ABSTRACT

Title of Dissertation:

WHO WANTS TO BE A COLLEGE PRESIDENT?

FORMS OF CAPITAL AND THE CAREER ASPIRATIONS OF SENIOR COLLEGE

ADMINISTRATORS

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This study used the theories of human, social and cultural capital as a lens to study the career aspirations of senior administrators, specifically vice presidents and deans already in the pipeline to the college presidency, particularly as they related to race and gender.

More than 2,700 vice presidents and deans at American Association for State Colleges and Universities (AASCU) member institutions were asked to provide demographic information, ant to respond to survey items assessing their accumulation of capital, their experiences with discrimination and their aspirations. More than 1,600 surveys were returned resulting in a 61% response rate.

The typical senior administrator at state colleges and universities was a 54 year old, White, male from a middle to upper class family. Approximately 30% of the senior administrators were women. People of color made up approximately 13% of the senior administrators. African Americans represented the largest number of people of color at

8% of the respondents, followed by Latinos/as (3% of the sample) and other minorities (2% of the sample).

The study found that most senior administrators did not aspire to be college presidents. Forms of capital were found to have a strong relationship with aspirations. Greater accumulation of human, social and cultural capital led to higher levels of presidential aspirations.

Race and gender also were related to presidential aspirations. African Americans were significantly more likely than Whites to aspire to the presidency, and women were significantly less likely than men to want a presidential post, even after controlling for capital and discrimination.

The majority of women and people of color in the study experienced discrimination in their career. For women, their experiences with discrimination appeared to have a negative impact when predicting some of the measures of aspirations. For people of color, their reported experiences had little impact on their presidential aspirations.

The findings of this study highlighted the importance of issues of networks and mentoring. It also furthered the understanding of the impact of forms of capital, the pipeline to the presidency and discrimination on the aspirations of senior administrators.

WHO WANTS TO BE A COLLEGE PRESIDENT? FORMS OF CAPITAL AND THE CAREER ASPIRATIONS OF SENIOR COLLEGE ADMINISTRATORS

by

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2003

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2003

DEDICATION

To Victoria

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I have heard several newly-minted Ph.D.s suggest that the dissertation process is one of the most solitary endeavors they have encountered in their professional life. I would characterize my process somewhat differently. While my dissertation work was an independent project, I could not have completed it without the support and guidance I received from many people.

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INTRODUCTION

Every year approximately 13% of all college presidents leave their position (Kerr & Gade, 1989). This suggests that, during any given year, more than 300 presidents are involved in a separation from their institution. As a result, every year hundreds of institutions are faced with the daunting task of searching for a new president.

The large turnover of presidents each year requires enough qualified candidates to fill the vacancies. Historically, vice presidents and deans have been considered the most likely sources from which to draw presidential candidates. However, in one of the few comprehensive studies of senior administrators' presidential aspirations, the Association of Governing Boards of Colleges and Universities (Commission on Strengthening Presidential Leadership, 1984) concluded that many vice presidents believed the presidency is no longer an attractive position. They stated that many believed the presidential role had evolved and become politically intense. The emphasis had changed from a focus on internal tasks, such as working with faculty and students, to external tasks, such as fund-raising and public relations (Commission on Strengthening Presidential Leadership, 1984).

With only one comprehensive study on the aspirations of senior-level administrators, vital information about administrators' desires to become a president is lacking. While it appears to some that candidate pools continue to be large, the Commission data suggest that colleges looking for a new president might have a hard time finding qualified candidates who want to assume that position.

The paucity of information about administrators' desires to become presidents has left several questions unanswered. To what extent do vice presidents and deans want to become presidents? What factors influence senior administrators' aspirations to become presidents?

The Formation of Aspirations

Much of the research on career aspirations conceptualized aspirations as the expectation of selecting a particular career (Farmer, 1985). However, recent work focused on the extent to which people aspire to leadership positions in their chosen career (Dukstein & O'Brien, 1995; Nauta, Epperson, & Kahn, 1998; O'Brien & Fassinger, 1993). This latter form of aspirations has been called higher-level career aspiration and is the focus of the current study.

Before exploring these higher-level career aspirations of senior administrators, one must understand how aspirations are formed. Much of the psychological literature attributed the formation of career aspirations to the satisfaction of needs, primarily needs of survival, pleasure and contribution (Astin, 1984; Roe, 1956). Survival needs refer to physical needs, such as food, shelter and clothing. Pleasure needs are those derived from the emotional pleasure and satisfaction of work activities. Contribution needs refer to the need to feel that one is contributing to the good of others.

The formation of aspirations goes beyond the satisfaction of needs. Relying on Bandura's (1986) social cognitive processes, many psychologists have suggested that aspirations are influenced by social and structural factors as well as psychological and cognitive factors. Cognitive psychologists have pointed to self-efficacy as a primary

determining factor in the formation of aspirations (Bandura, 1977, 1982). Self-efficacy, or a person's beliefs about his or her ability to succeed, has been linked to career aspirations, job persistence and career achievement.

While each of these cognitive theories plays a role in the formation of aspirations, a large body of research has indicated that social structures must also be considered (Astin, 1984; Bandura, 1986; Gottfredson, 1981; Hackett & Betz, 1981; Kanter, 1993; Kanter, Darrow, & Maccoby, 1979). Astin (1984) suggested that aspirations are formed through socialization processes where "the values of a particular society are gradually inculcated through word and example by parents, teachers and other adults" (p. 121). This process continues as individuals become socialized through experiences in school and work. Research has suggested that the structure of opportunity, which includes social factors such as family structure, occupational structures, economic conditions and discrimination, impacts the creation of aspirations (Astin, 1984).

The present study specifically explored these and other social factors that influence the aspirations of senior administrators. Drawing from research outside of education, a framework for examining these social factors was applied.

Aspiring to Become a College President and Forms of Capital

The current study drew on research in sociology and economics regarding theories of three different forms of capital: human capital, social capital and cultural capital. Specifically, this study explored the relationship between these forms of capital

and the career aspirations of senior administrators. Particular attention was given to the accumulation of these forms of capital and their relationship to race and gender.

Forms of capital are a set of constructs that explain the way in which resources are exchanged and distributed in a society (Bourdieu, 1986). Central to these constructs is the notion that individuals accumulate capital that can be exchanged for career advancement, status and power. The present study draws specifically on research that ties these forms of capital to career aspirations.

Financial capital is the fundamental construct in which all of the other forms of capital are grounded. Individuals accumulate financial capital, in the form of wages, investments and net worth, and are able to exchange this capital for resources or goods. Less tangible forms of capital (human, social and cultural) are used as frames for the current study; like financial capital, human, social and cultural capital can be accumulated and exchanged for power and status.

Human Capital

Economists have used human capital theory to explain the non-physical attributes of an individual that affect career aspirations and mobility. The most common attributes discussed by human capital theorists are an individual's knowledge, skills, education and training (Becker, 1993). Human capital theorists suggest that individuals accumulate human capital through investments in education, training and work experiences, which then can be exchanged for career advancement (Rosenbaum, 1986). Individuals are the primary actors in career achievement, and their opportunities depend on the amount they invest in education, training and work experiences (Rosenbaum,

1986). Thus, human capital theorists argue that career success is based almost solely on merit and that factors such as race, gender and social class play no part in career opportunities.

The application of human capital theory to the careers of presidents has been well documented. An advanced degree appears to be a requirement for most institutions. As most would expect, the most common degree among all presidents at all institution types is the Ph.D. In fact, almost all presidents hold a Ph.D., an Ed.D. or an advanced professional degree (Ross & Green, 2000).

Career experiences that appear to allow for the greatest accumulation of human capital have been well documented as well. The normative path to the presidency has been described as one that begins with an appointment to the faculty, followed by a position as department chair, followed by a deanship, then a vice presidency and then the presidency (Birnbaum & Umbach, 2001; Cohen & March, 1974; Moore, Salimbene, Marlier, & Bragg, 1983). Individuals that follow this path appear to accumulate the human capital that allows for the most mobility.

Social and Cultural Capital

Sociologists have suggested that in addition to human capital, symbolic forms of capital, in particular social and cultural capital (Bourdieu, 1977b), may influence careers and aspirations. They argue that social structures are reproduced because those from lower social classes are unable to accumulate the social and cultural capital required by the dominant class. As a result, those in power stay in power, and those from lower socio-economic backgrounds remain marginalized. Researchers use both

social and cultural capital to explain the influence that social class has on educational and occupational aspirations and career mobility.

Social capital is often described as the accumulation of social networks, social norms and expected behaviors that are established as a result of parents' social class (Coleman, 1988). Children who come from families with a low social status often do not have the important connections that are necessary for academic and occupational success. More recently, this type of capital has been expanded beyond the impact of parents' social class to refer to the accumulation of "networks" or "connections" in the workplace (Zweigenhaft, 1993). As individuals accumulate social capital by building networks, they are able to exchange the capital for status and achievement.

Cultural capital, or cultural reproduction as it is often called, is a type of capital that is transmitted from generation to generation (Bourdieu, 1977b). The factors that compose this type of capital define an individual's social class. The concept of cultural capital covers symbolic resources such as verbal ability, general cultural awareness and aesthetic preferences. Members of the dominant class often possess the most valued types of cultural capital, which places them in a position of power within an organization and society (Bourdieu & Passeron, 1977).

It is important to note that cultural capital can extend beyond the impact of parent's social class. Because the dominant culture of an organization dictates the cultural capital required for status within the organization, one must understand what is valued within a particular organization. For example, the value of a degree from a

prestigious institution like Harvard provides greater accumulation of cultural capital within society than a degree from a state teacher's college.

An individual's accumulated cultural capital is translated into what Bourdieu calls the habitus, which includes an individual's enduring preferences, expectations and aspirations (Swartz, 1997). Bourdieu (1977a, p. 331) argues that aspirations are "an internalization of objective probabilities for success." In other words, the notion of habitus suggests that individuals unconsciously or consciously estimate the likelihood of success. Individuals from families of lower socioeconomic status often have lower aspirations and may self-select out of particular situations (Bourdieu & Passeron, 1977). Therefore, they may view high-status positions, such as the presidency, to be unattainable and unrealistic.

The habitus is a dynamic concept that is impacted by other past experiences such as socialization processes, actions and observations (McClelland, 1990).

Therefore, social capital also plays a role in forming the habitus. Information gained through connections and networks shape an individual's expectations and aspirations.

As they calculate their opportunity for success, individuals weigh the information gained through networks and the socialization process before establishing aspirations.

In comparison to the extensive attention given to the effects of human capital, little work has been done on the effects of social and cultural capital on college administrators. Most studies of the impact of cultural capital have focused on educational attainment (McDonough, 1997; Perna, 2000) or success early in individual careers (Alwin, 1974). Other studies have focused on the impact of mentoring, a form

of networking or social capital, on career mobility (Moore, 1982, 1990; Moore & Salimbene, 1981; Sagaria, 1988).

Some recent studies indicate the importance of understanding the impact that social class, and the subsequent accumulation of cultural and social capital, has on the career successes of college faculty (Bieber, 1999; Dews & Law, 1995). Faculty from lower socio-economic classes face challenges as they try to become socialized in organizations dominated by the middle and upper classes. Research on faculty from working-class backgrounds has described feelings of isolation and the obstacles faced because of the lack of accumulated culture as dictated by the dominant class in higher education (Dews & Law, 1995). As one working-class academic suggests that

...it is hard to come from the working class and be an academic (with its implication of upward mobility). For some of us, it means not really belonging to either culture...I am not comfortable with middle class gentility...My upbringing did not equip me with polite manners. The decorum is what I mean by gentility...and the great majority of academics come equipped with middle class manners. (LaPaglia, 1995, p. 177)

While little work has been done applying the theories of social and cultural capital to careers of administrators in higher education, these constructs provide an interesting lens through which to study aspirations.

The Intersection of Race, Gender and Capital

The three forms of capital discussed above may provide some explanation as to why so few women and people of color are presidents. Although studies have indicated that the diversity of presidents has increased somewhat over the last ten years, the number of women and people of color that become president is still very small (Green,

1988a; Ross & Green, 1998, 2000; Ross, Green, & Henderson, 1993). Research points to several explanations for the relatively low numbers of women presidents and presidents of color. Many have identified problems associated with the pipeline to high-level administrative positions (Trower & Chait, 2002; Moore, 1990). Breakdowns in the pipeline have been identified at each stage in the career ladder: undergraduate education (Mazon & Ross, 1990; Ogbu, 1978), graduate education (Mazon & Ross, 1990; Vaughan, 1996), appointment to the faculty (Tack & Patitu, 1992), promotion in the faculty ranks (Aguirre, 2000; Milem & Astin, 1993) and promotion to increasingly responsible administrative posts (Vaughan, 1986; Vaughan, 1996).

Others have argued that people of color and women lack the appropriate credentials to succeed in higher education administration. Research suggests that personal circumstances such as marital status, family responsibilities and an inability to relocate all impact the careers of women in administration (Chliwniak, 1997; Glazer-Raymo, 1999; Mann & Smith, 1990; Sederberg & Mueller, 1992). A large portion of administrators of color in higher education follows the student affairs career path (Harvey, 1999; Vaughan, 1996), a somewhat uncommon path to the presidency (Green, 1988b). The mobility of a large percentage of people of color in higher education is further limited by an earned doctorate in education (Harvey, 1999), a degree seen by many as not being as presidential as a degree in the arts, humanities or sciences.

An important factor in the careers of women and people of color in higher education is their experiences with discrimination. Some have argued that women and people of color encounter a "glass ceiling" as a result of the discrimination they face as

they climb the administrative career ladder. Women often experience differential hiring practices (Kolpin & Singell, 1996) and lower recognition and rewards (Hearn, 1999; Johnsrud & Heck, 1994). Several women have chronicled the unique challenges, discrimination and harassment they experienced throughout their career and still encounter as deans, vice-presidents and presidents (Mitchell, 1993; Sturnick, 1991; Townsend, 1995). Recently, senior administrators of color have begun to describe the discrimination and chilly climate they faced as they rose through the administrative ranks (Benjamin, 1997; Bowen & Muller, 1996; Harvey, 1999; Lomotey, 1997).

While each of these explanations of why there are so few women and people of color in the presidency are significant, perhaps there are larger social factors that reach beyond discrimination that limit their careers. Differences in the accumulation of cultural and social capital may have an impact on the aspirations of minority and women administrators, resulting in significant differences in career attainment.

The three forms of capital are particularly useful in understanding the aspirations of women and people of color. Several studies suggest that the impact of social and cultural capital on career success and aspirations is significant, particularly for people of color and women. Some have found that people from different races and social classes accumulate human capital differently, which may lead to differences in their occupational and educational aspirations (Bourdieu & Passeron, 1977). Women and people of color from low socio-economic backgrounds not only face the challenge of being in a White, male dominated society, but they work in a culture dominated by the upper and middle classes. People of color and women from lower socio-economic

backgrounds are not only subject to discrimination because of their race or gender, but they face additional discrimination because of their working-class upbringing (Dews & Law, 1995). One black academic suggests that issues of race are compounded by issues of class (Warren, 1995). She further argues that middle-class black faculty have additional resources needed to climb the academic career ladder that lower class blacks do not. These faculty are given the tools and the language necessary to succeed in the White, middle-class academy.

Few studies have examined administrators of color and female administrators already in the pipeline to the presidency to understand their qualifications and aspirations. Are minority and women candidates in the pipeline less likely to want to become presidents? Many would assume that those who have reached the level of dean or vice president are qualified to become a president. If there are qualified administrators of color who desire to become a president, but are overlooked, one could conclude that the pipeline argument is weakened. Before any assertions are made as to the causes of the low representation of people of color in the presidency, the aspirations of those considered most qualified to become president must be explored.

Purpose of the Study and Research Questions

The current study used the theories of human, social and cultural capital as a lens to study the career aspirations of senior administrators, specifically vice presidents and deans, already in the pipeline to the presidency. These forms of capital also provided a frame through which to examine the intersection of race, class and gender with social structures and career aspirations. Given the lack of information on senior

administrators' aspirations and the impact of the intersection of race, gender and class on careers, the purpose of this study was to examine the relationship between the different forms of capital and the aspirations of college deans and vice presidents. The present study addressed the following research questions:

- 1) Who were the senior administrators at state colleges and universities?
 - a) How diverse were senior administrators at state colleges and universities?
 - b) What human, social and cultural capital had they accumulated?
- 2) What were the aspirations of senior administrators?
- 3) What was the relationship between the forms of capital (human, social and cultural) and the aspirations of senior administrators?
- 4) What saliency did race and gender have in the prediction of presidential aspirations?
- 5) How did experiences with discrimination relate to the aspirations of senior administrators?
- 6) To what degree did forms of capital and experiences with discrimination explain racial and gender differences in presidential aspirations?

Method of Study

To answer these questions, 2,757 vice presidents and deans from 339 state colleges and universities were surveyed. Because research indicates that less prestigious institutions tend to have more diverse administrations, a sample of administrators drawn from 371 state colleges and universities was selected in order to obtain a large and diverse sample. All the institutions studied were members of the American Association of State Colleges and Universities (AASCU).

AASCU, an organization located in Washington D.C, has played an important role in developing women and minority leaders within its member institutions. AASCU provides training for women administrators and administrators of color in hopes of diversifying senior administrators in state colleges and universities. Given this goal, AASCU found this study important for its membership and provided support for the survey implementation.

A survey instrument was designed to address several factors that may be related to senior administrators' desires to become a president. First, human capital was addressed through questions about education and career experiences. Second, background questions were asked to ascertain the accumulation of social and cultural capital. Third, career goals and aspirations were addressed through questions about future career plans. Finally, the attractiveness of the presidency was addressed in questions pertaining to the respondents' opinions about the different roles of the president.

The analyses of the survey data were conducted in several stages. First, an exploratory factor analysis was conducted to explore the constructs underlying the survey data. Given the complexity of the different forms of capital and the limited work done applying these theories to senior academic administrators, this stage of the data analyses was particularly important. The factor analysis allowed scales to be built that measured human, social and cultural capital, as well as presidential aspirations.

Next, descriptive statistics were used to describe the senior administrators of state colleges and universities. Because so little is known about college deans and vice

presidents, this analysis offered one of the first extensive descriptions of senior leadership of colleges and universities.

Finally, four models were constructed using ordinary least squares regression (OLS) and logistic regression to explore the relationship between the forms of capital and aspirations. The demographic variables, forms of capital and experiences with discrimination were entered into OLS models to predict presidential aspirations.

Significance of the Study

The present study filled several holes in the literature on administrators and administrative careers in higher education. First, it was the first study to provide a comprehensive understanding of senior administrators at state colleges and universities. Very little research has been conducted examining vice presidents and deans, particularly at state colleges and universities. The study was one of the first to provide a detailed description of leaders at these institutions.

Second, few studies have explored the aspirations of senior administrators, and in particular, their desire to become presidents. More importantly, this study sought to determine if there were differences in aspirations between men and women, and Whites and people of color. Until scholars have an understanding of the desire of senior administrators to become president, theories about the causes of inequities in number of women and minority presidents are difficult to defend. Researchers studying the reasons for the lack of diversity among senior higher education administrators may benefit from these findings.

Third, the study advanced the theories of human, social and cultural capital as they apply to careers in higher education. While several scholars have applied human capital theory to administrative careers, few have studied administrators using cultural and social capital as a theoretical lens.

Fourth, this study expanded the understanding of the forms of capital senior administrators believe they need to possess in order to be a president. Administrators who have not accumulated the cultural or social capital necessary to become a president may not be likely to see themselves as worthy of a presidential post. In other words, those who lack the necessary social networks and cultural knowledge may have suppressed aspirations because they have not accumulated the capital required to be a president.

The implications of such findings may inform policy. If policy makers hope to build programs that develop young administrators to become president, an understanding of aspirations and the factors affecting them would be extremely beneficial. Programs could be developed to address the factors influencing aspirations rather than addressing the symptoms of these factors. Mentoring programs, training and new recruiting techniques could be developed with the knowledge gained from this study.

The most significant contribution may be on college campuses that hope to encourage diversity in the presidency. Trustees, presidents, vice presidents and deans may find it useful to have an understanding of the issues that affect minorities and women as they advance in their careers. Until a deeper understanding of the factors that

affect the career mobility of people of color and women is provided, little change is likely to occur.

REVIEW OF THE LITERATURE

The present study is informed largely by sociological and economic theories of different forms of capital and their impact on careers. Simply put, many researchers believe that the accumulation of human, cultural and social capital is translated into economic capital and career opportunities. However, a more in-depth examination of these theories reveals a more complex relationship between capital, aspirations and career success.

Forms of Capital

Human Capital

Economists have long used human capital theory to explain career attainment. Human capital describes an individual's knowledge, skills and abilities that are accumulated through education, work experiences and training (Becker, 1993). An individual can accumulate human capital by investing in education and training (Rosenbaum, 1986). In turn, individuals can exchange human capital for increased earnings, power and occupational status (Becker, 1993; Pascarella, Smart, & Stoecker, 1989). Underlying the notion of human capital is that those who make investments in education and training expect a return on these investments in the form of higher job status or higher income.

Beyond education and training, an important component of human capital theory is the impact of capital accumulated through work experiences. Most careers have paths that one must take in order to advance. Spilerman (1977) explains this idea in a discussion of career trajectories. According to Spilerman, careers can be understood in

terms of normative trajectories, those sequentially ordered positions that begin with a single entry position and end with a fixed top position. Each position along the trajectory develops the skills needed for the individual for the subsequent position. So, in higher education terms, an individual who reaches the level of vice president at a college or university would be particularly qualified for the presidency.

It is important to note that human capital theorists argue that individuals are the primary actors in determining their own opportunity. Individuals determine how much they are willing to invest through education, training and work experiences, and as a result, will advance accordingly. Human capital theory suggests no structural barriers to advancement exist (Rosenbaum, 1986). According to human capital theorists, racism, sexism and classism are not considered to influence career success. Individuals with the same education and work experience will have the same opportunities for advancement. Little or no work has been done relating career aspirations to human capital. Studies of careers often control for human capital and examine other influences, such as cultural and social capital.

Social and Cultural Capital

Some sociologists have found theories of human capital inadequate in the explanation of career attainment. Unlike those that support human capital theory, many sociologists argue that not every form of capital can be easily translated into career achievement and focus primarily on class-based variations of capital (Swartz, 1997). They argue that human capital theory overlooks the social realities of organizations and society (Rosenbaum, 1986).

Researchers suggest that the dominant cultures dictate career opportunities for all individuals. A power structure exists within society (and organizations within that society), and those in the dominant culture create systems by which this structure is reproduced (Bourdieu, 1977b). In order to advance within society, individuals must accumulate the capital required by those cultures.

