leadership positions in community and technical colleges.

Second, there is a need for further qualitative research involving women in technical college executive leadership. Currently, there are few qualitative studies that the researcher is aware of that address women's career development in technical college leadership. Through the use of case studies, a more in-depth assessment of the necessary dimensions of support for women's career development could be achieved. This study identified Peer Support and Professional Support as dimensions not previously addressed in the research. Interviews with women executive leaders would serve to further address and develop these dimensions of support as they relate to women's career development in community and technical college leadership.

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APPENDICES

APPENDIX A

EDUCATION, TRAINING, AND EMPLOYMENT LEGISLATION

EDUCATION, TRAINING, AND EMPLOYMENT LEGISLATION

Title IX of the Education Amendments of 1972; Executive order 11246 in 1978
   -Prohibited discrimination by schools and contractors receiving federal funds;
"No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any educational program or activity receiving federal financial assistance" (Mid-Atlantic Equity Consortium, 1993);

Carl D. Perkins Vocational Education Act
   -Addressed equity; provided funds for gender equity, single parents and displaced homemakers;
"The Carl D. Perkins vocational and Applied Technology Act of 1990 makes state councils on Vocational Education responsible to:
   A. Evaluate at least once every two years the vocational education program delivery system assisted under this Act and under the Job Training Partnership Act in terms of their adequacy and effectiveness in achieving the purposes of the acts.
   B. Make recommendations to the State Board for Vocational Education on the adequacy and effectiveness of the coordination that takes place between vocational education and the Job Training Partnership Act, and
   C. Advise the Governor, the State Board for Vocational Education, the Idaho Job Training Council, the Secretary of Education, and the Secretary of Labor of these findings and recommendations." (Idaho State Council on Vocation Education, 1994, p. 5)

The Nontraditional Employment for Women Act of 1991
   -Required employment goals for women in NTOs;
"The Nontraditional Employment for Women Act contains provisions to amend the Job Training Partnership Act to encourage a broader range of training and job placement for women. The two major components of the bill are:
   A. Planning and reporting requirements
   B. A 4-year demonstration program to foster the development of programs to train and place women in nontraditional jobs." (Congress of the U.S., 1991)

1991 Women in Apprenticeship Occupations and Nontraditional Occupations Act (WANTO)
   -Provided technical assistance to employers and unions for integrating women into NTOs;
1994 School-to-Work Opportunities Act
   -Aimed at increasing opportunities for people to prepare for careers not traditional for their race, gender or disability (Kerka, 1999);
"The School-to-Work Opportunities Act of 1994 was signed into law by President Clinton in May of 1994. It provided seed money to states and local communities to build school-to-work systems to prepare young people for high-skill, high-wage jobs, or for further education. Each school-to-work system has three essential elements – school-based learning, work-base learning, and connecting activities." (Granello & Sears, 1999, p. 108)

The Civil Rights Act of 1991

  -Established the Federal Glass Ceiling Commission to identify glass ceiling barriers that have blocked the advancement of minorities and women;

  -Aimed to identify successful practices and policies that have led to the advancement of minority men and all women in decision-making positions in the private sector (FGCC, 1995).

APPENDIX B

SURVEY INSTRUMENT

Career Development of Women in Executive Leadership

Questionnaire

Women in executive leadership have a story to tell and I am interested in hearing yours. Your responses may serve to help other women who are striving to attain executive leadership positions. This questionnaire asks you to identify and rate factors, which contributed to your success in executive leadership. Your answers are strictly anonymous.

Please read each statement. Circle one number to indicate the level to which you agree to the item's importance in your career development. If an item does not apply to your career development, please check the NA column next to that item, instead of circling a number.

Please indicate the level to which you agree that each of the following items was a key factor in your career development.	Strongly ⇔ Strongly Disagree Agree	NA v
1. *Family members' high academic expectations* were an important factor in my career development.	1 2 3 4 5 6	
2. *Community support (friends, neighbors, church members, teachers, coaches)* was an important factor in my career development.	1 2 3 4 5 6	
3. *A male mentor* was an important factor in my career development.	1 2 3 4 5 6	
4. *A female mentor* was an important factor in my career development.	1 2 3 4 5 6	
5. *A mentor of the same race* was an important factor in my career development.	1 2 3 4 5 6	
6. *A mentor of a different race* was an important factor in my career development.	1 2 3 4 5 6	
7. *A significant, long term mentoring relationship with the same person (~5 years or more)* was an important factor in my career development.	1 2 3 4 5 6	
8. *Inclusion in informal networks* was an important factor in my career development.	1 2 3 4 5 6	
9. *A network composed of mostly women* was an important factor in my career development.	1 2 3 4 5 6	
10. *A network composed of mostly men* was an important factor in my career development.	1 2 3 4 5 6	
11. *A network composed of men and women equally* was an important factor in my career development.	1 2 3 4 5 6	
12. *Senior leadership taking an interest in my advancement* was an important factor in my career development.	1 2 3 4 5 6	
13. *Overcoming stereotyping and preconceptions of women in my workplace* was an important factor in my career development.	1 2 3 4 5 6	