The form of capital they describe is quite different than human or financial capital. Bourdieu (1977c) argues that social class is an important influence on career aspirations, opportunities and successes. The impact of social structures often takes the form of symbolic capital, which Bourdieu calls cultural and social capital. The financial, educational and social status of parents and the knowledge, skills and values they impart, have a tremendous impact on the lives of their children (Becker, 1993). As a result, those from lower social classes face greater challenges as they attempt to accumulate human capital. The theories of social and cultural capital have been used to explain the differences in the career attainment of different racial groups. These two concepts must be explored in greater detail.

Social Capital

Social capital refers to the accumulation of resources as a result of relationships (Bourdieu, 1977a). More recently, this type of capital has been referred to as "networking" or "connections" (Zweigenhaft, 1993). These relationships most often are related to group membership. The accumulation of social capital can translate into a form of credentialing (Bourdieu, 1986). These credentials form a type of credit that can be used when attempting to advance in a career.

In the past, social capital was largely a function of family and familial relationships. In recent years, sociologists recognized that social capital is accumulated through individual efforts throughout their career. An individual can build a lasting network that can be mobilized when pursuing career advancement.

Nevertheless, social capital has a cultural component that is important to understand. Social networks create rules of conduct. These networks or connections involve mutual obligations and norms borne out of reciprocal relationships (Putnam, 2000). These norms can be specific in that an individual's action is predicated upon a reciprocal action. However, these reciprocities can be general and can become credits for future action.

The literature suggests that social capital has both individual and collective components. While individual accumulation of social capital is important, social capital can have an impact on communities as well. Networks (by definition) are built on relationships. A connection to someone who has accumulated little human capital is unlikely to be of great benefit. "(A) well-connected individual in a poorly connected society is not as productive as a well-connected individual in a well-connected society. And even a poorly connected individual may derive some of the spillover benefits from living in a well-connected community" (Putnam, 2000, p. 20).

The collective nature of networks suggests two dimensions of social capital: bonding and bridging (Gittell & Vidal, 1998). Bonding social capital refers to exclusive groups that tend to look inward and "reinforce exclusive identities and homogeneous groups" (Putnam, 2000, p. 22). Common examples of these are country clubs and

college fraternities. In these examples, social capital, like all forms of capital, can be harmful and even anti-social. Bonding social capital can be harmful because often those in power can use it to dominate. For example, for decades Whites from the upper class dominated country clubs and forbade people of color to join. The effect created a bond between members while preventing those who could not join from gaining the same benefits and resources. However, networks of people of color and specific ethnic groups can provide support for communities that may not have the symbolic power of dominant groups. For example, a black student union on campus can provide a community of support for African American students.

Bridging social capital are networks that include diverse social, racial and economic groups. They tend to be outward looking and work to bridge differences.

Bridging social capital creates a culture that is quite different than that formed by bonding social capital. Bridging social capital works to break down antagonism between groups. Civil rights organizations and service groups are examples of bridging social capital.

Researchers use three theoretical approaches – weak tie theory, structural hole theory and social resource theory - when describing the properties of networks as representations of social capital. Each of these theories suggests something about networks as they pertain to career success. Weak tie theory suggests that strong ties are likely to exist in a social clique, and the information possessed by any member of the clique is likely to be shared or to be redundant with information possessed by others in the clique (Granovetter, 1973). Weak (rather than strong) ties often serve as a way of

bridging close-knit groups, providing a broader and more diverse set of information and resources. The diversity of information gained through weak ties aids in individual career attainment.

Unlike weak tie theory, the structural holes approach to social capital focuses on the pattern of relations among members of an individual's network rather than on the characteristics of the individual's ties. According to structural holes theory, individuals who are connected to many people who are themselves unconnected will have a greater advantage in the workplace (Burt, 1992). In other words, when an individual is connected to someone with few connections, that individual is likely to receive information from the connection that they might get from another member of their network. Networks with many structural holes will have access to unique information, greater visibility, stronger bargaining power and greater career opportunities.

The third theoretical approach, social resources theory, focuses on the content of a network. Social resources theorists (Lin, Ensel, & Vaughn, 1981) suggest that it is not the weakness of the tie that gives an individual an advantage, but that weak ties tend to provide the type of resources necessary for the individual to advance. In other words, a connection within a network that possesses resources useful for career advancement can be considered a social resource. Research has shown that weaker ties reach higher status connections and that the occupational prestige of a connection is positively related to the prestige of the job secured by an individual (Lin et al., 1981).

While the three theories suggest a controversy about how social capital is conceptualized, some research suggests that integration is possible. This integrated

theory is particularly instructive for the current study. One researcher suggests that the integration of these concepts allows for the construction of social capital that is "both the different network structures that facilitate (or impede) access to social recourses and the nature of resources embedded in the network" (Seibert, Kraimer, & Liden, 2001, p. 223).

The integration of these theories suggests that accumulation of social capital provides several benefits to an individual. Greater access to information, greater access to financial resources, greater visibility, legitimacy and sponsorship are among the social resources one gets from networks (Seibert et al., 2001). Having access to connections that offer differing and unique perspectives is likely to give individuals status, which will positively influence their career. Additionally, access to greater information and resources provide an individual with power (French & Raven, 1968), increased reputation and legitimacy (Brass & Burkhardt, 1993). Finally, access to broad networks and career sponsorship, particularly with contacts at higher levels of the organization, can be seen as a form of credentialing (Burt, 1992). Each of these benefits can allow an individual to advance regardless of individual performance (Seibert et al., 2001).

The relationship between social capital and aspirations has recently received some attention from career scholars as they begin to move from extrinsic to intrinsic measures of careers (Seibert et al., 2001). Some suggest that the accumulation of social capital leads to greater motivation, feelings of empowerment and higher aspirations (Spreitzer, 1995). Still others have suggested that networks increase feelings of control

and competence (Gist & Mitchell, 1992) and can lead to greater job satisfaction (Hackman & Oldham, 1980). Some research indicates that feelings of powerlessness and low job satisfaction cause individuals to feel "stuck" and stifles their aspirations (Johnsrud & Rosser, 1999; Kanter, 1993). Individuals with little accumulated social capital have limited information from which to draw when making decisions about career aspirations, thus narrowing their perceived opportunities.

Cultural Capital

Cultural capital is another form of capital closely related to social capital. Some researchers suggest that cultural capital, or cultural reproduction as it is often called, is what is transmitted from generation to generation (Bourdieu, 1977). Again, cultural capital is a symbolic resource rather than an economic resource like financial capital. Many consider this type of capital to be the attributes that parents pass on to children. An individual's social class defines most of these attributes. Members of dominant classes possess the most valued kinds of cultural capital. Cultural capital includes such things as verbal facility, cultural awareness and aesthetic preferences.

Cultural capital exists in three forms: the embodied state, the objectified state and the institutionalized state (Swartz, 1997). The embodied state describes an individual's numerous dispositions that are cultivated and internalized through the socialization process. Much of this socialization begins in early childhood and requires an investment of time from parents, family members or hired professionals. Through this process, cultural distinctions are embodied within the individual. In attempts to help children become more cultured, parents may take their children to the theater or

museums. Because this acquisition of cultivated dispositions occurs within each family, socio-economic inequalities become dramatic cultural differences. Those accumulating more cultural capital will have greater successes in educational and career attainment than those with less cultural capital.

The objectified state, which is closely related to the embodied state, refers to material objects such as paintings, writings or books (Bourdieu, 1986). Those who embody cultural capital are able to serve to define what is cultural capital in its objectified state. Those who are able to understand and interpret writings, play instruments and appreciate museums determine what is of value. Therefore, those who have accumulated a great deal of cultural capital in the embodied form wield a great deal of power in determining what is objectified capital (Bieber, 1999).

The institutionalized state of cultural capital is often associated with education. In most cases, the institutionalized state refers to the credentials earned through education but has been extended to other credentials or competencies earned through training and job experiences (Bourdieu, 1986). The institutionalized state in the form of credentials is critical in gaining access to desirable jobs. So the investment in a good education is important in the job market.

Some have suggested that higher education has become a critical component in the reproduction of social class structure. Bourdieu and Passerson (1977) argued that schools reproduce class structures by translating class differences into differences in merit. In other words, students with higher levels of cultural capital, as a result of family

social class, are able to use the familial cultural capital to accumulate even more cultural capital through socialization processes in education.

Bordieu (1977b) claimed that this reproduction of class structures is a result of symbolic systems stemming from the way in which cultural capital is accumulated. He claims that these symbolic systems are "structuring structures" in that they provide a means for understanding the social world. They are also "structured structures" because they provide a shared meaning for all members of a culture and serve as instruments for communication. Most important, symbolic systems serve as instruments of domination. They allow for dominant groups to maintain hierarchical structures and legitimate social rankings.

Because dominant groups within society and organizations define the accumulated cultural capital necessary for career attainment, the concept of cultural capital can be extended beyond the impact that family has on an individual's career. For example, an individual can accumulate a great deal of cultural capital by attending a prestigious college or university, regardless of the parents' social class. That capital can be exchanged for greater earnings and career success (Zweigenhaft, 1993).

Thus, cultural capital not only provides a framework to examine career achievement but also suggests that cultural capital is closely related to individual aspirations. For the current study, a particularly important component of cultural (and social capital) is the concept of habitus. Habitus is a system of enduring dispositions that incorporates previous experiences (Bourdieu, 1977b). Habitus has been described as the "cultural unconscious, habit-forming force, set of basic deeply interiorized

master-patterns" (Swartz, 1997, p. 101). In practice, it functions as a matrix of social class differences in attitudes and aspirations based on experiences with family and environments. In other words, individuals with similar levels of cultural and social capital will have similar expectations and career aspirations.

According to Bourdieu and Passerson (1977), the habitus shapes individual actions, which in turn perpetuates existing opportunity structures. Aspirations correspond to individuals' environmental conditions and social class. What individuals judge as reasonable expectations or aspirations relates to their social standing (Bourdieu & Passeron, 1977). Therefore, those from a lower social class would have much different (and perhaps lower) aspirations than those from higher social classes.

The notion of habitus then has a relationship with cognitive decision-making processes. In effect, the habitus provides unconscious limits on what individuals see as rational career aspirations. The notion of habitus appears critical to understanding administrator aspirations. Perhaps, those from lower socio-economic backgrounds do not see the life of an academic as a possible career. However, if they do become a member of the faculty, they then may see the presidency as a plausible aspiration.

It is important to consider that habitus is a dynamic concept that also is impacted by past experiences, such as socialization processes, actions and observations (McClelland, 1990). As individuals become socialized in an organization and accumulate cultural and social capital, their habitus may undergo change. Because aspirations are a large component of the habitus, these aspirations are subject to change as capital is accumulated.

The Careers in Higher Education and Capital

Using the forms of capital as the theoretical framework for this study of senior college administrators requires an understanding of the capital required to reach the presidency. Because little or no work has been done to apply these theories to the population of the current study, it is important to examine the literature on presidents to understand the culture of higher education.

Capital and the College Presidency

What forms of capital are required to become a president? A large body of research has focused on the human capital required to be a president.

As most would expect, the education typically required of presidents is a doctorate, usually in traditional disciplines like the arts and sciences (Cohen & March, 1974; Ferrari, 1970). Degrees other than the doctorate are seen infrequently in the presidency, particularly at prestigious institutions (Ross & Green, 2000).

The accumulation of human capital in the form of work experiences also appears to be important in earning a presidential position. After earning their doctoral degree, most presidents appear to have followed similar trajectories (Birnbaum & Umbach, 2001; Cohen & March, 1974; Moore et al., 1983). They begin their careers with full-time faculty appointments followed by a series of administrative positions, such as department chair, dean and academic vice president (Carbone, 1981; Cohen & March, 1974; Ferrari, 1970; Kerr & Gade, 1989; Moore et al., 1983). These experiences are so common that some have termed this the normative path to the presidency. For the past 20 years, approximately two-thirds of all presidents reached the presidency having

accumulated the necessary human capital by taking this normative path (Birnbaum & Umbach, 2001; Cohen & March, 1974; Moore et al., 1983).

It seems that other career experiences also allow for the accumulation of the necessary human capital to become president. While many presidents have acquired similar human capital by taking the normative path, other paths to the presidency are taken with some frequency. Next to the normative path, the most common trajectory is the administrative path. The administrative path to the presidency involves a series of administrative positions with no full-time experience as a member of the faculty (Birnbaum & Umbach, 2001; Moore et al., 1983).

In addition to acquiring the necessary human capital to become president, it appears that presidents also must accumulate cultural capital. It seems that certain disciplines in which presidential hopefuls earn their degrees may accumulate different levels of cultural capital. The most common fields of study of presidents, or those fields that seem to afford the greatest accumulation of cultural capital, are arts, humanities and the sciences (Cohen & March, 1974; Ferrari, 1970). However, degrees in education, particularly the Ed.D., appear to restrict the options of those aspiring to be president (Birnbaum & Umbach, 2001). In addition, others have suggested that degrees in applied fields, such as nursing, also limit administrative opportunities (Gmelch, Wolverton, Wolverton, & Hermanson, 1996).

Cultural capital is also accumulated through work experiences. For instance, while these administrative presidents reach the presidency with great frequency, very few have reached the same position at more prestigious Research and Doctoral

institutions (Ross & Green, 1998, 2000; Ross et al., 1993). So, while nearly two-thirds of all presidents still obtain the necessary human capital required to become a president (Birnbaum & Umbach, 2001), they may not obtain the requisite cultural capital to become president.

As with cultural capital, little work has been done on applying the social capital framework to presidents. Yet, a closer look at presidents also suggests that social capital may play a role in their careers. Approximately 10% of all presidents come to their presidency without any experience in higher education or directly from a position outside of higher education (Birnbaum & Umbach, 2001). Many of these presidents are former politicians, military officers or religious leaders. Their entry into higher education suggests that they accumulated the necessary social capital through a broad network of connections that could be translated into a presidential post.

Additionally, the largely external role of the president requires presidential hopefuls to accumulate social capital. In an age where fundraising is largely a responsibility of the president, one would expect that presidential candidates have connections within higher education and with leaders in business and industry (Murphy, 1997). The ability to call upon established networks is important to the success of presidents.

While each of these arguments suggests the importance of using all three forms of capital when examining careers to the presidency, they do not link the capital framework to aspirations of college administrators. The research that uses these frames

to study the careers of faculty and administrators must be examined to strengthen this link.

Cultural Capital and Careers Higher Education

The bulk of the research on cultural capital and careers in higher education has been done on college faculty. One researcher (Bieber, 1999, p. 378) argued that faculty who come from upper class backgrounds "are in step with institutionalized educational agencies and systems" and benefit "in some way from participating in those agencies." As a result, they "exert more power and influence in perpetuating" those systems. He extends this understanding of the power held by certain academics to the undue influence that some disciplines have on the organization. Certain disciplines, namely the hard sciences, have the cultural capital needed to influence administrative decision making.

While this research suggests there is a relationship between power and cultural capital on college campuses, the impact of social class on academic careers is much more profound. Studies have found that class background and the subsequent accumulation of cultural and social capital not only impact whether one becomes a professor, but also influence the prestige of the institution where they work (Bieber, 1999). Although higher education is expanding to include less privileged individuals, the faculty continue to be dominated by those from privileged family origins (Dews & Law, 1995). Even more telling is that prestigious research institutions disproportionately draw from the higher social classes (Lipsett & Ladd, 1976). The higher the education and occupational prestige of parents, the more likely that their

offspring will teach at America's most prestigious institutions. Faculty from workingclass families are most heavily represented in lower-tier institutions.

Research also suggests that social class origins impact the discipline in which faculty teach. Faculty from less privileged upbringings were more represented in fields such as education and applied disciplines, which are perceived by many as having lower status in higher education (Lipsett & Ladd, 1976).

Not only does family status impact where and what faculty members teach, but it also impacts the work they do as a faculty member. Those from lower class backgrounds appear to prefer teaching to research. Faculty from working class backgrounds teach more, publish less and receive fewer grant dollars than those from wealthier upbringings (Lipsett & Ladd, 1976). In fact, those from middle and high social class origins overwhelmingly preferred teaching to research, which is in contradiction to the reward structures of most colleges and universities.

While these data are illuminating, recent research on faculty from working-class backgrounds provides a deeper understanding of the impact that social class origins have on academic careers. Faculty from lower social classes experience ambivalent feelings over their current social status and their working-class upbringing. While their working-class upbringing significantly influences how they view the world (Sennett & Cobb, 1972), they have moved to a middle-class profession, which offers a different view of the world. This incongruity between the social class upbringing and the social class of faculty creates conflict and discontent for working-class faculty (Ryan & Sackrey, 1996). Class movement of this kind creates feelings of being out of place in a

social class higher than one's origin. Researchers (Sennett & Cobb, 1972) have coined the phrase "status incongruity" to describe the feelings of discontent that result from upward mobility experienced by working-class faculty.

Many working-class faculty have described the feelings of "living on the edge" and not belonging to either the working-class or middle-class worlds. One faculty member of low social class origins describes faculty life as a

...borderline state. The sense of being neither here nor there persists: the working-class academic can never fully "move in." The people from your former life refuse to understand what you do; in your new one, what happens at the dinner table will always give you away: arranging silverware was not part of your training. You know and you don't know, and what you don't know is worth more to your professional position. (Capello, 1995, p. 130)

The status incongruity felt by working-class faculty has a profound impact on their careers, motivation and aspirations. Working-class faculty often feel marginalized in the academic environment (Gardner, 1993). In addition to feelings of marginalization, working-class faculty often feel insecure about their abilities and have fears of inadequacy in professional and social situations (Barker, 1995). Faculty from working-class backgrounds often are dissatisfied with their academic lives (Dews & Law, 1995). These feelings have led an overwhelming number of faculty from lower social status origins to state that they would leave their current faculty post in the next three years or leave higher education altogether (VanderPutten, 1999a).

Although many faculty from working-class origins have feelings of status incongruity that impacts their aspirations, their motivations are quite different from those from the middle class. Faculty from lower class origins often state that their

reasons for pursuing academic work and upward mobility in the faculty ranks is to make a difference in the lives of students (Dews & Law, 1995; VanderPutten, 1999b) and, in particular, a difference in the lives of students from social backgrounds similar to their own (VanderPutten, 1999b). Many of them stated they hoped to be a symbol for those in their community and expressed the desire to change the entire system of higher education (Warren, 1995).

Social Capital and Careers in Higher Education

Higher education officials have long understood the importance of social capital as an aid for career success in colleges and universities. The concepts of sponsorship and mentorship now have been identified as important aspects of encouraging the career advancement of college administrators (Johnsrud & Rosser, 1999; Moore, 1982; Moore & Salimbene, 1981; Sagaria, 1988).

This recent research explores the important information that administrators get from being mentored or sponsored. Some have suggested that an individual's networks within an organization and outside an organization are important to perceived opportunity (Kanter, 1993). Johnsrud and Rosser (1999) suggest that administrators who have a broad range of external relationships are likely to have higher aspirations. These networks provide information and support that allow for individuals "to effectively deal with the wider organization and mobilize resources" (Johnsrud & Rosser, 1999, p. 137). This information, in turn, creates a perception of greater opportunity and higher aspirations.

Beyond these few studies of human, social and cultural capital, little work has been done applying these frames to administrative careers. More importantly, in the context of the present study, no work has been done to apply these concepts to the aspirations of senior administrators. This is important for several reasons. First, what do senior administrators perceive to be the necessary accumulation of the forms of capital to become president? If the presidency is unattractive to senior administrators, perhaps it is because they feel they do not have the necessary capital required to do the job effectively. Second, perhaps applying the forms of capital to senior administrators will provide some explanation as to why so few women and people of color become presidents.

Race/Ethnicity and Gender and the College Presidency

Many in higher education have begun to recognize the need for diversity in their faculty and staff. Yet the most visible position on college campuses, the president, continues to be held mostly by White men. Over the last decade, the diversity of presidents has increased, but the position continues to be held mostly by White men in their fifties (Green, 1988a; Ross & Green, 1998, 2000; Ross et al., 1993). In 1998, only 19% of all presidents were women, and only 11% were people of color (Ross & Green, 2000).

Some research indicates that the percentage of women presidents drops somewhat when women's colleges and Historically Black Colleges and Universities are removed from the sample (Birnbaum & Umbach, 2001). Of the 2,297 presidents who responded to the American Council on Education's survey of presidents in 1995, only

103 were African American (Ross & Green, 1998). When historically black colleges and universities are removed from the sample, the number of African American presidents drops to 80 (Birnbaum & Umbach, 2001).

Likewise, gender and race/ethnicity appear to have a relationship with the type of institution presidents lead (Birnbaum & Umbach, 2001; Vaughan, 1996). In 1995, only 6.1% of all presidents at doctoral-granting institutions were people of color, and only 10.3% were women (Birnbaum & Umbach, 2001). How can such low representation of women and minorities in the presidency, particularly at doctoral-granting institutions, be explained?

Pipeline Problem

Most argue that the number of women and people of color in the career pipeline to the presidency is very small; thus, few actually become president. Proponents of this argument suggest that few minorities and women enter the career pipeline to the presidency (Vaughan, 1986, 1996). A number of articles have identified problems associated with the pipeline to high-level administrative positions. Breakdowns in the pipeline have been identified at each stage in the career ladder: undergraduate education (Mazon & Ross, 1990; Ogbu, 1978), graduate education (Mazon & Ross, 1990; Vaughan, 1996), appointment to the faculty (Tack & Patitu, 1992; Vaughan, 1996) and increasingly responsible administrative posts (Vaughan, 1996).

While this argument is important, other research suggests a link between race and gender and the prestige of an institution at which an individual becomes president.

One study found that even when controlling for education and career path, African

Americans are underrepresented within doctoral-granting institutions (Birnbaum & Umbach, 2001). Still others posit that minorities and women are more likely to become presidents at community colleges than at doctoral-granting institutions (Vaughan, 1986, 1996). These studies suggest that there are factors other than career path and education that inhibit the careers of women and minorities and restrict them from becoming presidents or becoming presidents at certain types of institutions.

Discrimination and the "Chilly Climate"

One possible explanation is that women and administrators of color experience discrimination as they attempt to move up the career ladder. In the past 10 years, several collections of autobiographical stories of women who have reached high-level administrative posts have appeared. The women chronicle the unique challenges, "chilly climate", discrimination and harassment they experienced throughout their career and still encounter as deans, vice-presidents or presidents (Mitchell, 1993; Sturnick, 1991; Townsend, 1995). Other research suggests that women often experience differential hiring practices (Kolpin & Singell, 1996) and lower recognition and rewards (Hearn, 1999; Johnsrud & Heck, 1994). Women also encounter personal circumstances, such as marital status, family responsibilities and an inability to relocate, which impact their careers in administration (Chliwniak, 1997; Glazer-Raymo, 1999; March & March, 1977; Sederberg & Mueller, 1992).

Minorities tell of the discrimination and chilly climate they faced as they rose through the administrative ranks and that they still face today (Benjamin, 1997; Bowen & Muller, 1996; Harvey, 1999; Lomotey, 1997). They also describe the frustration that

comes from the differential treatment they get when applying for senior positions in higher education. Researchers (Jackson, 2001; Oliver & Davis, 1994; Wiley, 2001) have found the discrimination of African American administrators has a negative impact on their retention at predominantly White institutions.

Others have suggested that the discrimination of people of color and women prevents them from even entering the pipeline to administrative positions (Trower & Chait, 2002). The discriminatory climate causes many women and people of color to choose not to attend graduate school or to withdraw while in a graduate program. If they overcome these barriers and obtain a tenure-track slot, many encounter isolation (Aguirre, 2000). These experiences often results in them not getting promoted or leaving higher education altogether (Aguirre & Martinez, 1993; Rausch, Ortiz, Douthitt, & Reed, 1989).

Each of these explanations is important in understanding the challenges faced by women and people of color as they attempt to advance in higher education. However, little research has been done to understand the factors that affect the desire of high-level academic administrators to become president. More importantly, do these factors influence people of color and women differently than White men? The literature suggests that this question may be answered by using capital framework.

Race, Gender and the Forms of Capital in Higher Education

The implications of the accumulation of human capital appear to be somewhat different for minorities, women and White men. Some have suggested that different racial and ethnic groups accumulate human capital differently, which may have a

significant effect on career aspirations. The rewards minorities receive for their investment in human capital have been found to be lower than Whites because of the lower levels of social and cultural capital accumulated by minorities (Bourdieu & Passeron, 1977).

Research suggests that that the reputation of the institution from which one receives a degree affects occupational attainment (Alwin, 1974). However, some have found that the reputation of colleges has a greater impact on the occupational attainment of women than of men (Garrison, 1982) and minorities than of Whites (Pascarella et al., 1989). Additionally, women and people of color have historically earned degrees in fields that appear to lead to fewer opportunities for presidential posts than traditional degrees in the arts and sciences (Birnbaum & Umbach, 2001). Women often earn degrees in nursing (Gmelch et al., 1996), and people of color often earn degrees in education. Both of these degree areas appear to accumulate less cultural capital than degrees in the hard sciences or engineering.

It also appears that women and administrators of color may follow paths that do not allow them to accumulate a great deal of cultural capital. Historically, people of color and women appear to take career paths that have not been considered as those that lead to the presidency. Another factor that appears to affect the career path of women is the large proportion who follow a student affairs career track. In 1991, only 16% of chief academic officers were women (Walton, 1998), while at approximately the same time, 28% of all chief student affairs officers were women (Creal & Beyer, 1993).

Similar to women, a large portion of administrators of color in higher education follows the student affairs career path (Harvey, 1999; Vaughan, 1996). Again, fewer vice presidents of student affairs reach the presidency than those that follow the academic route through the positions of dean or academic vice president (Ross & Green, 1998). Further limiting mobility to high-level administrative posts, a large percentage of minorities in higher education earned their doctorate in education (Harvey, 1999).

These few studies highlight the importance of exploring the impact that the accumulation of capital has on the career aspirations of women administrators and administrators of color.

Studies of Aspirations

With the theoretical lens in hand, it is important to explore the few studies on aspirations of administrators. A review of the literature found only two studies on aspirations of senior administrators, both of which examined race and gender as factors related to aspirations. One of these studies (Gonzalez, Wolverton, Wolverton, & Gmelch, 1999) explored the aspirations academic deans held for their next position. The data suggested some differences in aspirations between racial groups and gender. They found that 31% of minority deans predicted that their next professional move will be to a position of higher academic leadership compared to 28% of White men and 23% of women. However, they found that more minority deans (53%) predicted that their next position will be outside of higher education compared to White men (44%) and women (45%). While these data are compelling, they only provide a portion of the story. They

tell very little of the factors influencing these plans and only provide data on college deans.

The second study examined the aspirations of administrators and faculty of color in the Pennsylvania State System of Higher Education (Taliaferro & Montoya, 1995).

This study found that less than half of the women in the sample aspired to be a university vice president compared to almost 90% of the men in the sample.

Additionally, they found that only 15% of the female administrators said they would like to be a president compared to 35% of the male administrators.

These studies suggest differences between male and female administrators of color but, because of the limited sample, do not allow for comparisons across race. The studies also did not perform any multivariate analyses on the data to examine the complex relationships between race, class, gender and aspirations.

Summary

The review of the literature establishes several important premises on which the present study is based. Because almost no work has been done on the aspirations of senior administrators, the higher education literature provides little guidance as to the appropriate framework to use to guide the study. However, a review of the literature outside of higher education suggests that forms of capital influence aspirations. This literature provides insight into the aspirations of senior administrators.

Yet applying the forms of capital to aspirations required an in-depth examination of the theories. While most view capital as something that can be

exchanged for career achievement, the current study argues that the literature suggests a strong link between capital and aspirations.

Social capital is a critical component of the calculation of aspirations. As individuals are socialized to an organization and accumulate capital, they obtain information that shapes their aspirations. The make-up of an individual's network and the information received from those within the network becomes part of the calculation of what is a reasonable aspiration. Most within an organization are socialized to understand the cultural capital required for advancement.

The accumulation of social capital is particularly important for presidents.

Presidents are required to have a broad network of connections from which they can draw information, political power and financial resources. Senior administrators who are deciding whether they would like to be a college president must assess their personal networks to determine whether they have the social capital required to be an effective president.

Cultural capital is also a critical component of an individual's calculation of aspirations. Individuals assess their accumulation cultural capital as they develop their aspirations. Through this assessment, they determine whether they have the cultural capital required to be a president. More important, much of the process of forming aspirations is not done consciously. If individuals who do not have the cultural capital required in a particular culture are likely to feel like outsiders, they subconsciously may not even consider a presidential appointment as a possibility.

The literature also suggests that the forms of capital alone cannot explain career aspirations. Because race and gender impact the accumulation of capital, they cannot be overlooked in a study of aspirations. However, the forms of capital provide a lens through which to examine possible differences in aspirations.

METHODOLOGY

The purpose of this study was to provide an understanding of the career aspirations of college vice presidents and deans. The theories of human, social and cultural capital provided the foundation for this study of career aspirations as they related to the desires of vice presidents and deans to become presidents. This study hoped to uncover the different influences these constructs have on the aspirations of women and minority deans and vice presidents. Given these purposes, the present study addressed the following research questions:

- 1) Who were the senior administrators at state colleges and universities?
 - a) How diverse were senior administrators at state colleges and universities?
 - b) What human, social and cultural capital had they accumulated?
- 2) What were the aspirations of senior administrators?
- 3) What was the relationship between the forms of capital (human, social and cultural) and the aspirations of senior administrators?
- 4) What saliency did race and gender have in the prediction of presidential aspirations?
- 5) How did experiences with discrimination relate to the aspirations of senior administrators?
- 6) To what degree did forms of capital and experiences with discrimination explain racial and gender differences in presidential aspirations?

Method

Only vice presidents and deans were selected for the present study for two reasons. First, the majority of presidents report that immediately prior to becoming a

president they served as a dean or vice president. In 1998, of those presidents who had not been presidents before assuming their current post, 56% had been vice presidents, and 16% had been academic deans (Ross & Green, 2000). Given that almost three quarters of all first-time presidents came from one of these positions, the current study focused on vice presidents and deans.

Second, by selecting a sample that included only vice presidents and deans, the current study went to the top of the pipeline to the presidency to try to provide an explanation for the small number of minority and women presidents. Given the lack of knowledge of the aspirations of senior administrators, it is difficult to provide evidence that fully verifies the pipeline argument. Do the most qualified women and people of color want to be president? Do women and people of color want to become president, but have not been given the opportunity? Only by surveying vice presidents and deans can these questions be answered.

Because of the diversity of senior administrators at state colleges and universities, the American Association of State Colleges and Universities (AASCU) was approached for help in conducting the study. With the assistance and support of AASCU, this study surveyed vice presidents and deans in state colleges and universities in an attempt to provide an understanding of their aspirations for becoming president.

Design

Sample

The population of senior administrators used in this study comes from the 393

AASCU member institutions within the United States. A database, which included the

393 institutions, addresses of those institutions, names of senior administrators within those institutions, title codes of the administrators, and email addresses of the administrators, was created using the Higher Education Directory (Rodenhouse, 2001). Vice presidents included within the database were chief academic officers, chief business officers, chief administrative officers, chief research officers (not fundraising), chief development officers and chief student life officers. Deans included in the database were deans of arts and sciences, agriculture, business, education, engineering, fine arts, nursing, allied health sciences, humanities, mathematics and sciences, social and behavioral sciences, and graduate programs.

The population database was merged with institutional characteristics found on the Integrated Postsecondary Education Data System (IPEDS) created by the National Center for Education (NCES). An examination the Carnegie Classification (1994) of 393 AASCU population institutions revealed that most of the AASCU members were classified as Master's (Comprehensive) Colleges and Universities. Because of the lack of diversity among senior administrators at Research Universities (Birnbaum & Umbach, 2001; Ross & Green, 1998; Ross & Green, 2000; Ross et al., 1993; Vaughan, 1996; Wolverton, 2001) and the desire to create a sample of administrators employed at institutions with similar cultures, the administrators from the nine AASCU Research Universities in the population were dropped from the study. Administrators from seven Two-year Colleges and six Specialized Institutions were also removed from the sample because of the unusual organizational structures at these institutions. Additionally, 30 Historically Black College and Universities were removed. The final sample included

2,980 administrators from 341 institutions. After correcting for retirements and administrators who had taken new positions at other institutions, the final sample consisted of 2,757 participants from 339 institutions.

Instrument

The instrument (see Appendix A) used was based loosely on previously tested questionnaires of college administrators (Gmelch et al., 1996; Moore, 1983; Ross & Green, 2000) and faculty (Higher Education Research Institute, 1998). Given the limited nature of those surveys, additional questions were added regarding career aspirations and perceptions of accumulated cultural and social capital. The survey was pilot tested with a group of 14 deans and vice presidents to ensure the clarity of the questions and to determine the amount of time needed to complete them. Several changes were made to the survey based on the comments of those who participated in the pilot test.

Several questions were asked on the survey related to human capital, social capital, cultural capital, demographics and institutional characteristics. Other questions included were measures of general career aspirations, perceived attractiveness of the presidency and presidential aspirations. A figure outlining the concepts used to construct the survey was included in Figure 1.

Figure 1

Conceptual Map of Survey Items

Discipline of highest degree – 7 UG/Grad Institution selectivity – 14a, 14b Current institution selectivity – 14d Previous institution selectivity – 14c Disciplinary of faculty appointment – 7 Tenure earned – 6 Rank - 5 Cultural activities – 15c, 15k, 15q, 15z, 15cc Reputation of alma maters – 15l, 15y Reputation where currently work – 15v Awards – 17 Publications – 19 Partner's works in higher ed. – 23 Presidential Aspirations Offered – 14e Nominated – 14b Interviewed – 14d Offered – 14e Turned down offer – 14f Qualified – 15i, 15n, Like to be a president – 15d, 15u, Next position – 15r Told would be a good president – 16f Racial – 15f, 15d, 16a Intervalon – 15i, 15d, 16a Racial – 15f, 15d, 16a	Demographics	Cultural Capital	Congres Agnirations
10. Disciplinary of agenty 144 26, 27 10. O'Grad Institution selectivity - 144 Previous institution selectivity - 146 Disciplinary of faculty appointment - 7 Tenure earned - 6 Rank - 5 Cultural activities - 15c, 15k, 15q, 15z, 15c Reputation of alma maters - 15l, 15y Reputation of alma maters - 15l, 15y Reputation where currently work - 15v Awards - 17 Publications - 19 Partner's works in higher ed 23 Presidential Aspirations Seeking presidency - 11 Applied - 14a Nominated - 14d Offered - 14e Turned down offer - 14f Qualified - 15j, 15n, Like to be a president - 15d, 15n, Like to be a president - 15d, 15n, Like to be a president - 15f Discrimination In Pacial - 15f, 15o, 16a Facial - 15f, 15o, 16a Gender - 15i, 15d, 16a	Δαρ - 75	Discipline of highest degree 7	Next mosition time 11
Ourwin institution selectivity – 14a, 14b Ourwin institution selectivity – 14d Previous institution selectivity – 14d Previous institution selectivity – 14c Disciplinary of faculty appointment – 7 Tenure earned – 6 Rank - 5 Cultural activities – 15c, 15k,15a,15z,15c Reputation of alma maters – 15l, 15y Reputation where currently work – 15v Awards – 17 Publications – 19 Partner's works in higher ed. – 23 Presidential Aspirations Seeking presidency – 11 Applied – 14e Nominated – 14b Interviewed – 14d Offered – 14e Turned down offer – 14f Qualified – 15j,15n, Like to be a president – 15d,15u Next position – 15r Told would be a good president – 16f Discrimination Racial – 15f,15o,16a,16b Gender – 15j,15d,16b,16b Gender – 15j,15d,16b,16b		Discipline of ingliest degree — /	
Current institution selectivity – 14d Previous institution selectivity – 14c Disciplinary of faculty appointment – 7 Tenure earned – 6 Rank - 5 Cultural activities – 15c, 15k,15q,15z,15cc Reputation of alma maters – 151, 15y Reputation of alma maters – 151, 15y Reputation of alma maters – 151, 15y Reputation where currently work – 15v Awards – 17 Publications – 19 Partner's works in higher ed. – 23 Presidential Aspirations Seeking presidency – 11 Applied – 14a Nominated – 14b Interviewed – 14d Offered – 14e Turned down offer – 14f Offered – 14e Turned down offer – 14f Offered – 15i, 15n, Like to be a president – 15d, 15u Next position – 15r Told would be a good president – 16f Discrimination Racial – 15f, 15o, 16a Gender – 15i, 15dd, 16b Recial – 15i, 15dd, 16b	Race/ethnicity – 20	UG/Grad Institution selectivity – 14a, 14b	Next position institution type – 12
Previous institution selectivity – 14c Disciplinary of faculty appointment – 7 Tenure earned – 6 Rank - 5 Cultural activities – 15c, 15k,15q,15z,15cc Reputation of alma maters – 15l, 15y Reputation where currently work – 15v Awards – 17 Publications – 19 Presidential Aspirations Seeking presidency – 11 By 15m,15ff Applied – 14a Nominated – 14d Offered – 14e Turned down offer – 14f Qualified – 15j,15n, Like to be a president – 15d,15u Next position – 15r Told would be a good president – 16f Discrimination Racial – 15f,15o,16a Gender – 15j,15dd,16b	Gender – 21	Current institution selectivity – 14d	Next position institution sector - 13
Disciplinary of faculty appointment – 7 Tenure earned – 6 Rank – 5 Cultural activities – 15c, 15k,15q,15z,15cc Reputation of alma maters – 151, 15y Reputation where currently work – 15v Awards – 17 Publications – 19 Partner's works in higher ed. – 23 Presidential Aspirations Seeking presidency – 11 Applied – 14b Interviewed – 14d Offered – 14e Turned down offer – 14f Qualified – 15j,15n, Like to be a president – 15d,15u Next position – 15r Told would be a good president – 16f Discrimination n. 1 Racial – 15f,15o,16a Gender – 15j,15d,16b	Parents' SES – 26, 27	Previous institution selectivity – 14c	Currently seeking – 15a
Tenure earned – 6 Rank – 5 Cultural activities – 15c, 15k,15q,15z,15cc Reputation of alma maters – 15l, 15y Reputation where currently work – 15v Awards – 17 Publications – 19 Partner's works in higher ed. – 23 Presidential Aspirations Seeking presidency – 11 Applied – 14a Nominated – 14b Interviewed – 14d Offered – 14e Turned down offer – 14f Qualified – 15j,15n, Like to be a president – 15d,15u Next position – 15r Told would be a good president – 16f Discrimination Racial – 15f,15o,16a	Partner - 22	Disciplinary of faculty appointment – 7	
Rank - 5	Children - 24	Tenure earned – 6	
Cultural activities – 15c, 15k,15q,15z,15cc Reputation of alma maters – 151, 15y Reputation where currently work – 15v Awards – 17 Publications – 19 Partner's works in higher ed. – 23 Presidential Aspirations Seeking presidency – 11 Applied – 14a Nominated – 14b Interviewed – 14d Offered – 14e Turned down offer – 14f Oualified – 15j,15n, Like to be a president – 15d,15u Like to be a president – 15f Told would be a good president – 16f Discrimination n. 1 Racial – 15f,15o,16a Gender – 15j,15d,16b		Rank - 5	
Reputation of alma maters – 151, 15y Reputation where currently work – 15v Awards – 17 Publications – 19 Partner's works in higher ed. – 23 Presidential Aspirations Seeking presidency – 11 Applied – 14a Nominated – 14b Interviewed – 14d Offered – 14e Turned down offer – 14f Oualified – 15j, 15n, Like to be a president – 15d, 15u Next position – 15r Told would be a good president – 16f Discrimination Racial – 15f, 15o, 16a Gender – 15j, 15dd, 16b		Cultural activities – 15c, 15k,15q,15z,15cc	
Reputation where currently work – 15v Awards – 17 Publications – 19 Partner's works in higher ed. – 23 Presidential Aspirations Seeking presidency – 11 Applied – 14a Nominated – 14b Interviewed – 14d Offered – 14e Turned down offer – 14f Qualified – 15j,15n, Like to be a president – 15d,15u Next position – 15r Told would be a good president – 16f Discrimination Racial – 15f,156,16a Gender – 15j,15dd,16b		Reputation of alma maters – 151, 15y	
Awards - 17 Publications - 19 Partner's works in higher ed 23		Reputation where currently work – 15v	
Publications - 19 Partner's works in higher ed 23 Presidential Aspirations Seeking presidency - 11 Applied - 14a Nominated - 14b Interviewed - 14d Offered - 14e Turned down offer - 14f Qualified - 15j,15n, Like to be a president - 15d,15u Next position - 15r Told would be a good president - 16f Discrimination Racial - 15f,15d,16a Gender - 15j,15d,16b Gender - 15j,15d,16b Conder - 15j,15d,16		Awards - 17	
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Presidential Aspirations Presidential Aspirations Seeking presidency - 11 Applied - 14a Nominated - 14b Interviewed - 14d Offered - 14e Offered - 14e Turned down offer - 14f Qualified - 15j,15n, Like to be a president - 15d,15u Next position - 15r Told would be a good president - 16f Discrimination Racial - 15f,15d,16a Gender - 15j,15d,16b Gender - 15j,15d,16b Gender - 15j,15d,16b Gender - 15j,15d,16b Offered - 15j,15d,16b Gender - 15j,15d,16b Gender - 15j,15dd,16b Gender - 15j,15dd,16d Gender - 1		Partner's works in higher ed. – 23	
b,15m,15ff b,15m,15ff s,15h,16c,16d,16f Nominated – 14b Interviewed – 14d Offered – 14f Oualified – 15j,15n, Like to be a president – 15d,15u Next position – 15r Told would be a good president – 16f Discrimination Racial – 15f,15o,16a Gender – 15f,15d,16b	Social Capital	Presidential Aspirations	Attractiveness of presidency
bb,15m,15ff Nominated – 14a Nominated – 14b Interviewed – 14d Offered – 14e Offered – 14e Turned down offer – 14f Otalified – 15j,15n, Like to be a president – 15d,15u Next position – 15r Told would be a good president – 16f Discrimination Racial – 15f,15o,16a Gender – 15i,15dd,16b	Participation in professional activities – 18	Seeking presidency – 11	Too much fundraising – 15e
Nominated - 14b Interviewed - 14d Offered - 14d Offered - 14e Offered - 14e Turned down offer - 14f Qualified - 15j,15n, Like to be a president - 15d,15u Next position - 15r Told would be a good president - 16f Discrimination Discrimination Racial - 15f,15d,16a Gender - 15i,15dd,16b Gender	Mentoring - 15b,15m,15ff	Applied – 14a	Too much politics – 15ee
Interviewed – 14d Offered – 14e Offered – 14e Turned down offer – 14f Qualified – 15j,15n, Like to be a president – 15d,15u Next position – 15r Told would be a good president – 16f Discrimination Racial – 15f,150,16a Gender – 15i,15dd,16b	Networks - 15g,15h,15s,15x,15hh,16c,16d,16f	Nominated – 14b	Contribution to campus – 15aa
Offered – 14e Turned down offer – 14f Qualified – 15j,15n, Like to be a president – 15d,15u Next position – 15r Told would be a good president – 16f Discrimination Racial – 15f,15o,16a Gender – 15j,15dd,16b		Interviewed – 14d	Influence over education – 15w
Turned down offer – 14f Qualified – 15j,15n, Like to be a president – 15d,15u Next position – 15r Told would be a good president – 16f Discrimination Racial – 15f,15o,16a Gender – 15j,15dd,16b		Offered – 14e	Too busy $-15t$
Qualified - 15j,15n, Like to be a president - 15d,15u Like to be a president - 15d,15u Next position - 15r Told would be a good president - 16f Discrimination Racial - 15f,15o,16a Gender - 15i,15dd,16b Gender - 15i,15dd,		Turned down offer – 14f	•
Like to be a president – 15d,15u Next position – 15r Told would be a good president – 16f Discrimination Racial – 15f,15o,16a Gender – 15i,15dd,16b		Qualified - 15j,15n,	
n - 1 Position – 15r Told would be a good president – 16f Discrimination Racial – 15f,150,16a Gender – 15i,15dd,16b		Like to be a president – 15d,15u	
Told would be a good president – 16f Discrimination Racial – 15f,150,16a Gender – 15i,15dd,16b		Next position – 15r	
Discrimination n - 1 Racial — 15f,150,16a t position — 3 Gender — 15i,15dd,16b		Told would be a good president – 16f	
Racial – 15f,150,16a Gender – 15i,15dd,16b	Human Capital	Discrimination	Institutional characteristics
Gender – 15i,15dd,16b	Current position - 1	Racial - 15f,150,16a	Carnegie – 2a
	Years in current position – 3	Gender – 15i,15dd,16b	Region – 2c
	Years in higher education - 4		Size - 2b
Highest degree – 8	Highest degree – 8		

Procedure

With the assistance and support of AASCU, a mixed-methods technique of survey implementation was employed. Participants were contacted using electronic mail (email) and traditional mail. The electronic mail messages provided a link to the web site that contained the survey. Prior to entering the electronic survey form, participants were asked to agree or not agree to the informed consent (see Appendix B). If they did not agree to the informed consent, they were taken to a web page that asked for their email address and explained that they would not be included in any future correspondence concerning the study. If they agreed to the informed consent, they were taken directly to the survey form. Upon completion and submission of the survey, they were directed to a new page that asked for their email address. This page explained that the email address would be stored in a different database from their responses and would remove them from any lists for future correspondence.