Please indicate the level to which you agree that each of the following items was a key factor in your career development.	Strongly ⇔ Strongly						NA
	Disagree				Agree		v
14. *Overcoming stereotyping and preconceptions of women in my home life* was an important factor in my career development.	1	2	3	4	5	6	
15. *Receipt of recognition from my department head* was an important factor in my career development.	1	2	3	4	5	6	
16. *Receipt of recognition from peers of my race* was an important factor in my career development.	1	2	3	4	5	6	
17. *Receipt of recognition from peers of different races* was an important factor in my career development.	1	2	3	4	5	6	
18. *Receipt of support from my department head* was an important factor in my career development.	1	2	3	4	5	6	
19. *Receipt of support from peers of my race* was an important factor in my career development.	1	2	3	4	5	6	
20. *Receipt of support from peers of different races* was an important factor in my career development.	1	2	3	4	5	6	
21. *Participation in staff development opportunities* was an important factor in my career development.	1	2	3	4	5	6	
22. *Attending professional conferences* was an important factor in my career development.	1	2	3	4	5	6	
23. *Membership in professional organizations early in my career* was an important factor in my career development.	1	2	3	4	5	6	
24. *Membership in professional organizations later in my career* was an important factor in my career development.	1	2	3	4	5	6	
25. *The ability/willingness to relocate* was an important factor in my career development.	1	2	3	4	5	6	

Open Response:

1. What triggered your decision to pursue a career in executive leadership?

2. Who/What was most influential in your career development?

3. Have there been any barriers to your career development that the survey questions did not address? _____ If so, please explain

Background Information (optional):

1. In what year were you born?_____

2. What is your race/ethnicity? _____

3. What is your highest level of education?_____

4. What is your current job title? _____

5. Do you aspire to the next level of leadership?_____If so, identify the position title(s) you would pursue at the next level._____

6. Are you aware of the path you should take to achieve the next level of leadership?_____ If so, how did you become aware? _____

7. Please list the positions that comprise your leadership history, including the number of years in each role.

Thank you for completing this questionnaire.
An envelope has been provided for your convenience in submitting your responses.

Completion and return of this questionnaire implies that you have read this information and consent to participation in the research.

APPENDIX C

COVER LETTER TO PARTICIPANTS

Victoria Seals

115 Courtney Place
Winterville, GA 30683
(706) 613-6312

May 10, 2004

Name of Participant
Address of Participant

Dear Community or Technical College Leader:

I am Victoria Seals, a doctoral student in the Educational Leadership Program at the University of Georgia. I am working under the guidance of Dr. Catherine Sielke, of the Department of Educational Administration and Policy, River's Crossing, Athens, Georgia 30602. Should you have any questions regarding this research endeavor, I can be reached at (706) 713-1644. Dr. Sielke can be reached at (706) 542-9767. The enclosed *Career Development of Women in Executive Leadership Questionnaire* is related to doctoral research entitled Career Development Factors of Women in Technical and Community College Leadership. The results of this research may be published at a later date.

The purpose of my research is to identify and describe the dimensions of support necessary for women and minorities to be successful in attaining executive leadership positions in technical and community college educational systems. To this end, you have been identified as a potential participant, to complete a brief questionnaire related to career development.

Your participation in this research is completely voluntary. You may choose to participate by completing the questionnaire and returning it in the envelope provided or you may simply discard it. Completion and return of the questionnaire implies that you have read this information and consent to participation in the research. All responses to the survey will be kept confidential. A summary of the study will be gladly shared with participants upon completion.

Thank you for supporting my research by completing the survey and returning it to me by May 26, 2004. If you have any questions, please do not hesitate to ask now or at a later date.

Sincerely,

Victoria Seals
Doctoral Researcher
sealsv@ugamail.uga.edu
(706) 713-1644

Enclosures

> Additional questions or problems regarding your rights as a research participant should be addressed to Chris A. Joseph, Ph.D. Human Subjects Office, University of Georgia, 606A Boyd Graduate Studies Research Center, Athens, Georgia 30602-7411; Telephone (706) 542-3199; E-Mail Address IRB@uga.edu

APPENDIX D

FOLLOW-UP LETTER TO NON-RESPONDENTS

Victoria Seals

115 Courtney Place
Winterville, GA 30683
(706) 613-6312

June 8, 2004

Name of Participant
Address of Participant

Dear Community or Technical College Leader:

A few weeks ago, you should have received an introductory letter and a career development questionnaire. Because of your role in a leadership position in a community or technical college, your response is vital to my study.

If you have already completed and returned the questionnaire, thank you for choosing to participate in my study. If you have not, I am providing another copy and ask that you please take a few minutes to complete and return it. Your time and assistance are appreciated.
If you have any questions, please feel free to call me at (706) 613-6312.

Sincerely,

Victoria Seals
Doctoral Researcher
sealsv@ugamail.uga.edu

Enclosures

APPENDIX E

STUDY SURVEY INSTRUMENT CODING GUIDE

Variable Name	Description/Code
Resp. #	Consecutive; assigned as surveys were returned
Item 1 – Item 25	Career Development Items, Likert, 1-6 (1=strongly disagree to 6 = strongly agree)
O1	What triggered your decision to pursue a career in executive leadership?
O2	Who/What was most influential in your career development?
O3	Have there been any barriers to your career development that the survey questions did not address? _____ If so, please explain.
Year	Year of birth
Age	Equals 2004 – Year of birth
Race	What is your race/ethnicity? 1 = Caucasian 2 = African American 3 = Asian
Educ	What is your highest level of education? 1 = Associate Degree 2 = Bachelor's Degree 3 = Master's Degree 4 = ABD 5 = Doctoral Degree 6 = Specialist Degree
Job	What is your current job title? 1 = President 2 = Vice President
Aspire	Do you aspire to the next level of leadership? 1 = Yes 2 = No 3 = No answer
Path	Are you aware of the path you should take to achieve the next level of leadership? 1 = Yes 2 = No
PP	Please list the positions that comprise your leadership history.