A modified Dillman (1986, 2000) method of survey implementation was employed to obtain high response rates. Dillman's method encourages contacting participants multiple times when doing large-scale mail and electronic surveys.

First, the sample was contacted via email on a Wednesday. Dillman recommended that the email be sent in the middle of the week to prevent respondents from deleting the message as they clean out their mail collected over the weekend. The email directed them to a web site where they could fill out the survey. In the email (see Appendix C for all email and paper correspondence), the project and the importance of

the individual's participation was explained. A phone number and email address were included in the email in the event that the participants had questions or wanted to remove themselves from the study.

Prior to sending the second email, bad email addresses were checked on university web sites and corrected. If the administrator was no longer at the institution, that individual was removed from the sample. Those who indicated they did not want to participate in the study or had completed a survey were not included in subsequent contacts.

One week after the first email, a second email was sent to those who had not responded to the first request. In the second email, they were reminded of the survey and provided a link to the web site. The email explained the importance of completing the survey if they had not and thanked them if they had already done so. They were provided a phone number and email address in the event that they had questions or wanted to remove themselves from the study.

One week later, a third email was sent to nonrespondents. The email included all the components of the previous two email notifications. It also explained that shortly they would be receiving a survey in the mail if they preferred to complete a paper version.

Three weeks after the third email was sent, the paper version of the survey was mailed to all nonrespondents. Included with the survey were a self-addressed, stamped

envelope, an informed consent form and a cover letter providing a brief description of the research project and the importance of their participation.

Responses

These efforts yielded 1,689 responses or a response rate of 61.2%. Of the 1,689 respondents, 1,271 responded electronically (75.3%) and 418 completed the paper version of the survey (24.7%).

Because surveys were not linked to individuals, it was quite difficult to verify the representativeness of the sample. This studied attempted to determine representativeness in two ways. First, on the few measures where a comparison could be made, the respondents looked very much like the sample. Table 1 compares the sample and respondents on four measures.

A comparison of characteristics of the sample and respondents suggested few differences. The sample group and respondents were statistically equal in terms of institution type, region and current position. The only measure where the respondents were statistically different than the sample was enrollments. Examining the unstandardized residuals suggested that the only real significance was for those reporting enrollments of 20,000 or higher. The respondent were slightly over-representative of administrators for those institutions.

The differences observed on the enrollment variable may be due to measurement error. Although the number used for the enrollment comparisons were the most recent data reported by IPEDS, the numbers were more than three years old. Perhaps the size

of the institutions changed since the last reporting. Additionally, many of the respondents may not know the actual enrollment data of their institution and may have overestimated student headcounts.

Table 1

Frequencies and Chi-square tests comparing sample and respondents

	Sample	Respondents	x ²	Sig.
Institution Type			0.107	0.948
Baccalaureate	11.9	11.6		
Master's/ Comprehensive	63.3	63.8		
Doctoral/Research	24.8	24.6		
Total	100.0	100.0		
N	2,757	1,661		
Undergraduate and graduate enrolln	nent		23.903	0.002
Less than 2000	4.2	4.0		
2,000-3,999	15.4	13.4		
4,000-5,999	15.4	14.7		
6,000-7,999	14.3	13.0		
8,000-9,999	11.7	13.3		
10,000-11,999	8.9	7.8		
12,000-14,999	9.6	10.0		
15,000-19,999	11.0	10.4		
20,000 or more *	9.4	13.4		
Total	100.0	100.0		
N	2,757	1,658		
Region			1.865	0.967
New England	4.9	5.4		
Mid-Atlantic	14.6	14.4		
Great Lakes	15.2	15.4		
Rocky Mountains	4.5	3.8		
Plains	9.9	10.2		
Southeast	30.6	30.0		
Southwest	11.2	11.3		
Far West	9.2	9.5		
Total	100.0	100.0		
N	2,757	1,669		
Note.* Indicates a standardized residua	l greater than to	wo.		

Note.* Indicates a standardized residual greater than two.

Table 1 continues

Table 1 Continued

	Population	Respondents	x ²	Sig.
Current Position			21.938	0.065
Dean of Agriculture	0.9	0.7		
Dean of Arts and Sciences	8.4	9.2		
Dean of Business	8.7	6.2		
Dean of Education	8.4	8.4		
Dean of Engineering	3.4	2.5		
Dean of Fine arts	4.9	4.0		
Dean of Allied Health and Nursing	5.1	5.2		
Dean of Math and Science	3.9	4.1		
Dean of Social and Behavioral Science	1.8	1.9		
Chief Academic Officer	12.2	13.8		
Chief Business Officer	13.9	13.4	•	
Chief Development Officer	9.4	9.2		
Chief Student Affairs Officer	11.4	13.9)	
Chief Research/Dean of Graduate	7.6	7.6	<u>,</u>	
Total	100.0	100.0)	
N	2,757	1,679)	

Note.* Indicates a standardized residual greater than two.

The second way in which this study verified whether the respondents were representative of the population of senior administrators was to examine the literature on deans and vice presidents. In terms of race and gender, other studies suggested the data collected were representative of the population of senior administrators.

Wolverton (2001) found a similar representation of people of color in her study of deans. Approximately 12% of the deans in their study were people of color, and 12.5% of the respondents in the current study were people of color. Because they over sampled disciplines where they believed they were more likely to find women, gender comparisons were difficult to make. Their sampling strategy yielded a sample that was

41% female, almost half of whom were deans of nursing. When nursing deans were removed from the sample in the current study, women represented approximately 24% of the deans, a proportion close to that of the Wolverton study with nursing deans removed.

The gender and racial make-up of respondents was also quite similar to college presidents (Ross & Green, 2000). People of color held approximately 11% of the presidencies in 1998. The proportion of women presidents was somewhat smaller than the proportion of women respondents. Women held only 19% of the presidencies in 1998, while approximately 30% of the respondents were women.

Data Analysis

Missing Data

Prior to conducting an analysis of the data, missing data were examined. An analysis of all of the questions revealed no more than 5% missing on any given variable. However, some cases were ultimately removed from the analysis. Thirty-four respondents were removed from the sample because they were missing either a variable for current position, race/ethnicity, gender or age. An additional 25 cases were removed because they were missing one of the measures that made up a composite dependent variables or they were missing the majority of the variables that were included in any one of the composite independent variables. The resulting analytic sample included 1,620 cases. Any of the remaining missing data on attitudinal questions, parents'

education and parents' occupational prestige was imputed using means based on race and gender.

Overview of Techniques

A combination of exploratory factor analyses, descriptive statistics and statistical modeling was used to analyze the data. Prior to running multivariate models and descriptive analyses, a factor analysis was conducted to uncover any of the underlying constructs in the data. The results of the factor analysis were used to guide an extensive description of the senior administrators, and the factor composites were used in the subsequent multivariate analysis.

Factor Analysis

The goal of the factor analyses was to construct a series of scales that represent aspirations to be a college president, forms of capital and experiences with discrimination. Sixteen behavioral and 40 attitudinal items were analyzed using principle components analysis with varimax rotation. One factor of presidential aspirations, which was more appropriately described as expectations of becoming a college president, emerged from the data. One factor of social capital, two factors of cultural capital and one factor of discrimination also emerged as the most parsimonious measures of these constructs (see Table 2).

The first scale constructed was developed to serve as a dependent variable and represented administrators' expectations of becoming a college president. The seven-item scale was constructed using responses to items that asked administrators the degree

to which they believed they were qualified to be a president and their plans to be a college president. Factor loadings ranged from 0.694 to 0.811, and the scale had an alpha reliability of 0.86.

The second scale represented administrators' accumulation of social capital. Five of the items in this scale were related to mentoring, and two items were related to networks. The alpha reliability for this scale was 0.84, and the factor loadings ranged from 0.519 to 0.854.

Table 2

Factor analysis of expectations, capital and discrimination constructs

Construct	Loading
Expectations about becoming a college president	
Have the necessary connections to be a president	0.712
Qualified to be a president	0.811
Had the necessary experiences to be president	0.773
Told would be good president*	0.715
One day would like to be a president	0.762
Next position likely to be a presidency	0.749
Never want to be a college president (recoded)	0.694
Alpha=.8	6
Social capital-networks/mentoring	
Mentor played role in advancement	0.854
Mentor taken interest in career	0.824
Several mentors in career	0.766
Mentor provided info/advice*	0.740
Have someone consider a mentor	0.654
Networks helpful in success	0.614
Have a broad network	0.519
Alpha=.8	84

Note. *Response category ranges from 0 to 2 (0=never, 2 = frequently). All other attitudinal responses range from 1 to 4 (1=strongly disagree, 4= strongly agree). Table 2 continues

Table 2 continued

Construct	Loading
Cultural capital - preferences	
Enjoy theater	0.802
Enjoy symphony	0.780
Enjoy museums/art exhibits	0.752
Enjoy lectures	0.716
Enjoy reading books	0.629
Alpha =	.79
Cultural capital - Scholarly Activities	
Rank	0.945
Tenured	0.919
Years as full-time faculty	0.881
Articles published	0.792
Alpha =	.83
Climate of discrimination	
Career-discriminated gender	0.838
Advancement limited by gender	0.786
Advancement limited by race	0.782
Career-discriminated race/ethnicity	0.746
Gender discrimination*	0.703
Racial discrimination*	0.613
Alpha=	=.84

Note. *Response category ranges from 0 to 2 (0=never, 2 = frequently). All other attitudinal responses range from 1 to 4 (1=strongly disagree, 4= strongly agree).

A third scale emerged representing cultural preferences as a measure of accumulated cultural capital. Five items were included in this scale that assessed administrators level of enjoyment of museums, symphonies, plays, lectures and books. The factor loadings ranged from 0.629 to 0.802. The scale had an alpha reliability of 0.79.

A second cultural capital scale was developed with items assessing the extent to which administrators engaged in scholarly activities. Four measures included in this

scale were academic rank, tenure, years as a full-time faculty member and journal articles published. This four-item scale had an alpha reliability of 0.83 with factor loadings ranging from 0.792 to 0.945.

A fifth scale represented administrators' experiences with discrimination. The six-item scale included three measures of gender and three measures of racial discrimination. The alpha reliability for the factor was 0.83, and factor loadings ranged from 0.613 to 0.838.

Multivariate Analysis

Two modeling techniques, ordinary least squares regression (OLS) and logistic regression, were used to understand the relationship between forms of capital and presidential aspirations.

Dependent Variables

Because of the complexity of the idea of aspirations, two components of aspirations were modeled. The first component was the expectations senior administrators had about becoming a college president. Two measures of expectancy were modeled: general expectancy and immediate expectancy. OLS regression was used to predict general expectancy, the composite variable described earlier, which included measures of beliefs about qualifications and whether one day they would like to be a college president. Immediate expectancy was the respondents' beliefs that their next position was likely to be a college president. Logistic regression was employed to

model the probability that senior administrators would report their next position was likely to be a presidency.

The second component of aspirations modeled in this study was senior administrators' behaviors related to the pursuit of a presidency a presidency. This component provided a better understanding of senior administrators' immediate career plans. Two measures of application behavior, whether they applied and whether they were nominated for a presidency in the past two years, were modeled using logistic regression.

Independent Variables

To ascertain the impact of demographic variables, accumulated capital and experiences with discrimination in the prediction of the dependent variables, hierarchical blocked regression was used. The predictor variables were entered in three blocks: demographic variables (age, gender, race/ethnicity, marital, family SES and marital status); capital accumulation (human capital, social capital, and cultural capital) and experiences with discrimination. Because the relationship between race and gender and the dependent variables were of particular interest, entering the variables into the equation in blocks allowed for the examination of the effect capital accumulation and discrimination had in explaining aspirational differences between groups. See Table 3 for a description of the independent variables included in the model and Appendix D for a correlation matrix of the variables.

Table 3

Descriptive statistics of independent variables

	Minimum M	(aximum	Mean	Standard Deviation
African American	0.000	1.000	0.080	0.27
Latino/a	0.000	1.000	0.025	0.15
Other minority	0.000	1.000	0.020	0.13
Female	0.000	1.000	0.302	0.45
Age*	32.000	79.000	54.738	6.14
Age squared	1024.000	6241.000	3033.985	658.349
Partner	0.000	1.000	0.864	0.34
Female x Partner	0.000	1.000	0.216	0.41
SES of Family*	11.000	73.000	43.864	16.53
Ed.D.	0.000	1.000	0.143	0.35
Professional Degree	0.000	1.000	0.012	0.11
Other Degree	0.000	1.000	0.221	0.41
Career Path*	0.000	6.000	2.002	1.21
Dean-Hard pure	0.000	1.000	0.040	0.19
Dean-Hard applied	0.000	1.000	0.081	0.27
Dean-Soft applied	0.000	1.000	0.141	0.34
Dean-Soft pure	0.000	1.000	0.146	0.35
Dean-Other	0.000	1.000	0.014	0.11
Chief Business	0.000	1.000	0.130	0.33
Chief Development	0.000	1.000	0.090	0.28
Chief Research	0.000	1.000	0.017	0.12
Chief Student Affairs	0.000	1.000	0.136	0.34
Other Chief Officer	0.000	1.000	0.015	0.12
Networks	-2.916	2.082	0.000	1.00
Activities*	0.000	25.000	8.046	3.74
Awards*	0.000	12.000	1.802	1.50
Major-soft pure	0.000	1.000	0.277	0.44
Major-hard applied	0.000	1.000	0.067	0.23
Major-soft applied	0.000	1.000	0.515	0.50

Note. *Descriptive statistics calculated using unstandardized variables. Variables were standardized prior to being entered in the models.

Table 3 continues

^{**}Composite variable created using standardized weights from principal components analysis.

Table 3 Continued

	Minimum	Maximum	Mean	Standard Deviation
Major-other	0.000	1.000	0.040	0.196
High degree				
selectivity*	1.000	4.000	3.158	0.751
Preferences**	-4.661	1.375	0.000	1.000
Scholar**	-1.485	1.175	0.000	1.000
Climate**	-0.998	4.065	0.000	1.000
Climate x female	-0.998	4.065	0.163	0.586
Climate x Af. Am.	-0.998	4.065	0.083	0.419
Climate x Latino/a	-0.998	2.520	0.014	0.180
Climate x Other	-0.998	4.065	0.019	0.226

Note. *Descriptive statistics calculated using unstandardized variables. Variables were standardized prior to being entered in the models.

Demographics

Because career development research has indicated that age (Crandall & Battle, 1970; Farmer, 1985; Gottfredson, 1981), race (Chung & Loeb, 1996; Gottfredson, 1981; Gump & Rivers, 1975), gender (Astin, 1984; Farmer, 1985; Farmer & Chung, 1995; Kanter, 1993), socio-economic status (Farmer & Chung, 1995; Gottfredson, 1981; Hauser & Featherman, 1977), marital status (Chliwniak, 1997; McElrath, 1992; Milem & Astin, 1993) and children (Chliwniak, 1997; McElrath, 1992) impact aspirations or career success, respondents were asked to answer a series of demographic items. Their responses to several of the demographic questions were included in the models.

Dummy-coded (1=yes, 1=no) variables for *race/ethnicity* were included in the models. Because so few Asian Pacific American and multi-racial administrators

^{**}Composite variable created using standardized weights from principal components analysis.

participated in the study, they were placed into an "other minority" category. The resulting models included variables for African Americans, Latinos/as and other minorities, with Whites being the omitted category. *Gender* (1=female, 0=male) was also dummy-coded and included in the model with males being the omitted category.

Marital status or partner was entered into the model as a dummy-coded variable.

Respondents who were married or unmarried living with a partner were coded as one,
and those who were single were coded as zero. An interaction term of female by partner
was entered to determine the relative impact that having a partner has on the aspirations
of women.

Socio-economic status (SES) was estimated using measures of family background characteristics, including mother's educational attainment, mother's occupational prestige, father's educational attainment and father's occupational prestige. Occupational prestige was measured by coding parents' occupations into the seven-level occupational prestige scale from Hollingshead's (1965) Two-Factor Index of Social Position.

The seven levels of the scale are as follows:

- Higher executives of large organizations and major professionals (e.g., executive business officers, lawyers, doctors, mayors, professors)
- 2. Business managers, proprietors and lesser professionals (e.g., branch managers, executive assistants, office/store managers, accountants, librarians, pharmacists)

- 3. Administrative personnel, small business owners and minor professionals (e.g., credit managers, sales representatives, interior decorators, travel agents)
- Clerical and sales workers, technicians and owners of little businesses (e.g., clerks, bank tellers, dental technicians)
- 5. Skilled manual employees (e.g., barbers, electricians, bakers, mechanics, homemakers)
- 6. Machine operators and semi-skilled employees (e.g., hospital aides, bartenders, bus drivers, waitresses)
- 7. Unskilled employees (e.g., janitors, laborers, cafeteria workers)

Parental education was recorded on a six-point scale ranging from completed some high school or less to completed a professional or graduate degree. Father's education and occupation were used except where data were missing. In those cases, mother's education and occupation were used.

Because of the relative importance of the occupational prestige, Hollingshead (1965) recommended weighting education and occupational prestige when creating a construct. The social status measure was computed by employing weights where education was multiplied by four and occupational prestige by seven.

Age was included in the models as a standardized variable. In addition, it was predicted that the relationship between age and aspirations would be nonlinear. In other words, it was expected that aspirations would decline, but as people grew older, the decline in aspirations would become greater.

Capital

Measures of human capital included the highest degree earned, current position of the administrator and career path. *Highest degree earned* was collapsed into five categories: Ph.D., Ed.D., professional degree and other. Other consisted of those respondents who earned either master's or bachelor's degrees. Dummy-coded education variables were entered into the model with Ph.D. as the omitted category.

A series of dummy-coded variables (0=no, 1=yes) were entered for *current* position. Five dummy coded variables were entered for the different vice presidential positions with the vice president of academic affairs as the omitted category.

The 12 different dean's positions were collapsed into the four different Biglan (1973a, 1973b) disciplinary categories as modified by Becher (1987). Becher suggested, that based upon the nature of inquiry as viewed in the group and the nature of the culture in the group, faculty can be classified into four categories: hard pure, soft pure, hard applied and soft applied. The hard-pure group focuses on quantities and simplifications and includes faculty in physics and the physical sciences. The soft-pure group includes historians, anthropologists and other social scientists who focus on understanding and interpretation. The hard-applied group includes engineers and faculty from other science technology fields who focus on physical environments that result in the development of new products or techniques. Finally, those in the soft-applied group are concerned with the improvement of professional practice and include disciplines

such as education, business and economics. Four dummy-coded variables were constructed using these categories.

A continuous variable for *career path* was entered in the model to account for the impact of career trajectories on aspirations. The number of positions respondents held prior to their current position was summed. Included in the positions were faculty, other administrative positions, department chair, assistant/associate dean, dean and vice president. The variable was standardized prior to being entered into the model.

Two items were used to measure *social capital*. The first item was the composite measure of networks built using principal components analysis. The second social capital variable was a summative measure of the number of times respondents participated in activities where they could accumulate capital. Included in the measure were the number of times they performed paid consulting, attended a higher education management institute, served on the board of directors of a state or regional professional organization, served on the board of directors of a national professional organization, served on the board of directors for a scholarly organization, attended a professional workshop for women, and attended a professional workshop for minorities.

Several measures of *cultural capital* were included on the survey instrument. The cultural norms of higher education often predicate the acceptable qualifications of presidents. Because certain disciplines appear to allow for a greater accumulation of cultural capital than others (Lipsett & Ladd, 1976), discipline of highest degree and discipline of faculty appointment were included as measures of cultural capital. Again,

the Becher/Biglan categories were applied to these disciplines, creating a series of dummy-coded variables to be included in the models.

Individuals who earned their highest degree at prestigious institutions in fields that are culturally acceptable accumulate more cultural capital than those that do not (Zweigenhaft, 1993). A selectivity measure was used to represent the prestige of the institution where the respondents earned their degrees.

Additionally, most presidents follow a career path to the presidency that includes time as a faculty member (Birnbaum & Umbach, 2001; Cohen & March, 1974; Moore et al., 1983). This finding suggests that the culture of higher education expects faculty to have had a scholarly career. Those in the sample that were full-time faculty members and were productive scholars were expected to have accumulated more cultural capital than those that have not. Because the culture of higher education expects its leaders to have been scholars at one time in their career, senior administrators with strong scholarly records possess more cultural capital than those who were never academics. The scale for scholarly activity was included in the model to represent the capital accumulated from being a scholar.

Cultural capital also is accumulated through awards (Swartz, 1997).

Respondents were asked to indicate whether they had received awards in the form of memberships to undergraduate honors societies or national societies of distinguished scholars. They were also asked to indicate whether they had received awards for teaching, service or research. Awards of national research fellowships and honorary

degrees were included, as well. A summative measure of awards that included membership in an undergraduate honor society, membership in national societies of distinguished scholars, awards from professional or scholarly organizations and honorary degrees was entered into the model.

Because cultural capital is defined by cultural awareness and aesthetic preferences (Swartz, 1997), measures of cultural activities were included on the survey. The instrument measured the frequency that administrators participated in culturally acceptable activities, such as attending concerts, attending the theater, visiting art exhibits, attending intellectual lectures and visiting museums. Also included in this measure were the number of books they read and the number of times they volunteered in their community.

Other considerations

In an attempt to provide additional insight into the relationship between the independent variables and presidential aspirations, structural equation modeling was employed. A model was built in an attempt to disaggregate the expectancy variable into presidential aspirations and beliefs about qualifications. Because the relationships were so strong between these two constructs, the results suggested that it was reasonable to treat them as one construct. Several model combinations were attempted using the single presidential expectancy composite as the outcome variable. No additional information was gleaned from the structural models built, so only the regression results were presented.

Additionally, for the sake of parsimony, several variables were tested in the regression equations but were subsequently dropped because they were not significant and did not impact the relationships between other independent variables and the dependent variables. The number of children and an interaction term for gender and children were both non-significant predictors of the dependent variables and were dropped from the models. Because of the age of the respondents only a small proportion had children living at home, so this finding came as no surprise. Race and gender were interacted with both of the social capital variables and several of the cultural capital variables, and none were statistically significant predictors of the dependent variables. These interaction terms were subsequently dropped from the analyses.

DESCRIPTIVE ANALYSIS

Because so little is known about senior administrators, it is instructive to understand who they are. Beyond providing a general understanding, this descriptive analysis explored the research questions posed as they relate to forms of capital and career aspirations. The descriptive analysis was divided into six sections: demographic information, human capital, social capital, cultural capital, experiences with discrimination and career aspirations.

Demographic Information

Age, Race, Gender and Socio-economic Status

Most respondents were over 50 years of age with an average age of 54.7 years. Only slight age variations existed across current positions. Deans of math and science were the oldest with an average age of 57.4 years, followed by chief academic officers (56.7 years) and deans of education (56.0 years). The youngest senior administrators were in what might be considered non-academic track positions. Chief development officers were on average the youngest with an average age of 51.6 years. Chief student affairs officers and chief business officers were relatively young, as well, with average ages of 52.5 years and 52.9 years, respectively.

White men represented the largest proportion (61.7%) of those serving as deans and vice presidents at state colleges and universities (see Table 4). Approximately 30% of the sample was made up of women. More than 400 White women held senior positions, representing 25.9% of the sample. People of color made up 12.5% of the

entire group. African Americans represented the largest number of people of color at 8.0% of the sample, followed by Latinos/as (2.5% of the sample) and other minorities (2.0% of the sample).

Table 4

Race and gender of senior administrators

		Race/Ethi	nicity*		
		African		Other	
Gender	White	American I	Latino/a M	inority	Total
Frequency					
Male	999	78	26	27	1,130
Female	419	52	14	5	490
Total	1,418	130	40	32	1,620
Percent of total					
Male	61.7	4.8	1.6	1.7	69.8
Female	25.9	3.2	0.9	0.3	30.2
Total	87.5	8.0	2.5	2.0	100.0

Note. Because too few Asian Pacific Americans and multi-racial responded to the survey, all analyses report them as "other minorities."

As most of the literature suggested, the representation of women and people of color was quite segmented in the different senior positions (see Table 5). Few women served as deans of business, math, science, agriculture and engineering. Within the pool of respondents, women deans were over-represented in colleges of education, nursing and allied health. In positions of chief officers, women were under-represented in business and administration and over-represented in student affairs.

Race and gender of senior administrators examined by current position

Table 5

		Race/Ethnicity	iicity		Ğ	Gender	
1		African		Other			
Current position	White	White American Latino/a Minority	utino/a M	finority	Male	Male Female	Total
Dean-Math, Science, Agriculture, Engr.	86.0	7.0	1.8	5.3	89.5	10.5	114
Dean-Arts, Hum., Social & Beh. Sciences	88.6	6.4	3.4	1.7	71.2		236
Dean-Business	87.6	8.2	2.1	2.1	88.7		97
Dean-Education	89.3	5.3	3.1	2.3	63.4	36.6	131
Dean-Allied Health, Nursing	9.98	8.5	3.7	1.2	25.6		82
Chief-Academic Officer	87.2	9.1	2.3	1.4	71.7		219
Chief-Business, Administration Officer	92.4	4.7	1.4	1.4	82.0		211
Chief-Development Officer	91.0	5.5	2.1	1.4	69.0		145
Chief-Student Affairs Officer	79.1	15.5	3.2	2.3	63.2		220
Chief-Research, Graduate Officer	88.2	7.6	2.5	1.7	66.4		119
Other	89.1	8.7	0.0	2.2	47.8		46
TOTAL	87.5	8.0	2.5	2.0	8.69		1,620

People of color, particularly African Americans, were significantly overrepresented in the position of chief student affairs officer. Few people of color held the position of chief business and administrative officer and chief development officer. Among deans of math and science, people of color were slightly under-represented.

In order to obtain a measure of family socio-economic status, respondents were asked the highest degree of their parents and their parents' jobs while the respondent was in high school. Highest degree was scored on a six-point scale ranging from some high school or less to completed a graduate or professional degree. Parents' jobs were coded into the 7 categories used by Hollingshead (1964).

Table 6 shows the highest level of education, job prestige and social class of parents of senior administrators. Nearly one third of all respondents' parents' highest level of education was a high school degree. In fact, for almost half (49.2%) of all respondents neither parent attended college. Only 15.1% of the respondents had at least one parent with an advanced graduate or professional degree.

Some substantial differences between racial ethnic groups were seen in parents' education. The parents of almost 60% of African Americans and 60% of Latinos/as did not attend college. Nearly one third of the parents from both racial groups did not hold a high school diploma. The parents of White respondents were much more likely than Latinos/as and African Americans to complete high school, earn a bachelor's degree and earn an advanced graduate or professional degree. More than half of the parents of

Table 6 Socio-economic status of parents of senior administrators examined by race and gender

		Race/E	thnicity		Gen	ıder	
•		African		Other			
	White	American	Latino/a	Minority	Male	Female	Total
	%	%	%	%	%	%	%
Highest level of parental education							
Some HS or less	14.6	31.3	32.5	15.6	19.1	10.1	16.4
Completed HS	33.3	28.1	27.5	37.5	34.1	29.8	32.8
Some college	18.0	12.5	2.5	21.9	16.0	20.2	17.3
Completed BA/BS	14.5	9.4	10.0	6.3	12.6	16.5	13.8
Some profl/grad school Completed profl/grad	4.3	6.3	12.5	6.3	3.9	6.4	4.7
school	15.4	12.5	15.0	12.5	14.2	17.1	15.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Highest prestige job of parents*							
Unskilled employees	1.3	13.6	2.6	0.0	7.3	5.2	6.7
Machine operators/semi- skilled	8.4	16.0	17.9	12.9	10.6	6.4	9.4
Skilled manual	17.1	24.0		22.6	24.1		24.5
Clerical/sales/technical	15.0	7.2		12.9	9.6		9.8
Administrative	15.0	1.2	17.9	12.9	9.0	10.1	7.0
personnel/minor profl	12.5	3.2	7.7	9.7	13.5	10.5	12.6
Business managers/lesser							
profl	27.6	28.8	28.2	35.5	20.2	21.5	20.6
Higher executives/major							
prof1		7.2		6.5	14.6		16.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Social Class**							
I	1.1	12.9	2.6	0.0	2.3	1.5	2.0
II	17.4	33.1	15.4	19.4	20.6	14.2	18.7
II	29.4	18.5	33.3	38.7	29.8	26.5	28.8
IV	30.1	25.0	25.6	19.4	28.2	31.9	29.4
V	22.0	10.5	23.1	22.6	19.1	25.9	21.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note. *Hollingshead (1965) occupational prestige scale
**Hollingshead (1965) SES score derived using (education*4)+(occupation*7).
I=11-17, II=18-27, III=27-43, IV=44-60,V=61+

White respondents attended college. Approximately 15% earned an advanced graduate or professional degree, 15% earned a bachelor's degree and 18% attended some college.

Women respondents reported that their parents had somewhat higher levels of education than men. Almost 20% of the men reported that neither of their parents earned a high school degree, compared to approximately 10% of the women. More women than men stated that at least one of their parents earned a bachelor's degree (16.5% to 12.6%), attended graduate school (6.4% to 3.9%) and completed a graduate degree (17.1% to 14.2%).

Similar results were observed in the highest job prestige level of respondents' parents. Approximately 41% of all respondents indicated that they came from working-class families where parents worked in skilled manual, semi-skilled or unskilled positions. However, 20.6% of the parents worked in managerial positions (business managers, lesser professionals) and 16.5% worked as higher executives and major professionals.

Significant differences were seen across racial/ethnic groups in the job prestige of parents. While only 26.8% of Whites and 26.6% of Latinos/as came from working-class families, 53.6% of African Americans stated their parents worked in skilled manual, semi-skilled or unskilled positions. Only 7.2% of African Americans had at least one parent who was a higher executive or major professional, compared to 18.1% of Whites and 20.5% of Latinos/as.

Similar to education, men were slightly more likely to come from working-class families than women. Approximately 37% of the women were from the working-class compared to 42% of the men. Almost 21% of the women had at least one parent who was a higher executive and only 14.6% of the men had at least one parent holding a executive position.

An even more clear representation was revealed when the Hollingshead (1965) two-factor index of social position was applied to the data. Applying weights to the education and occupation prestige measures derived the index. Because of the relative importance of occupational prestige, its score was multiplied by seven, and education was multiplied by four. The resulting weighted scores were summed and the scores were categorized into five index bands. A score ranging between 11 and 17 is placed in the lowest grouping, a score between 18 and 27 in the second grouping, a score between 28 and 43 in the middle grouping, a score between 44 and 60 in the fourth grouping, and a score between 61 and 77 in the highest grouping.

The middle (28.8%) and fourth social positions (29.4%) were the most frequently occurring. More than 20% of the respondents came from families in the lowest two social positions. On the other end of the index, 21.2% came from families whose position was considered the highest on the index.

While the index was normally distributed, dramatic differences were seen when the social position was examined by race. Almost half (46%) of all African American respondents came from families in the two lowest social position groupings. Only

18.5% of the Whites and 18.0% of the Latinos/as came from the two lowest categories. On the other end of the index, only 10.5% of African Americans came from families in the highest social position compared to 22.0% of the Whites and 23.1% of the Latinos/as.

The differences between men and women were much less dramatic. Among the men in the sample, 22.9% grew up in families in one of the lowest two social positions, while just 15.7% of the women grew up in families positioned in one of the two lowest categories. On the top end of the index, more than one fourth of the women and less than one fifth of the men came from families in the highest social position.

Capital Accumulation

Human Capital

This section explored the human capital accumulated by senior administrators.

Some measures of human capital used in this study were education, career experiences and career trajectories.

Education

Most of the senior administrators in this study held advanced degrees. See table 7 for descriptive statistics on the highest degree earned by the sample. The most commonly held degree among senior administrators was the Ph.D. (62.1%) followed by master's degrees (16.6%) and Ed.D. (14.5%). Few held bachelor's (3.3%), professional (1.2%) or other degrees (2.3%).

Highest degree of senior administrators examined by current position

Table 7

			Dean			:		<u> </u>	Chief Officer	fficer				
•	Math,	Math, Arts, Human.			Allied						Research			
	Science, Social	Social &			Health	Dean		Business Develop-	Develop-	Student	8	8		Overall
	Ag. & Engr.	Ag & Engr. Behavioral Business Education & Nursing Total	Business	Education 2	& Nursing	Total	Academic & Admin.	& Admin.	ment		Affairs Graduate	Total	Other	Total
Bachelor's	0.0	0.4	0.0	0.0	0.0	0.2	0.0	13.9	13.9 14.7 0.5	0.5	0.0	0.0 5.6	2.3	3.3
Master's	2.6	3.0	1.0	0.0	1.2	1.8	6.0	57.7	49.7	25.2		27.5	0.8 27.5 11.4	16.6
Professional	0.0	0.4	4.2	0.0	1.2	6.0	0.9	2.9	3.5	0.0		0.0 1.4	2.3	1.2
Ph.D.	89.5	90.0	9.68	51.1	69.5	79.5	85.8	16.3	21.0	45.4		80.7 49.2	68.2	62.1
Ed.D.	6.1	2.2	2.1	48.9	15.9	15.9 13.9	10.6	7.7	9.1	28.0		17.6 14.8	15.9	14.5
Other	1.8	3.9	3.1	0.0	12.2	3.7	1.8	1.4	2.1	0.0		0.8 1.4	0.0	2.3
Total	100.0	1	0.00 100.0	100.0	100.0100.0	100.0	100.0		100.0 100.0 100.0	100.0	100.0 100.0	100.0	100.0	100.0

Examining the degrees by position held revealed some dramatic differences. While nearly 80% of all deans held a Ph.D., only 51.1% of the deans of education had earned a Ph.D., with the remainder of the deans of education holding an Ed.D. Almost 70% of the deans of allied health and nursing had earned a Ph.D., 15.9% earned an Ed.D., and 14.6% held some other type of degree.

Among the vice presidents, just under half (49.2%) had earned a Ph.D., 27.5% had earned a master's degree, 14.8% had earned an Ed.D., and 5.6% earned only a bachelor's degree. Almost all chief academic officers held a terminal degree (85.8% held a Ph.D. and 10.6 held an Ed.D). chief Research and Graduate School officers highest degrees were much like the chief academic officers, with 80.7% holding a Ph.D. and 17.6 holding an Ed.D. Far fewer chief student affairs officers had earned a Ph.D. (45.4%) and were more likely to have earned an Ed.D. (28.0%) or a master's degree (25.2%). chief business and administrative officers and chief development officers had the least amount of education of all chiefs. Less than one fourth of chief business and administrative officers held a terminal degree (16.3% held a Ph.D., and 7.7% held an Ed.D.). Most (57.7%) held a master's degree. Similarly, just under one third of the chief development officers held a terminal degree (21.0% held a Ph.D., and 9.1% held and Ed.D.). Nearly half held a master's degree.

Table 8 shows the highest degree earned broken down by race/ethnicity and gender. Some slight differences were seen by race. African Americans were slightly less likely than Whites to have earned a Ph.D. (58.5% compared to 61.9%). Other people of

color and Latinos/as were the most likely to hold a Ph.D. Compared to other racial ethnic groups, African Americans were the most likely to hold an Ed.D. (22.3%). Only 14.0% of the Whites, 12.5% of the Other group and 7.5% of Latinos/as had earned an Ed.D. Approximately 17% of the Whites indicated their highest degree was a Master's, compared to 13.1% of the African Americans and 15.0 of the Latinos/as.

Table 8

<u>Highest degree of senior administrators examined by race and gender</u>

		Race/Eth	nicity		Ger	nder	
		African		Other			
	White	American 1	Latino/a	Minority	Male	Female	Total
	%	%	%	%	%	%	%
Bachelor's	3.3	2.3	7.5	3.1	3.1	3.7	3.3
Master's	17.2	13.1	15.0	6.3	17.2	15.1	16.6
Professional	1.1	2.3	2.5	0.0	1.2	1.4	1.2
Ph.D.	61.9	58.5	67.5	78.1	63.8	58.1	62.1
Ed.D.	14.0	22.3	7.5	12.5	12.8	18.4	14.5
Other	2.5	1.5	0.0	0.0	1.9	3.3	2.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Only small differences were seen when examining degrees by gender. Women were slightly less likely than men to hold a Ph.D. However, women were more likely than men to have earned an Ed.D.

Respondents earned their degrees in a variety of disciplines (see Table 9). More than one third of the senior administrators earned their highest degree in education. In fact, the two most common degree fields of respondents were higher education (11.7%)

Discipline of highest degree of senior administrators examined by current position

			Dean				Ch	Chief Officer	cer			
		Arts, Human.										
	Math, Science	Social &		7	Allied Health		Business	Develop-	Student	Research &		Overall
	Ag. & Engr.	Behavioral	Business	Education	& Nursing	Academic & Admin.	& Admin.	ment	Affairs	Graduate	Other	Total
Arts & Humanities	0.0	44.5	1.0		1.2	22.4	2.4	15.9	1.8	8.4	17.4	12.8
Business	0.0		52.6	0.8	0.0	5.5	52.1	9.0	1.8	0.8	8.7	12.3
Education	7.9	7.2	6.2	88.5	45.1	22.4	26.1	35.2	79.5	28.6	34.8	34.9
Engineering	32.5	0.0	0.0	1.5	0.0	1.8	0.9	0.7	0.0	2.5	2.2	3.1
Allied Health	0.0		0.0	0.8	40.2	1.8	0.0	0.0	0.0	4.2	4.3	2.8
Sciences	41.2	8.9	1.0	0.0	2.4	11.9	0.9	0.7	0.9	26.1	8.7	8.1
Social & Behavioral Sciences	4.4	24.2	30.9	3.8	3.7	18.7	9.5	12.4	9.1	19.3	15.2	14.1
Other	13.2	16.1	8.2	3.8	7.3	15.5	8.1	26.2	8.9	10.1	8.7	11.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

and educational administration (8.0%). The next most common disciplinary groupings were business and the social sciences (14.1% each) followed by arts and humanities (12.5%). Only 8.1% of the respondents earned their highest degree in the physical or biological sciences. Few earned degrees in engineering (3.1%) or the health sciences (2.8%).

After collapsing the disciplines into larger categories, some interesting disciplinary differences were seen across current positions. As a rule, deans typically earned their highest degrees in disciplines related to their deanships. As the one exception to this rule, nearly 60% of deans of allied health earned their highest degree outside of health related disciplines, most commonly in education (45.1%).

Chief officers earned their degrees from a variety of disciplines. Chief academic officers and chief research and graduate officers had the greatest variation of disciplines where they earned their degrees. The most common disciplines for chief academic officers were arts and humanities (22.4%) and education (22.4%). A substantial number also earned degrees in the social and behavioral sciences (18.7%) and the physical and biological sciences (11.9%). The largest percentage of chief research officers earned degrees in education (28.6%) and the physical and biological sciences (26.1%). Most business officers earned degrees in business (52.1%) and education (26.1%). More than one third of the development chiefs earned their degrees in education. A substantial number earned degrees in the arts and humanities (15.9%) and the social and behavioral

sciences (12.4%). Nearly all student affairs chiefs earned their degree in education (79.5%). Approximately 9% earned their degree in the social and behavioral sciences.

Career experiences

Respondents had a broad range of experience prior to their current position (see Table 10). Nearly every senior administrator (96.2%) worked in higher education prior to their current position. The only exceptions were chiefs of business and chiefs of

Career experiences of senior administrators prior to current position

Table 10

Arts, Human. Math, Science Social & He Ag. & Engr. Behavioral Business Education No. 174.6 73.3 57.7 69.5 Dean 34.2 35.2 53.6 41.2 S1.8 50.0 51.5 61.1 VP 8.8 9.7 6.2 6.1 0.0 0.0 0.0 2.1 0.0 Affairs 0.9 0.8 0.0 0.0 fairs 2.6 4.2 4.1 2.3 thank that it is a second of the seco	Dean			Chief Officer)fficer				
Math, Science Social & Behavioral Health & He									
Ag. & Eng. Behavioral Pusiness Education Nursing me faculty 95.6 96.2 92.8 94.7 96.3 chair 74.6 73.3 57.7 69.5 61.0 /Assist. Dean 34.2 35.2 53.6 41.2 39.0 /Assist. VP 8.8 9.7 6.2 6.1 48.8 /Assist. VP 8.8 9.7 6.2 6.1 48.8 Admin. 0.0 0.0 0.0 0.0 1.2 Acad. Affairs 0.9 0.8 0.0 0.0 1.2 Research 4.8 2.2 4.1 2.3 1.2 Development 0.0 0.4 0.0 0.0 0.0 ent 0.9 0.4 0.0 0.0 0.0 Administrative 8.8 9.3 4.1 13.0 3.7 Administrative 8.8 9.3 4.1 13.0 0.0	Health &	Jean	Business	Develop-	Student	Student Research &	00		Overall
me faculty 95.6 96.2 92.8 94.7 96.3 chair chair 74.6 73.3 57.7 69.5 61.0 34.2 35.2 53.6 41.2 39.0 51.8 50.0 51.5 61.1 48.8 9.7 6.2 6.1 6.1 6.1 8.8 9.7 6.2 6.1 6.1 6.1 8.8 9.7 6.2 6.1 6.1 6.1 8.8 9.7 6.2 6.1 6.1 6.1 8.8 9.7 6.2 6.1 6.1 6.1 8.8 9.7 6.2 6.1 6.1 6.1 9.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	Business Education Nursing	otal Academic	mic & Admin.	ment	Affairs	Graduate	Total	Other	Total
chair /Assist. Dean 34.2 35.2 53.6 41.2 39.0 51.8 50.0 51.5 61.1 48.8 /Assist. VP 8.8 9.7 6.2 6.1 6.1 Admin. Business 0.0 0.0 2.1 0.0 0.0 Student Affairs 0.9 0.8 0.0 0.0 1.2 Acad. Affairs 2.6 4.2 4.1 2.3 1.2 Research 0.0 0.4 0.0 0.0 0.0 ent 0.9 1.7 2.1 0.8 1.2 Administrative 8.8 9.3 4.1 13.0 3.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	92.8 94.7 96.3			22.8	15.9	93.3	46.3	9.69	6.99
/Assist. Dean 34.2 35.2 53.6 41.2 39.0 51.8 50.0 51.5 61.1 48.8 /Assist. VP 8.8 9.7 6.2 6.1 48.8 /Assist. VP 8.8 9.7 6.2 6.1 48.8 Admin. 0.0 0.0 0.0 0.0 0.0 0.0 Business 0.0 0.0 0.0 0.0 0.0 0.0 0.0 Student Affairs 2.6 4.2 4.1 2.3 1.2 Research 4.8 2.2 4.1 2.3 1.5 Development 0.0 0.4 0.0 0.0 0.0 ent 0.9 1.7 2.1 0.8 1.2 Administrative 8.8 9.3 4.1 13.0 3.7 0.0 0.0 0.0 0.0 0.8 1.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	57.7 69.5 61.0		66.7 6.2	8.3	8.9	58.0	27.9	39.1	44.9
51.8 50.0 51.5 61.1 48.8 ./Assist. VP 8.8 9.7 6.2 6.1 48.8 Admin. 0.0 0.0 0.8 3.1 0.0 0.0 Business 0.0 0.0 0.0 2.1 0.0 0.0 Student Affairs 2.6 4.2 4.1 2.3 1.2 Research 4.8 2.2 4.1 2.5 1.5 Development 0.0 0.4 0.0 0.0 0.0 ent 0.9 1.7 2.1 0.8 1.2 Administrative 8.8 9.3 4.1 13.0 3.7 0.0 0.0 0.0 0.0 0.0 0.0	.2 53.6 41.2 39.0				34.1	35.3	23.3	41.3	30.4
Admin. 8.8 9.7 6.2 6.1 6.1 Admin. 0.0 0.8 3.1 0.0 0.0 Business 0.0 0.0 2.1 0.0 0.0 Student Affairs 0.9 0.8 0.0 0.0 1.2 Acad. Affairs 2.6 4.2 4.1 2.3 1.2 Research 4.8 2.2 4.1 2.5 1.5 Development 0.0 0.4 0.0 0.0 0.0 ent 0.9 1.7 2.1 0.8 1.2 Administrative 8.8 9.3 4.1 13.0 3.7 0.0 0.0 0.0 0.0 0.8 1.2	.0 51.5 61.1 48.8				33.2	47.9	32.5	39.1	40.9
Admin. 0.0 0.8 3.1 0.0 0.0 Business 0.0 0.0 2.1 0.0 0.0 Student Affairs 0.9 0.8 0.0 0.0 1.2 Acad. Affairs 2.6 4.2 4.1 2.3 1.2 Research 4.8 2.2 4.1 2.5 1.5 Development 0.0 0.4 0.0 0.0 0.0 0.0 ent 0.9 1.7 2.1 0.8 1.2 Administrative 8.8 9.3 4.1 13.0 3.7 O.0 0.0 0.0 0.8 1.2	6.2 6.1 6.1				29.5	18.5	28.3	17.4	19.7
Business 0.0 0.0 2.1 0.0 0.0 Student Affairs 0.9 0.8 0.0 0.0 1.2 Acad. Affairs 2.6 4.2 4.1 2.3 1.2 Research 4.8 2.2 4.1 2.5 1.5 Development 0.0 0.4 0.0 0.0 0.0 ent 0.9 1.7 2.1 0.8 1.2 Administrative 8.8 9.3 4.1 13.0 3.7 0.0 0.0 0.0 0.8 1.2	3.1 0.0 0.0				0.0	0.0	6.2	0.0	3.8
Student Affairs 0.9 0.8 0.0 0.0 1.2 Acad. Affairs 2.6 4.2 4.1 2.3 1.2 Research 4.8 2.2 4.1 2.5 1.5 Development 0.0 0.4 0.0 0.0 0.0 0.0 ent 0.9 1.7 2.1 0.8 1.2 Administrative 8.8 9.3 4.1 13.0 3.7 0.0 0.0 0.0 0.8 1.2	0.0 0.0				0.5	8.0	7.1	0.0	4.1
Acad. Affairs 2.6 4.2 4.1 2.3 1.2 Research 4.8 2.2 4.1 2.5 1.5 Development 0.0 0.4 0.0 0.0 0.0 ent 0.9 1.7 2.1 0.8 1.2 Administrative 8.8 9.3 4.1 13.0 3.7 0.0 0.0 0.0 0.8 1.2	0.0 0.0 1.2				41.8	8.0	11.9	4.3	7.1
Research 4.8 2.2 4.1 2.5 1.5 Development 0.0 0.4 0.0 0.0 0.0 ent 0.9 1.7 2.1 0.8 1.2 Administrative 8.8 9.3 4.1 13.0 3.7 0.0 0.0 0.0 0.8 1.2	4.1 2.3 1.2				1.8	5.0	11.5	6.5	8.0
Development 0.0 0.4 0.0 0.0 0.0 0.0 ent 0.9 1.7 2.1 0.8 1.2 Administrative 8.8 9.3 4.1 13.0 3.7 0.0 0.0 0.0 0.8 1.2	4.1 2.5 1.5				0.8	9.7	3.1	14.3	1.9
Administrative 8.8 9.3 4.1 13.0 3.7 0.0 0.0 0.0 0.8 1.2	0.0 0.0 0.0				1.8	8.0	9.8	4.3	5.1
Administrative 8.8 9.3 4.1 13.0 3.7 0.0 0.0 0.0 0.8 1.2	2.1 0.8 1.2				0.5	0.0	2.3	2.2	1.9
0.0 0.0 0.0 0.8 1.2	4.1 13.0 3.7				43.6	16.0	33.7	23.9	23.1
	0.0 0.8 1.2				4.1	8.0	1.2	2.2	3.8
92.0 95.3 95.8	97.4 92.6 95.3 93.8 9.				15.9	94.0	42.7	71.7	64.9

development, where 12.3% and 15.1%, respectively, had no higher education experience.

Of all senior administrators, 66.9% held a position as a full-time member of the faculty prior to their current position, and 64.9% earned tenure. Almost all deans, chief academic officers, and chief research officers were academics prior to their administrative career. Most held a full-time faculty position and earned tenure at some time in their career. Only a small percentage of student affairs chiefs, development chiefs and business chiefs served as full-time members of the faculty and earned tenure.

More than two thirds of all deans served as a department chair prior to their current position. Almost three quarters of math, science, agriculture and engineering deans and arts, humanities, behavioral and social sciences deans at one time served as a department chair. Fewer deans of business (57.7%), allied health and nursing (61.0%), and education (69.5%) were once department chairs.

Almost 40% of all deans served as an associate or assistant dean at one time in their career. More than half of all business deans and 41% of all education deans were an associate or assistant dean at one time during their career. The position was less common in deans of math, science, agriculture and engineering deans (34.2%) and arts, humanities, behavioral and social sciences (35.2%). A majority of the deans (52.6%) had served as a dean prior to their current position. Deans of education were most likely (61.1%) and deans of allied health and nursing were least likely (48.8%) to have held a deanship prior to their current position.

In terms of work experiences, chief academic officers and chief research and graduate studies officers most resembled the deans. Two thirds of the academic chiefs and more than half of the research chiefs served as a department chair at one time during their career. Similarly, nearly two thirds of the academic chiefs and almost one half of the research chiefs were a dean prior to their current position. Many (42.5%) of the chief academic officers were experienced at the position having served at least once as an academic chief prior to their current position.

Relative to the academic or research chiefs, chief business, student affairs and development officers had more varying career experiences. Most of the administrators who held these positions seemed to have worked in a variety of non-academic administrative positions before becoming a chief officer. Approximately 49% of the business officers, 43% of the development officers and 44% of the student affairs officers held "other administrative" positions for varying lengths of time. A large percentage (31.8% of business officers, 22.8% of development officers and 29.5% of student affairs offers) also served as assistant or associate vice presidents at some time during their career. Approximately 23% of the business chiefs, 46% of the development chiefs and 42% of the student affairs chiefs served in their current role at another institution prior to their current appointment.

Career Trajectories

Another way by which to examine the career experiences of senior administrators is to explore their career trajectories. Morris (1981) suggested that one of

three paths lead to the deanship. The first trajectory, considered the most traditional, he called the professional ascension. This trajectory begins with a faculty post, followed by a stint as department chair, followed by a position as assistant or associate dean, and finally a position as dean (Socolow, 1978). The other two paths were considered less traditional. In the second trajectory, the trained administrator follows the same path as the traditional ascension but does not served as a faculty member. The final path is referred to as the managerial outside transfer or political appointment. These deans have no experience working in higher education prior to taking their post.

Table 11 shows the distribution of deans following one these trajectories.

Almost all deans (95.3%) in the sample followed the traditional/professional ascension trajectory. Very little variation was seen between the different types of deans. The most frequently occurring trajectory to the deanship was faculty, chair and then dean. Half or nearly half of all deans of math, science, agriculture, engineering, arts, humanities, and social and behavioral sciences followed this trajectory. Approximately 40% of education, health and allied health deans followed this trajectory. Business deans were the only group to follow other trajectories more frequently. They were more likely to follow the path of faculty, chair, and associate/assistant dean to the deanship.

Subsequently, few deans followed nontraditional trajectories to positions. The greatest proportion of nontraditional trajectories (7.2%) was found among business deans. More than half of the business deans who followed the nontraditional trajectories were outside transfers or political appointments.

Career Trajectories of Deans

			Arts, Human.				
	A.	Math, Science Social &	Social &			Allied Health	
Trajectory		Ag. & Engr. Behavioral Business Education & Nursing	ehavioral E	usiness E	lucation	& Nursing	Total
Traditional/	Faculty, chair & Assoc./Assist dean	22.8	22.9	30.9	26.7	20.7	24.5
Professional	Faculty & Chair	50.0	48.3	24.7	39.7	40.2	42.4
Ascension	Faculty	11.4	14.0	16.5	15.3	18.3	14.7
	Faculty & Assoc./Assist dean	11.4	11.0	20.6	13.0	17.1	13.6
	SUBTOTAL	92.6	96.2	92.8	94.7	96.3	95.3
Nontraditional/ Chair	Chair	1.8	1.7	1.0	2.3	0.0	1.5
Trained Admin. Assoc./Assist.	Assoc./Assist. dean	0.0	0.8	1.0	0.8	1.2	0.8
	Chair & Assoc./Assist. Dean	0.0	0.4	1.0	0.8	0.0	0.5
Outside Transfer None	None	2.6	0.8	4.1	1.5	2.4	2.0
	SUBTOTAL	4.4	3.8	7.2	5.3	3.7	4.7
	TOTAL	100.0	100.0	100.0	100.0	100.0	100.0

Morris' trajectories were modified slightly to explore the careers of chief officers. The positions of dean and associate/assistant vice president (AVP) were added to the trajectories to reflect the possibility of chiefs serving in one of these roles. Table 12 shows the career trajectories of chief officers. Similar to academic deans, nearly all of the chief academic officers and chief research and graduate officers followed the traditional/professional ascension trajectory. The most commonly occurring trajectory between these two groups of chief officers was faculty, department chair, and dean.

The development, business and student affairs chiefs were most likely to follow nontraditional trajectories. In fact, the most common modified Morris trajectory seen among this group of chiefs was outside transfer. Approximately 59% of the development chiefs, 53% of the business chiefs and 36% of the student affairs chiefs held none of the positions thought to be part of the trajectory of chief officers.

Career Trajectories of Chief Officers

Table 12

			Business	Jevelop-	Student F	Business Develop- Student Research &	CO
Trajectory		Academic	& Admin.	ment	Affairs	Graduate	Total
Traditional/	Dean, Chair & Faculty	37.4	0.5	2.8	1.8	26.9	13.5
Professional	Faculty	8.9	7.1	7.6	4.1	17.6	7.8
Ascension	Chair & Faculty	8.2	3.8	4.8	2.7	21.0	7.0
	Dean & Faculty	10.5	0.0	1.4	3.6	11.8	5.4
	AVP & Faculty	5.9	3.8	5.5	2.7	2.5	4.2
	AVP, Chair & Faculty	9.6	0.5	0.7	0.5	5.0	3.3
	AVP, Dean, Chair & Faculty	10.0	0.5	0.0	0.0	5.0	3.2
	AVP, Dean & Faculty	6.4	0.0	0.0	0.5	3.4	2.1
	SUBTOTAL	95.0	17.1	22.8	15.9	93.3	46.3
Nontraditional/	/ AVP	0.0	26.1	15.2	18.6	2.5	13.2
Trained Admin.	Dean	0.0	1.9	2.1	20.5	0.8	0.9
	AVP & Dean	0.0	0.0	1.4	6.4	0.0	2.0
	Dean & Chair	0.5	0.5	0.0	0.5	0.0	0.3
	AVP & Chair	0.5	0.0	0.0	0.0	0.0	0.3
	Chair	0.0	0.5	0.0	0.5	0.0	0.2
	AVP, Dean & Chair	0.5	0.0	0.0	0.0	0.0	0.1
Outside Transfer None	rNone	2.7	53.1	58.6	36.8	3.4	31.5
	SUBTOTAL	5.0	82.9	77.2	84.1	6.7	53.7
	TOTAL	100.0	100.0	100.0	100.0	100.0	100.0

Social capital

For this study, networks, mentoring and professional activities were used to represent social capital. Most respondents accumulated a great deal of social capital (see Table 13). Almost all stated they had colleagues who they could rely on for advice (94.5%) and called their colleagues seeking advice occasionally or often (93.7%). Nearly three quarters of the respondents agreed or strongly agreed that they had a broad network of colleagues. Approximately 81% believed their networks were helpful in their career success.

In terms of mentoring, 70.5% agreed or strongly agreed that they had several mentors throughout their career. Only slightly fewer believed their mentor had taken a personal interest in their career (63.5%) or had helped in their career advancement (64.5%). However, less than half (45.1%) of the respondents stated they currently had a mentor.

A large percentage of the respondents participated in activities that allow for accumulation of social capital. Nearly all (83.6%) reported they had performed paid external consulting at least once. More than three quarters (79.0%) of the senior administrators were members of boards of civic or business organizations.

Approximately 71% had served on boards of state or regional professional organizations. Many of the respondents had accumulated social capital by attending higher education management institutes (40.3%) and professional workshops for women (32.0%) and people of color (25.1%).

Social capital accumulated by senior administrators examined by race and gender

Table 13

		Race/I	Race/Ethnicity		Ge	Gender	
1		African		Other			
	White	White American Latino/a Minority	Latino/a	Minority	Male	Male Female Total	Total
	%	%	%	%	%	%	%
Mentoring (strongly agree or agree)	!	i					
Have someone consider a mentor	42.9	66.7		53.1	41.7	52.9	45.1
Mentor has taken interest in career	63.7	63.0		62.5	60.1	71.4	63.5
Had several mentors in career	70.4	74.2	65.0	62.5	69.7	72.2	70.5
Mentor played role in career advancement	63.7	73.2		59.4	62.4	69.2	64.5
Mentor provided information/advice*	80.2	83.3		78.1	78.6	83.8	80.2
Networks (strongly agree or agree)							
Network is small with few close colleagues	39.7	39.2		53.1	45.2	28.0	40.0
Have a broad network of colleagues	73.0	82.8		71.9	71.4	79.5	73.8
Networks helpful in career success	9.62	86.7		90.6	79.4	83.1	80.5
Colleague told about jobs*	94.8	91.3	95.0	93.5	94.4	94.9	94.5
Phoned colleague for advice*	93.6	94.5		93.8	92.4	96.5	93.7
Can rely on colleagues for advice	94.7	93.8		84.4	93.8	95.7	94.4
Note. *Responded "occasionally" or "frequently"							

Table 13 continues

Table 13 Continued

Activities (at least once)							
Paid external consulting	83.1	8 6.9 8	87.5 87.5	87.5	84.6	84.6 81.4	83.6
Higher ed. management institute	38.4	58.5	58.5 60.0	25.0	38.2	45.1	40.3
Board of directors-state or regional organization	71.2	66.2	70.0	9.59	70.2	71.8	70.7
Board of directors-national organization	41.7	52.3	42.5	34.4	40.1	48.0	42.5
Board of directors-scholarly organization	33.1	1 36.9 4	45.0	34.4	33.8	33.7	33.8
Board of directors-civic or business	78.8	81.5	87.5	9.59	79.2	78.4	79.0
Prof. workshop for women	30.5	46.9	46.9 40.0	28.1	15.5 7	70.2	32.0
Prof. workshop for minorities	19.8	65.4	65.0	19.8 65.4 65.0 43.8	24.5	26.3	25.1

Note.*Responded "occasionally" or "frequently"

Race and Gender

Different racial/ethnic groups reported varying levels of social capital. African Americans indicated they had the greatest networks of all the groups. Approximately 83% stated they had a broad network of colleagues, compared to 73% of the Whites and 75% of the Latinos/as. More African Americans (86.7%) than Whites (77.6%) and Latinos/as (82.5%) believed their networks were helpful in their career success.

African Americans also were more involved than Whites and Latinos/as in mentoring relationships. For example, two thirds of the African Americans reported currently having a mentor, while less than half of the Latinos/as (47.5%) and Whites (42.9%) indicated they had a mentor. Approximately 73% of African Americans believed a mentor played a role in their career advancement, while 64% of the Whites believed a mentor played a role.

Except for serving on boards of state or regional organizations, African

Americans and Latinos/as were more likely than Whites to engage in activities that
allow for the accumulation of social capital. Approximately 59% of the African

Americans and 60% of the Latinos/as had attended a higher education management
institute, while only 38% of the Whites had attended. Many of these institutes attended
by Latinos/as and African Americans were designed specifically for people of color.

For both groups, nearly two thirds of the respondents attended a professional workshop
for people of color. More than half (52.3%) of the African Americans served on boards
of national professional organizations, compared to 41.7% of the Whites.

Approximately 88% of the Latinos/as and 82% of the African Americans had served on boards of business or civic organizations. In contrast, 79% of the Whites served on boards of business or civic organizations.

Women indicated broader networks than men. Approximately 80% of the women indicated they had a broad network of colleagues, while only 71% of the men stated they had broad professional networks. Similarly, only 28% of the women and 45% of the men had small networks with few close colleagues.

Women also were more engaged in mentoring activities than men. More than half of the women currently had a mentor, while only 42% of the men reported currently being mentored. Women also were more likely than men to have a mentor that took an interest in their career (71.4% compared to 60.1%) and to believe that their mentor played a role in their career advancement (69.2% compared to 62.4%).

Women were nearly as likely, and in some cases more likely, to participate in activities where they could accumulate social capital. Women were slightly less likely than men to have engaged in paid external consulting (81.4% compared to 84.6%). However, women more frequently attended higher education management institutes (45.1% compared to 38.2%) and served on boards of national professional organizations (48.0% compared to 40.1%). An overwhelming majority (70.2%) of the women had attended a professional workshop for women.

Current Position

A few differences in social capital accumulation were observed across current position (see Table 14). Compared to deans, chief officers reported higher levels of engagement in mentoring relationships. Chiefs were more likely than deans to currently have a mentor and to have had several mentors throughout their career. The mentors of chiefs played a slightly more active role in their careers than the mentors of deans.

Almost 66% of the chiefs believed a mentor had taken an interest in their career compared to 60% of the deans. Similarly, 66% of the chiefs and 62% of the deans indicated their mentor played a role in their career advancement.

Deans and chief officers engaged in social capital related activities with differing frequency. Deans were more likely than chief officers to engage in paid external consulting (90.5% compared to 83.6%) and to serve on the boards of national professional organizations (47.6% compared to 42.5%) and scholarly organizations (45.6% compared to 33.8%). Chief officers were more likely than deans to attend higher education management institutes (40.3% compared to 36.8%) and to serve on the board of directors of civic and business organizations (79.0% compared to 72.1%).

Among deans, education deans reported the greatest involvement in mentoring relationships. Approximately three quarters of the deans of education indicated they had several mentors in their career (74.6%), had mentors who had taken an interest in their career (70.8%), and had mentors who played a role in their career advancement (75.6%).

Several other deans reported relatively high engagement in mentoring relationships. Deans of allied health and deans of the arts, humanities and social sciences were most likely to be currently engaged in a mentoring relationship. More than two thirds of business deans (71.9%) and arts, humanities and social science deans (69.4%) had several mentors in their careers. In terms of taking an active role in their careers, 63.1% of the arts, humanities and social science deans believed their mentor took an interest in their career and played a role in their career advancement.

Accumulated social capital examined by current position of senior administrators

Table 14

			Dean	u			C	Chief Officer	i ci		
	Math,	Math, Arts, Human.			Alllied						
	Science,	Social &			Health	Я	Business Develop- Student Research	evelop- !	Student R	esearch	Overall
	Ag. & Engr.	Behavioral	Business	Education &	Business Education & Nursing Total Academic & Admin.	Academic &	Admin.	ment	Affairs &	Affairs & Grad. Total Other Total	Total
Mentoring (strongly agree or agree)											
Have someone consider a mentor	34.2	41.0	38.5	39.7	44.4 39.6	48.1	39.8	55.9	56.8	42.4 48.8 50.0	45.1
Mentor has taken interest in career	47.3	63.1	54.8	3.07	57.3 60.0	59.8	59.5	8.89	80.9	55.9 65.8 67.4	63.5
Had several mentors in career	62.3	69.4		74.6	62.2 68.7	72.0	8.99	73.6	80.9	64.4 72.2 60.9	70.5
Mentor played role in career advancement	57.9	63.1	52.1	75.6	55.6 62.1	60.4	62.9	8.89	77.1	58.5 66.0 66.7	64.5
Mentor provided information/advice*	68.1	78.2	76.8	80.8	72.5 76.1	9.98	78.3	83.8	85.8	79.7 83.2 80.4	80.2
Networks (strongly agree or agree)											
Network is small with few close colleagues	44.2	49.4	38.5	31.0	27.2 40.5	43.6	46.0	35.5	35.0	36.439.937.0	40.0
Have a broad network of colleagues	69.3	6.09	8.69	85.5	91.4 72.3	6.79	71.0	75.7	83.2	79.7 75.1 71.1	73.8
Networks helpful in career success	77.0	74.8	75.0	87.7	86.3 79.2	74.3	77.5	86.7	87.2	83.1 81.3 84.4	80.5
Colleague told about jobs*	88.4	91.5	92.7	95.4	93.8 92.2	98.2	9.96	95.1	93.5	96.696.097.8	94.5
Phoned colleague for advice*	8.98	89.4	6.96	91.6	91.4 90.7	98.1	93.8	96.5	7.76	90.7 95.8 93.5	93.7
Can rely on colleagues for advice	89.5	94.1	88.2	96.1	92.6 92.6	96.3	96.2	91.7	97.3	94.9 95.6 95.7	94.4
Note. *Responded "occasionally" or "frequently"	"freque	ently"									

Table 14 continues

Table 14 Continued

3.000			Dean				S	Chief Officer	ا ا		
	Math,	Math, Arts, Human.			Alllied						
	Science,	Social &			Health		Business Develop- Student Research	evelop- S	tudent R	esearch	Overall
	Ag. & Engr.	Behavioral	Business	Education	Business Education & Nursing Total Academic & Admin.	Academic &	& Admin.	ment 4	Affairs 8	Affairs & Grad. Total Other Total	Total
Activities (performed at least once)											
Paid external consulting	90.4	84.7	94.8	93.9	96.3 90.5	93.6	63.0	74.5	75.5	90.8 78.8 82.6 83.6	83.6
Higher ed. management institute	21.1	39.0	35.1	48.1	36.636.8	45.2	49.8	44.1	45.5	26.1 43.7 23.9	40.3
Board of directors-state or regional	64.0	63.6	74.2	88.5	86.6 73.0	73.5	62.1	63.4	9.87	69.7 70.0 50.0	70.7
Board of directors-national	47.4	37.7	41.2	62.6	59.847.6	45.7	22.3	30.3	46.8	52.1 38.9 39.1	42.5
Board of directors-scholarly	38.6	42.8	50.5	51.1	48.845.6	37.9	11.8	22.1	17.3	44.5 25.3 32.6	33.8
Board of directors-civic or business	61.4	66.5	9.78	77.1	76.8 72.1	82.2	87.2	89.7	84.5	73.1 83.9 78.3	79.0
Prof. workshop for women	18.4	27.1	21.6	42.7	56.131.5	32.4	20.4	31.0	45.0	32.8 32.5 30.4	32.0
Prof. workshop for minorities	18.4	22.0	19.6	31.3	35.424.5	26.0	17.1	20.7	35.0	26.1 25.3 28.3	25.1
Note.*Responded "occasionally" or	r "frequently"	intly"									

Compared to other deans, math, science, agriculture and engineering deans were least involved in mentoring relationships. Only 34.2% of the math and science deans indicated they currently had a mentor and 62.2% indicated several mentoring relationships throughout their career. Less than half (47.3%) believed a mentor had taken an interest in their career. Approximately 58% believed a mentor played a role in their career advancement.

Math, science, agriculture and engineering deans were the least likely of all deans to be involved in mentoring relationships throughout their career. Approximately 75% of the deans of education indicated they had several mentors in their career and Similarly, 70.8% of the education deans claimed their mentor has taken an interest in their career, while only 47.3% of the math and science deans and 54.8% of the business deans claim their mentor was interested in their career.

Although most deans reported participation in a variety of activities, deans of education appeared to be most frequently engaged in activities in which they could accumulate social capital. Compared to other deans, deans of education were most likely to attend a higher education management institute (48.1%), serve on the board of state or regional professional organizations (88.5%), serve on the board of directors of national professional organizations (62.6%) and serve on the board of directors of scholarly organizations (51.1%). Deans of business were most likely to serve on the board of civic or business organizations (87.6%), and deans of allied health and nursing were most likely to participate in paid external consulting (96.3%).

Deans of math and science and deans of arts, humanities and social sciences appeared to be least engaged in external activities. Compared to the other deans, deans of math and science were the least likely to attend a higher education management institute (21.1%), and serve on the board of directors of scholarly organizations (38.6%) and serve on the board of civic or business organizations (61.4%). deans of arts, humanities and social sciences were least likely to engage in external consulting (84.7%), to serve on the board of state or regional professional organizations (63.6%), and to serve on the board of directors of national professional organizations (37.7%).

Among chief officers, student affairs chiefs were most likely to be engaged in mentoring relationships. Approximately 57% of the student affairs chiefs reported currently having a mentor. More than 80% indicated having several mentors throughout their career. More than three quarters believed a mentor had taken an interest in their career (80.9%) and had played a role in their career advancement (77.1%).

Development chiefs also reported high engagement in mentoring activities.

More than half (55.9%) of the development officers reported currently having a mentor.

Nearly three quarters (73.6%) indicated they had several mentors during their career.

Approximately 69% of the development chiefs believed a mentor had taken an interest in their career and had played a role in their advancement.

Academic chiefs, business and administration chiefs and research chiefs all reported relatively low engagement in mentoring activities. Only 39.8% of the business chiefs, 42.4% of the research chiefs and 48.1% of the academic chiefs reported they

currently had a mentor. Approximately 64.4% of the chief research officers indicated having several mentors in their career. Approximately 60% of the Academic and business chiefs and 56% of the research chiefs believed a mentor took an interest in their career. Less than two thirds believed a mentor had aided in their career advancement.

In terms of networks, chief officers were only slightly more likely than deans to report broad networks. Approximately 75% of the chief officers indicated they had broad networks compared to 72% of the deans. Eighty-one percent of the chiefs and 79% of the deans believed their networks were helpful in their career success.

Among deans, education and allied health deans had the broadest networks. Almost all allied health (91.4%) and education (85.5%) indicated they had a broad network of professional colleagues. Similarly, most believed their networks were helpful in their career success (87.7% of the education deans and 86.3% of the allied health deans).

Deans of arts, humanities and social sciences and deans of math, science, agriculture and engineering were least likely of all deans to report having broad networks. Only 60.9% of the arts and humanities deans and 69.3% of the math and science deans reported have a broad network of colleagues. Almost half believed they had a small network with a few close colleagues (49.4% of the arts and humanities and 44.2% of the math and science). Approximately 75% of the arts and humanities deans

and 77% of the math and science deans believed their networks were helpful in their career success.

Similar to mentoring, student affairs chiefs reported the broadest networks relative to the other chief officers. Approximately 83% reported having a broad network of professional colleagues. Almost all (87.2%) believed their networks aided in their career success. A large percentage of chief research officers (79.7%) and development officers (75.7%) stated having broad networks of colleagues. Many of the Research (83.1%) and development chiefs (86.7%) also believed these networks were helpful in their career success.

Chief academic officers were the least likely to report having broad professional networks. Just over two thirds (67.9%) indicated they had a broad network, and approximately 74% believed these networks were helpful in their career success. Chief academic officers appeared to rely more heavily on smaller networks and collegial relationships than other chiefs. Of all the chiefs, chief Academics were among the most likely to characterize their network as small with a few close colleagues. They also were the most likely to phone a colleague for advice (98.8%) and have a colleague who told them about job openings (98.1%). Almost all chief Academics (96.3%) reported they had a colleague they could rely on for advice.

Cultural capital

This study operationally defined cultural capital using measures of cultural preferences, selectivity of institutions where respondents earned their degrees and

worked, the perceived impact of the reputation of these institutions on their careers, awards earned and scholarly activities. Based on these operational definitions, the participants in this study reported relatively high levels of cultural capital.

In terms of cultural preferences, most respondents indicated they enjoy a broad range of cultural activities (see Table 15). Almost all respondents stated they enjoyed going to museums and art exhibits (88.9%), attending lectures (94.2%), going to the theater (92.9%) and reading books for pleasure (93.8%).

Table 15

Cultural capital accumulated by senior administrators examined by race and gender

		Race/Eth	nicity		Ger	nder	
		African		Other			
	White	Am.	Latino/a	Min.	Male	Female	Total
	%	%	%	%	%	%	%
Preferences (strongly agree or							
agree)							
Enjoy museums/art exhibits	89.4	82.0	97.4	80.6	86.8	93.5	88.9
Enjoy lectures	94.0	96.1	97.5	90.0	92.9	97.1	94.2
Enjoy symphony	82.9	75.0	80.0	75.0	80.1	86.6	82.0
Enjoy theater	93.4	92.2	92.3	75.0	90.9	97.5	92.9
Enjoy reading books	94.0	90.6	95.0	96.8	91.9	98.1	93.8
Institutional Reputation (strongly agree or agree)							
Reputation of institution of high							
degree asset	76.9	81.9	77.5	75.0	78.2	75.3	77.3
Reputation of institution of UG							
degree asset	61.1	66.1	65.0	50.0	61.2	62.0	61.4
Rep. of institituion where	60.0	70.1	70.5	(5 ((0.4	CO 5	60.0
currently work asset	68. 9	72.1	72.5	65.6	69.4	68.5	69.2
Institutional Selectivity (very selective)							
Selectivity-UG institution	19.7	14.7	12.5	25.0	18.4	20.9	19.2
Selectivity-Grad. institution	33.1	35.4	41.0	48.4	34.3	32.6	33.8
Awards (earned 1 or more)							
Undergraduate honor society	68.3	73.8	57.5	53.1	66.8	71.4	68.2
National society of distinguished							
scholars	21.0	29.2	27.5	25.0	20.3	25.7	21.9
Research Award	30.5	23.1	32.5	18.8	30.3	28.6	29.8
Honorary degree	1.8	3.8	2.5	3.1	1.8	2.4	2,0
Research fellowship	20.9	24.6	35.0	34.4	24.2	16.5	21.9
Scholarly Activities (published 1 or more)							
Journal articles	79.5	78.5	85.0	78.1	79.6	79.2	79.5
Book chapters	51.5	47.7	65.0	56.3	52.0	50.6	51.6
Books	49.5	42.3	60.0	46.9	49.9	47.3	49.1

Some substantial differences between racial/ethnic groups were seen in parents' education. Almost 60% of African Americans and 60% of Latinos/as parents did not attend college. Nearly one third of the parents from both racial groups did not hold a high school diploma. The parents of White respondents were much more likely than Latinos/as and African Americans to complete high school, earn a bachelor's degree and earn an advanced graduate or professional degree. More than half of the parents of White respondents attended college. Approximately 15% earned an advanced graduate or professional degree, 15% earned a bachelor's degree, and 18% attended some college.

Most believed the reputation of the institution where they earned their highest degree (77.3%), where they earned their undergraduate degree (61.4%) and where they currently work (69.2%) were assets when applying for jobs in higher education. Few respondents indicated they earned their highest degree (33.8%) and undergraduate degree from institutions that were very selective (19.2%).

Many of the senior administrators earned cultural capital in the form of awards or honors. More than two thirds (68.2%) of the respondents were members of an honor society as undergraduates. Approximately 22% were members of national societies of distinguished scholars (e.g., National Academy of Sciences, American Academy of arts and Sciences, etc.). Approximately 30% won an award for research, and 22% received a research fellowship.

Most senior administrators were active scholars at some time in their career. More than three quarters (79.5%) of the respondents indicated they had published at least one scholarly journal article in their career. Just over half (51.6%) published at least one book chapter, and just under half (49.1%) authored at least one book.

Race and Gender

Some differences were observed when the measures by racial/ethnic group were explored. Other minorities (80.6%) and African Americans (82%) were the least likely to enjoy going to museums and art exhibits. Approximately 97% of the Latinos/as and 89% of the Whites reported enjoying museums and art exhibits. Three fourths of other minorities and African Americans indicated that they enjoy attending the symphony, while 80% of the Latinos/as and 83% of the Whites stated that they enjoy the symphony. African Americans were only slightly less likely than the other groups to indicate they enjoy reading books for pleasure. Other minorities were the least likely to enjoy attending the theater.

African Americans were most likely to report that the institutions where they earned their degrees have been an asset when applying for jobs in higher education.

Approximately 82% of the African Americans indicated the reputation of the institution where they earned their highest degree has been an asset, compared to 75% of other minorities, 77% of Whites and 78% of Latinos/as. African Americans (66.1%) were also more likely than Whites (61.1%) and other minorities (50.0%) to believe the

reputation of the institution where they earned their undergraduate degree had been an asset.

However, African Americans and Latinos/as were less likely than Whites to attend a very selective institution as an undergraduate. Only 12.5% of Latinos/as and 14.7% of African Americans attended very selective institutions compared to 19.7% of the Whites. However, African Americans and Latinos/as were slightly more likely than Whites to attend a very selective graduate school (35.4% and 41.0% compared to 33.1%).

Awards varied greatly by racial/ethnic group. African Americans were the most likely to be members of an undergraduate honor society (73.8% compared to 68.3% for Whites and 57.5% for Latino/as). They also were the most likely to be members of a national society of distinguished scholars (29.2% compared to 21.0% for Whites and 27.5% for Latinos/as). Latinos/as were the most likely to earn a research award or a research fellowship.

Latinos/as were the most active scholars as measured by publications. Latinos/as were the most likely to publish articles (85.0%), book chapters (65.0%) and books (60.0%). African Americans were the least likely to publish journal articles (78.5%), book chapters (47.7%) and books (42.3%)

Only a few gender differences were observed among the measures of cultural capital. Women were more likely than men to enjoy visiting museums and art exhibits (93.5% compared to 86.8%), attending lectures (97.1% compared to 92.9%), attending

the symphony (86.6% compared to 80.1%), going to the theater (97.5% compared to 90.9%) and reading books for pleasure (98.1% compared to 91.9%).

Current Position

When comparing deans and chief officers on accumulated cultural capital, several differences were evident (see Table 16), primarily related to cultural capital derived from academic-related activities. Deans (41.2%) were more likely than chief officers (33.8%) to attend a very selective graduate institution. Deans also were considerably more likely than chiefs to win awards. A higher percentage of deans were members of undergraduate honor societies (79.0% compared to 62.3%) and members of national societies of distinguished scholars (30.0% compared to 16.0%).

Deans were more likely than chiefs to have received research awards (40.5% compared to 22.2%) and research fellowships (31.1% compared to 15.6%). Deans also were considerably more likely than chiefs to have published journal articles, book chapters and books.

Accumulated cultural capital of senior administrators examined by current position

			Dean	Ę					Chief Officer	cer				
	Math,	Ать, Нитап.			Alllied									
	Science,	Social &			Health			Business Develop-	Develop-	Student	Research			Overall
	Ag. & Engr.	Behavioral	Business	Business Education	& Nursing	Total	Academic & Admin.	& Admin.	ment	Affairs	& Grad.	Total	Other	Total
Preferences														
Enjoy museums/art exhibits	78.9	92.6	90.0	92.1	88.5	90.3	93.8	81.3	85.5	85.2	93.8	87.5	95.3	88.9
Enjoy lectures	92.8	97.0	89.5	6.96	95.0	94.9	9.86	9.78	92.1	93.1	9.96	93.5	8.76	94.2
Enjoy symphony	75.2	93.6	77.1	83.3	81.5	84.5	85.3	73.9	82.6	79.5	82.2	80.5	78.3	82.0
Enjoy theater	84.2	97.4	91.7	95.4	96.3	93.8	95.4	6.06	90.3	91.4	92.4	92.2	95.6	92.9
Enjoy reading books	90.4	97.9	8.96	6.96	96.3	0.96	95.0	87.1	90.9	94.1	94.0	92.2	93.3	93.8
Institutional Reputation														
Rep. of institution of high degree asset	80.5	76.9	7.77	82.3	82.9	79.5	78.7	70.1	70.9	78.0	79.3	75.4	84.4	77.3
Rep. of institution of UG degree asset	62.3	59.1	47.9	62.0	65.0	59.3	56.9	9.79	68.1	64.2	57.3	63.0	60.5	61.4
Rep. of institution where currently work														
asset	64.9	58.5	58.3	77.9	72.0	65.1	65.0	9.08	74.8	74.3	62.1	72.0	9.69	69.2
Institutional Selectivity (very selective)														
Selectivity-UG institution	27.4	20.2	24.7	13.1	28.0	21.7	18.3	14.8	18.6	14.3	22.9	17.2	23.9	19.2
Selectivity-Grad institution	41.6	40.3	40.2	37.7	50.0	41.2	37.2	14.9	24.3	25.9	41.2	27.9	41.3	33.8
Note. *Responded "occasionally" or 'Table 16 continues	r "frequently"	ntly"												

Table 16 Continued

			Dean		1)	Chief Officer					
	Math,	Arts, Human.			Alllied									
	Science,	Social &			Health			Business	Develop-	Student	Student Research		Ŭ	Overall
	Ag. & Engr.	Behavioral	Business	Education	& Nursing	Total	Academic	& Admin.	ment	Affairs	& Grad.	Total	Other	Total
Awards (earned 1 or more)														
Undergraduate honor society	75.4	75.0	78.4	73.3	82.9	76.2	79.0	39.8	52.4	9.89	71.4	62.3	71.7	68.2
National society of distinguished														
scholars	21.9	25.4	26.8	37.4	46.3	30.0	19.6	9.9	13.8	15.9	28.6	16.0	23.9	21.9
Research Award	43.0	40.3	35.1	36.6	50.0	40.5	32.9	7.1	15.9	18.2	44.5	22.2	26.1	29.8
Honorary degree	0.0	1.7	0.0	4.6	3.7	2.1	1.8	0.0	3.4	1.4	4.2	1.9	2.2	2.0
Research fellowship	37.7	39.0	26.8	22.1	18.3	31.1	29.7	1.4	6.9	5.9	43.7	15.6	13.0	21.9
Scholarly Activities (published 1														
or more)														
Journal articles	94.7	93.2	95.9	94.7	98.8	94.8	7.76	34.6	47.6	69.5	9.96	68.3	82.6	79.5
Book chapters	60.5	69.1	64.9	71.8	75.6	68.3	65.8	15.2	18.6	33.2	73.1	39.7	47.8	51.6
Books	53.5	67.4	57.7	69.5	68.3	64.1	61.2	16.1	24.1	32.3	66.4	38.6	43.5	49.1
Note *Resnanded "occasionally" or "frequently"	11v" or "f	Politently?												

Note. *Responded "occasionally" or "frequently"

Looking within the position of dean, deans of arts, humanities and social sciences were the most likely to have enjoyed cultural activities. Nearly every one of these deans enjoyed museums (95.6%), lectures (97.0%), the symphony (93.6%), the theater (97.4%) and reading books for pleasure (97.9%). In comparison, deans of math and science were the least likely to find enjoyment in cultural activities. Just over three quarters of the deans of math and science indicated they enjoyed museums (78.9%) and the symphony (75.2%). They also were the least likely of all the deans to enjoy attending the theater (84.2%).

Deans of allied health and nursing were the most likely to attend highly selective undergraduate (28.0%) and graduate institutions (50.0%). They were also most likely to perceive the reputation of the institutions where they earned their undergraduate (65.0%) and graduate degrees (82.9%) as an asset when applying for positions in higher education. In contrast, deans of education were the least likely to attend highly selective undergraduate (13.1%) and graduate (37.7%) institutions. Yet most of the deans of education believed the reputation of the institution where they earned their undergraduate (62.0%) and graduate degrees (82.3%) had been an asset.

Deans of allied health also were the most likely of all deans to earn awards and honors. Approximately, 83% were members of an undergraduate honor society, 46% were members of a national society of distinguished scholars, and 50% were recipients of a research award. However, they were the least likely to receive a research fellowship (18.3%).

Among chief officers, academic chiefs were the most likely to enjoy cultural activities. Nearly every chief officer enjoyed museums (93.8%), lectures (98.6%), symphonies (85.3%), plays (95.4%) and reading books for pleasure (95.0%). In comparison, business and administrative chiefs were the least likely to enjoy these activities. Approximately 81% enjoyed museums, 88% enjoyed lectures, 74% enjoyed symphonies, 91% enjoyed the theater, and 87% enjoyed reading books.

Taking a closer look at chief officers' accumulation of cultural capital through academic-related activities suggested that the differences between deans and chief officers were somewhat misleading. The data on chief officers indicated that those who were less likely to follow academic paths to the position of chief, business and administrative chiefs, student affairs chiefs and development chiefs were among the least likely of all senior administrators to attend the most selective graduate and undergraduate institutions, belong to an undergraduate honor society, earn research awards, and receive administrative fellowships. Relatively few of these non-academic chiefs publish articles, book chapters or books. In fact, chief academic officers and chief research officers looked more like deans in terms of accumulation of cultural capital than the other chief officers.

Discrimination

Experiences with discrimination were quite prevalent for women and people of color (see Table 17). Almost 60% of African Americans believed they had been discriminated in their career based on race. Slightly fewer Latinos/as (46.2%) and other

people of color (40.6%) reported having experienced racial discrimination in their career. Just under 9% of the Whites indicated they had been discriminated against based on their race. Approximately 78% of the African Americans, 55% of the Latinos/as and 66% of the other people of color indicated they had frequently or occasionally experienced racial discrimination in the past two years. In comparison, 6.3% of the Whites indicated they had experienced frequent or occasional racial discrimination in the past two years. A large percentage of the people of color reported that their career advancement had been limited by their race. Almost half (49.6%) of the African Americans and one-third of the Latinos/as (30.0%) believed their career advancement was negatively impacted by their race.

Senior administrators experiences with discrimination

Table 17

		Race/Ethnicity	thnicity		Gender	der	
		African		Other			
	White.	White American Latino/a Minority Male Female Total	Latino/a N	Ainority	Male F	emale	Total
	%	%	%	%	%	%	%
Responded "Agree" or "Strongly Agree"							
to the following:							
Racial Discrimination							
Been discriminated against in career based on race	8.4	59.4	46.2	40.6	13.6	14.8	14.0
Advancement limited by race	6.3	49.6	30.0	43.8	11.0	11.3	11.3 11.1
Experienced racial discrimination*	9.8	78.1	55.0	65.6	17.4	17.8	17.5
Gender Discrimination							
Been discriminated against in career based on gender	19.4	28.6	22.5	31.3		43.9	20.4
Career advancement limited by gender	18.4	14.8	20.5	31.3	8.5	41.4	41.4 18.4
Experienced gender discrimination*	31.0	46.0	30.0	37.5	16.4	68.7	32.3
Note.*Responded "occasionally or "frequently"							

Women also report relatively high levels of gender discrimination.

Approximately 44% of the women believed they had been discriminated in their career based on gender. For many, the gender discrimination occurred in the past two years.

More than two thirds (68.7%) of the women studied reported they had been discriminated against occasionally or frequently in the past two years. More than 40% of the women perceived that their career advancement was limited by their gender.

Aspirations

Respondents were asked a series of attitudinal questions to assess their desire to become a college president, their beliefs about their qualifications and their views of the role of college presidents (see Table 18). The majority of senior administrators in this study indicated that they do not want to be a college president. More than 40% said that they plan to leave their current position in the next two years, but only 15.5% said their next job was likely to be a college presidency. Less than one third said that one day they would like to be a college president, and just over one half said that they never want to be a college president.

While most did not want to be a president, many felt that they were qualified to do the job. Nearly two thirds of the sample indicated that they believed they were qualified to be a president and that they had the necessary experiences to be a president.

Approximately half stated that they had the necessary "connections" to be a president.

Presidential aspirations of senior administrators examined by race and gender Table 18

Multic American Latino/a Minority Male Fernale Total			Race/F	Race/Ethnicity		Ger	Gender	
White American Latino/a Minority have Applied for a presidency 9.8 11.5 10.0 0.0 Nominated for a presidency 21.4 35.4 40.0 0.0 Nominated for a presidency 7.8 16.2 10.0 0.0 ninterview for a presidency 6.3 8.5 5.0 0.0 Offered a presidency 1.8 0.8 2.5 0.0 down offer for a presidency 1.8 0.8 2.5 0.0 down offer for a presidency 1.8 0.8 2.5 0.0 ely to be Similar Administrative 20.1 35.4 30.0 25.0 Higher Administrative 0.9 0.0 0.0 0.0 0.0 College Presidency 14.0 20.0 15.0 28.1 Faculty 9.0 6.9 10.0 9.4 Retirement 30.2 25.5 25.0 Other 3.8 5.4 2.5 0.0 Other 3.8			African		Other			
have Applied for a presidency 9.8 11.5 10.0 0.0 11.5 Nominated for a presidency 21.4 35.4 40.0 0.0 23.1 n interview for a presidency 7.8 16.2 10.0 0.0 8.8 n therviewed for a presidency 1.8 8.5 5.0 0.0 7.5 down offered a presidency 1.8 0.8 2.5 0.0 2.2 down offer for a presidency 1.8 0.8 2.5 0.0 2.2 down offer for a presidency 1.8 0.0 0.0 2.5 18.9 Higher Administrative 20.1 35.4 30.0 25.0 18.9 Lower Administrative 0.9 0.0 0.0 0.0 0.0 0.0 College Presidency 14.0 20.0 15.0 28.1 16.2 Faculty 9.0 6.9 10.0 9.4 10.0 Retirement 30.2 18.5 22.5 25.0 29.5 Other 3.8 5.4 2.5 0.0 2.9		White	American	Latino/a	Minority		Female	Total
Applied for a presidency 9.8 11.5 10.0 0.0 11.5 Nominated for a presidency 21.4 35.4 40.0 0.0 23.1 In interview for a presidency 7.8 16.2 10.0 0.0 8.8 Interviewed for a presidency 1.8 8.5 5.0 0.0 7.5 Offered a presidency 1.8 0.8 2.5 0.0 2.2 down offer for a presidency 1.8 0.8 2.5 0.0 2.3 down offer for a presidency 1.8 2.0 12.5 21.7 Higher Administrative 20.1 35.4 30.0 25.0 18.9 Lower Administrative 0.9 0.0 0.0 0.0 0.8 College Presidency 14.0 20.0 15.0 28.1 16.2 Faculty 9.0 6.9 10.0 9.4 10.0 Retirement 30.2 18.5 22.5 25.0 29.5 Other 3.8 5.4 2.5 0.0 2.9 Other 3.8 5.4						1		
Nominated for a presidency 21.4 35.4 40.0 0.0 23.1 n interview for a presidency 7.8 16.2 10.0 0.0 8.8 nterviewed for a presidency 6.3 8.5 5.0 0.0 7.5 Offered a presidency 1.8 0.8 2.5 0.0 2.2 down offer for a presidency 1.8 0.8 2.5 0.0 2.3 ely to be Similar Administrative 22.0 13.8 20.0 12.5 21.7 Higher Administrative 0.9 0.0 0.0 0.0 0.8 College Presidency 14.0 20.0 15.0 28.1 16.2 Faculty 9.0 6.9 10.0 9.4 10.0 Retirement 30.2 18.5 22.5 25.0 29.5 Other 3.8 5.4 2.5 0.0 2.9 10.0 100.0 100.0 100.0 1	Applied for a presidency	8.6	11.5				6.7	10.1
n interview for a presidency 7.8 16.2 10.0 0.0 8.8 nterviewed for a presidency 6.3 8.5 5.0 0.0 7.5 Offered a presidency 1.8 0.8 2.5 0.0 2.2 down offer for a presidency 1.8 0.8 2.5 0.0 2.3 ely to be Similar Administrative 20.1 35.4 30.0 25.0 18.9 Lower Administrative 0.9 0.0 0.0 0.0 0.8 College Presidency 14.0 20.0 15.0 28.1 16.2 Faculty 9.0 6.9 10.0 9.4 10.0 Retirement 30.2 18.5 22.5 25.0 29.5 Other 3.8 5.4 2.5 0.0 2.9 TOTAL 100.0 100.0 100.0 100.0 100.0	Nominated for a presidency	21.4	35.4				22.7	23.0
ely to be 6.3 8.5 5.0 0.0 7.5 Offered a presidency 1.8 0.8 2.5 0.0 2.2 down offer for a presidency 1.8 0.8 2.5 0.0 2.2 ely to be 1.8 0.8 2.5 0.0 2.3 Similar Administrative 22.0 13.8 20.0 12.5 21.7 Higher Administrative 20.1 35.4 30.0 25.0 18.9 Lower Administrative 0.9 0.0 0.0 0.8 0.8 College Presidency 14.0 20.0 15.0 28.1 16.2 Faculty 9.0 6.9 10.0 9.4 10.0 Retirement 30.2 18.5 22.5 25.0 29.5 Other 3.8 5.4 2.5 0.0 2.9	Turned down interview for a presidency	7.8	16.2				7.8	8.5
Offered a presidency 1.8 0.8 2.5 0.0 2.2 down offer for a presidency 1.8 0.8 2.5 0.0 2.3 ely to be Similar Administrative 22.0 13.8 20.0 12.5 21.7 Higher Administrative 0.9 0.0 0.0 0.0 0.8 College Presidency 14.0 20.0 15.0 28.1 16.2 Faculty 9.0 6.9 10.0 9.4 10.0 Retirement 30.2 18.5 22.5 25.0 29.5 Other 3.8 5.4 2.5 0.0 2.9 TOTAL 100.0 100.0 100.0 100.0 1	Interviewed for a presidency	6.3	8.5				4.3	6.5
ely to be 1.8 0.8 2.5 0.0 2.3 ely to be Similar Administrative 22.0 13.8 20.0 12.5 21.7 Higher Administrative 20.1 35.4 30.0 25.0 18.9 Lower Administrative 0.9 0.0 0.0 0.0 0.8 College Presidency 14.0 20.0 15.0 28.1 16.2 Faculty 9.0 6.9 10.0 9.4 10.0 Retirement 30.2 18.5 22.5 25.0 29.5 Other 3.8 5.4 2.5 0.0 2.9 TOTAL 100.0 100.0 100.0 100.0 100.0	Offered a presidency	1.8	0.8				9.0	1.7
ely to be Similar Administrative 22.0 13.8 20.0 12.5 21.7 Higher Administrative 20.1 35.4 30.0 25.0 18.9 Lower Administrative 0.9 0.0 0.0 0.0 0.8 College Presidency 14.0 20.0 15.0 28.1 16.2 Faculty 9.0 6.9 10.0 9.4 10.0 Retirement 30.2 18.5 22.5 25.0 29.5 Other 3.8 5.4 2.5 0.0 2.9 TOTAL 100.0 100.0 100.0 100.0 100.0 100.0		1.8	0.8				9.0	1.8
ely to be Similar Administrative 22.0 13.8 20.0 12.5 21.7 Higher Administrative 20.1 35.4 30.0 25.0 18.9 Lower Administrative 0.9 0.0 0.0 0.0 0.8 College Presidency 14.0 20.0 15.0 28.1 16.2 Faculty 9.0 6.9 10.0 9.4 10.0 Retirement 30.2 18.5 22.5 25.0 29.5 Other 3.8 5.4 2.5 0.0 2.9 TOTAL 100.0 100.0 100.0 100.0 100.0 100.0								
22.0 13.8 20.0 12.5 21.7 20.1 35.4 30.0 25.0 18.9 0.9 0.0 0.0 0.0 0.8 14.0 20.0 15.0 28.1 16.2 9.0 6.9 10.0 9.4 10.0 30.2 18.5 22.5 25.0 29.5 3.8 5.4 2.5 0.0 2.9 100.0 100.0 100.0 100.0 100.0 100.0	Next position is likely to be							
20.1 35.4 30.0 25.0 18.9 0.9 0.0 0.0 0.8 14.0 20.0 15.0 28.1 16.2 9.0 6.9 10.0 9.4 10.0 30.2 18.5 22.5 25.0 29.5 3.8 5.4 2.5 0.0 2.9 100.0 100.0 100.0 100.0 100.0 1	Similar Administrative	22.0	13.8			21.7	19.8	21.1
0.9 0.0 0.0 0.8 14.0 20.0 15.0 28.1 16.2 9.0 6.9 10.0 9.4 10.0 30.2 18.5 22.5 25.0 29.5 3.8 5.4 2.5 0.0 2.9 100.0 100.0 100.0 100.0 100.0 1	Higher Administrative	20.1	35.4			18.9	28.0	21.7
14.0 20.0 15.0 28.1 16.2 9.0 6.9 10.0 9.4 10.0 30.2 18.5 22.5 25.0 29.5 3.8 5.4 2.5 0.0 2.9 100.0 100.0 100.0 100.0 100.0 1	Lower Administrative	6.0	0.0			0.8	0.8	8.0
9.0 6.9 10.0 9.4 10.0 30.2 18.5 22.5 25.0 29.5 3.8 5.4 2.5 0.0 2.9 100.0 100.0 100.0 100.0 100.0 1	College Presidency	14.0	20.0			16.2	11.3	14.7
30.2 18.5 22.5 25.0 29.5 3.8 5.4 2.5 0.0 2.9 100.0 100.0 100.0 100.0 100.0 1	Faculty	0.6	6.9			10.0	6.4	8.9
3.8 5.4 2.5 0.0 2.9 100.0 100.0 100.0 100.0 100.0 1	Retirement	30.2	18.5			29.5	27.8	29.0
100.0 100.0 100.0 100.0 100.0 1	Other	3.8	5.4			2.9	5.8	3.8
	TOTAL	100.0	100.0	, ,	, ,	100.0	100.0	100.0

Table 18 continues

Table 18 Continued

		Race/E	Race/Ethnicity		Gender	ıder	
	 	African		Other			
	White	American Latino/a Minority	Latino/a N	Ainority	Male Female Total	Female	Total
Strongly agree or agree with the following							
Presidential Aspirations							
One day, would like to be a college president	28.3	46.5	45.0	40.6	31.6	27.8	30.5
Never want to be a president	52.3	35.7	40.0	50.0	48.9	54.8	50.7
Next position likely to be a presidency	14.3	24.4	20.0	25.0	16.9	12.2	
Told would be good president*	73.2	85.0	85.0	81.3	74.6	74.5	74.6
Beliefs about qualifications							
Qualified to be president	63.6	71.9	72.5	7.97	68.4	56.4	64.8
Have necessary connections to be a president	48.7	62.5	52.5	34.4	52.0	44.2	49.6
Had necessary experiences to be president	62.2	8.69	62.5	67.7	9.79	52.1	62.9
Perceived role of president							
Enjoy the fund-raising role of president	50.9	52.9	56.4	45.2	51.2	50.8	
Busy schedule of presidency unattractive	47.4	43.2	42.5	58.1	46.9	47.6	47.1
Time with politicians is unattractive	32.7	32.0	37.5	40.6	31.4	36.4	
Presidents have power to make contributions	97.2	98.4	85.0	6.96	97.1	6.96	97.0
Presidents have little influence over education	24.2	20.3	17.5	40.6	25.0	21.9	
Presidents must have connections	93.0	92.1	95.0	6.96	92.2	94.9	93.0

This general lack of desire to serve as a president did not appear to be related to the belief that the president has little power. In fact, almost all (97.0%) believed that presidents have the power to make significant contributions to campus life. Similarly, only 24% agreed with the statement, "Most college presidents have too little influence over their institution's educational program."

The data suggested that several components of the presidential job were unattractive to senior administrators. Almost half (47.1%) indicated that the busy schedule of the presidency makes the job unattractive. Approximately one third stated that the need to spend time with politicians made the college presidency unattractive. Nearly half of the respondents did not believe they would enjoy the fund-raising activities required of presidents.

In addition to attitudinal items, respondents were asked to indicate what they believe their next job would be. The most common response was retirement, followed by a higher administrative position (excluding a college presidency) and an administrative position similar to the one they currently held. Only 14.7% stated that their next position was likely to be a college presidency.

Respondents' application behaviors also supported the idea that most do not want to be a college president. Only 10.1% of the sample stated that they had applied for at least one presidency in the past two years. However, almost one fourth of the sample had been nominated for a presidency in the past two years.

Aspirations and Race

Examining presidential aspirations by racial group revealed some interesting differences. In general, people of color had a greater desire to become a college president than Whites. Only 28.3% of Whites stated that one day they would like to become a college president, compared to 46.5% of African Americans and 45.0% of Latinos/as. Just over half of the White respondents indicated that they never wanted to be a college president, while a little more than one third of African Americans said they never wanted the position. Similarly, almost all (85%) African American and Latino/a respondents stated they had been told that they would make a good president compared to only 73.2% of the White respondents.

Administrators of color also were most likely to state that they believed they were qualified to be a college president. Approximately 72% of African Americans and 73% of Latinos/as agreed with the statement, "I am qualified to be a college president." Only 64% of Whites agreed with the statement. African Americans were also the most likely to believe they had the career experiences necessary to be a president.

When asked what their next position was likely to be, people of color were most likely to select a job at a higher administrative level than their current position. Only 20.1% of Whites said their next job was likely to be a higher administrative position, compared to 35.4% of the African Americans and 30.4% of the Latinos/as. African Americans (20.0%) were most likely and Whites were least likely (14.0%) to indicate that their next job was going to be a college presidency.

Applications and nominations for presidencies followed similar patterns across racial groups. Only slight differences were seen in the number of people within a racial group who had applied for a presidency, but African Americans (11.5%) were most likely to have applied, and Whites (9.8%) were least likely to have applied. More dramatic differences were observed with nominations. Only 21.4% of Whites were nominated for a presidency in the last two years, while 40.0% of Latinos/as and 35.4% of African Americans were nominated.

Based on the descriptive statistics, it would appear that these racial differences in aspirations had little to do with the perceived power of the presidency or the roles of the president. Only slight differences were seen in their beliefs about a president's power to make contributions to a campus and ability to influence educational programs. Latinos/as and other minorities were slightly less likely to believe presidents had such power. Whites were only slightly more likely than African Americans and Latinos/as to find the busy schedule of the presidency unattractive. Very little, if any, differences were seen across racial group in the attractiveness of spending time with politicians and the fund-raising role of the president.

Aspirations and Gender

Women senior administrators appeared much less likely than their male counterparts to aspire to become a college president. Slightly fewer women (27.8%) than men (31.6%) agreed with the statement, "One day I would like to be a college president." Women (54.8%) also were more likely than men (48.9%) to say they never

wanted to be a college president, and women (12.2%) were less likely than men (16.9%) to indicate their next position is likely to be a presidency.

Women also were much less likely than men to believe they were qualified to be a college president. Approximately 56% of the women and a little more than 68% of the men believed they were qualified to be a president. Just over half of the women (52.1%) indicated they had the necessary experiences to be a president compared to more than two thirds of the men (68.4%). Women (44.2%) also were less likely than men (52.0%) to believe they had the necessary connections to be a college president.

Some of these differences might be exaggerated by the current positions held by women. This exaggeration was evident when participants were asked their next likely position. More than one fourth of the women (28.0%) indicated their next position is likely to be a higher administrative post (excluding the presidency), compared to only 18.9% of the men. However, slightly more men (16.2%) than women (11.3%) stated their next position is likely to be a college presidency.

These gender differences were confirmed in the presidential application behaviors of participants. Men were almost two times as likely to apply for a presidency than women. Men were also more likely than women to interview for a presidency, to receive an offer to be a president, and to turn down an offer for a presidency. Women were as likely as men to be nominated for a presidency.

As with racial group differences, almost none of these gender differences appear to be related to the perceived power of the college president or the different roles of the

president. Men and women had similar beliefs about the president's power to make contributions to a campus and to influence educational programs. Women were just as likely as men to enjoy the fund-raising role of the president and to view the busy schedule of the presidency as unattractive. Women were only 5% more likely than men to find the time spent with politicians as unattractive.

Aspirations and Current Position

When deans were compared with chief officers, their long-term aspirations to be a college president were quite similar (see Table 19). Nearly identical percentages responded to questions such as "One day I would like to be a college president" and "I never want to be a college president." Deans (69.4%) were slightly more likely than chiefs (62.3%) to believe they were qualified to be a president.

When asked what their next position is likely to be, almost 20% of the chiefs indicated a college presidency, compared to 9% of the deans. Chiefs (27.0%) were also more than twice as likely as deans (13.0%) to indicate a similar administrative position. One third of the deans indicated they were likely to take a higher administrative position (other than a college presidency), while only 12.7% of chiefs wanted a higher administrative post. Deans (13.9%) were more than twice as likely as chiefs (5.5%) to want to return to the faculty.

Several differences were observed when examining presidential application behavior by current position. Chief officers (12.6%) were almost twice as likely as

deans (6.7%) to have applied for a presidency. Chiefs were also more likely to be nominated and to be interviewed for a presidency.

A closer examination of deans suggested differences in aspirations between disciplines. Business deans were the most likely to have presidential aspirations.

Approximately 37% of the business deans indicated that one day they would like to be a college president and only 38% stated that they never want to be a college president. In comparison, only 23.9% of the math and science deans and 26.2% of the education deans indicated they would one day like to be a college president. More than half of the deans of education (53.1%), deans of allied health (56.3%) and deans of math and science (51.8%) believed they never wanted to be a college president.

Aspirations of senior administrators examined by current position

Table 19

			Dean					 	Chief Officer	icer				
•	Math, Sci	Arts, Hum.			Allied									
	Ag. &	Soc. &			Health	Dean	Ī	Business	Devel-	Student Res. &	Res. &	8	J	Overall
	Engr.	Beh.	Business	Education	& Nursing	Total	Academic & Admin. opment	k Admin.	opment	Affairs	Grad.	Total	Other	Total
In the past 2 years have														
Applied for a presidency	, 12.3	7.2	5.2	3.1	4.9	6.7	32.4	9.9	0.6	5.5	4.2	12.6	8.7	10.1
Nominated for a presidency	, 13.2	20.3	21.6	0.91	14.6	17.7	60.7	10.9	16.6	20.5	20.2	27.2	13.0	23.0
Turned down interview for a presidency	5.3	8.9	5.2	6.9	6.1	7.0	21.0	4.3	7.6	7.3	6.7	9.8	2.2	8.5
Interviewed for a presidency	, 6.1	2.5	5.2	2.3	2.4	3.5	25.6	2.8	7.6	3.6	0.8	9.0	2.2	6.5
Offered a presidency	0.0	0.8	3.1	2.3	0.0	1.2	5.5	1.4	2.8	0.0	0.8	2.2	0.0	1.7
Turned down offer for a presidency	0.0	1.3	3.1	1.5	0.0	1.2	5.0	1.9	2.8	0.5	0.8	2.3	0.0	1.8
Next position is likely to be														
Similar Administrative	7.1	14.1	19.6	15.4	6.2	13.0	15.6	34.8	38.5	31.2	12.7	27.0	19.6	21.1
Higher Administrative	32.1	37.6	20.6	33.8	35.8	33.2	2.8	9.6	16.8	11.5	35.6	12.7	34.8	21.7
Lower Administrative	0.0	0.0	1.0	0.8	1.2	9.0	6.0	0.5	0.7	1.8	0.0	6.0	2.2	8.0
College Presidency	8.9	7.7	15.5	5.4	11.1	9.0	41.7	9.8	16.1	16.1	8.9	19.3	6.5	14.7
Faculty	11.6	15.0	16.5	16.9	6.2	13.9	8.7	3.3	2.8	2.8	11.9	5.5	4.3	8.9
Retirement	35.7	20.5	22.7	25.4	34.6	26.1	28.0	40.0	21.7	32.1	28.8	30.9	32.6	29.0
Other	3.6	5.1	4.1	2.3	4.9	4.1	2.3	4.3	3.5	4.6	4.2	3.7	0.0	3.8
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Note.*Responded "occasionally or "frequently"	ly or "free	quently"												
Table 19 continues														

Table 19 Continued

			Dean				Chic	Chief Officer	cer			
	Math, Sci	Arts, Hum.			Allied							
	Ag. &	Soc. &			Health Dean	I	Business	Devel- 5	Student 1	Business Devel- Student Res. & CO		Overall
	Engr.	Beh.	Business	Education	Business Education & Nursing Total	Academic & Admin. opment Affairs	Admin. c	pment /		Grad. Total	Other	Total
Strongly agree or agree with the following												
Presidential Aspirations												
One day, would like to be a college president	23.9	34.3	3 37.2	26.2	34.1 31.3	52.3	16.3	28.3	29.7	20.3 30.5	17.4	30.5
Never want to be a president	51.8	44.0	37.5	53.1	56.3 47.7	34.1	9.59	48.3	56.6	61.0 52.5	56.5	50.7
Next position likely to be a presidency	7.1	10.0	19.8	4.6	11.0 10.0	45.8	7.7	15.5	15.5	7.7 19.9	6.5	15.5
Told would be good president*	61.4	72.2	75.8	79.2	70.4 72.0	95.4	59.1	72.9	79.1	72.9 76.6	71.7	74.6
Beliefs about qualifications												
Qualified to be president	9.69	67.1	72.6	77.1	59.8 69.4	91.2	42.9	48.2	61.9	61.5 62.3	46.7	64.8
Have necessary connections to be a president	45.1	45.2	58.5	58.8	45.7 49.9	75.6	30.5	42.7	53.0	45.2 50.4	28.9	49.6
Had necessary experiences to be president	65.5	62.5	8.89	65.6	58.5 64.1	89.5	50.2	54.6	56.9	57.6 63.0	45.7	67.9
Perceived role of president												
Enjoy the fund-raising role of president	50.4	48.5	62.6	46.5	55.6 51.3	62.3	32.9	89.1	41.9	37.1 51.4	42.2	51.1
Busy schedule of presidency unattractive	53.5	46.7	37.2	44.3	45.1 45.8	38.2	51.7	38.5	56.2	54.2 47.8	52.2	47.1
Time with politicians is unattractive	33.0	28.6	22.3	37.7	25.9 30.0	34.7	31.6	21.0	44.3	39.8 34.8	37.8	32.9
Presidents have power to make contributions	21.9	21.4	22.9	34.1	19.8 24.0	27.1	23.0	21.0	24.5	20.5 23.7	31.1	24.0
Presidents have little influence over education	97.4	6.7.6	92.7	7.76	98.8 97.1	9.86	96.2	99.3	94.5	98.3 97.1	93.3	97.0
Presidents must have connections	95.6	94.0	87.5	94.6	97.6 93.9	87.6	92.4	91.0	8.96	94.1 92.3	95.6	93.0

The data suggest that these differences may be attributed to the perceived role of the presidency. Business deans were significantly more likely than other deans to enjoy the fundraising role of the presidency (62.6%). They were less likely to find the busy schedule of the presidency unattractive (52.8%) and to find the time spent with politicians unattractive (77.7%). In contrast, less than half of the deans of arts, humanities and social sciences (48.5%) and deans of education (46.5%) believed they would enjoy the fund-raising role of the president. Approximately 54% of the math and science deans, 47% of the arts, humanities, and social science deans, and 44% of the education deans believed the busy schedule of the presidency was unattractive. Deans of education (37.7%), math and science (33.0%), and arts, humanities and social science (28.6%) were also more likely than business deans to find time with politicians unattractive.

Dramatic differences in presidential aspirations were seen between chief officers. Chief academic officers were the most likely to have presidential aspirations. More than one half (52.6%) of the chief academic officers indicated that one day they would like to be a college president, and just over one third (34.1%) said they never wanted to be a college president. Far fewer chiefs of business and Administration (16.3%), development (28.3%), student affairs (29.7%), and research (20.3%) believed that one day they would like to be a college president.

MULTIVARIATE ANALYSIS

This chapter provides the results of the multivariate analysis of the survey data.

To fully examine the issue of presidential aspirations of senior administrators, four models were constructed to examine two different components of aspirations.

The first component was the expectations senior administrators had about becoming a college president. Two measures of expectancy were modeled: general expectancy and immediate expectancy. General expectancy was measured using the composite variable described in the Methods Chapter, which included measures of beliefs about qualifications and whether one day they would like to be a college president. Immediate expectancy was the respondents' beliefs that their next position was likely to be a college presidency.

The second component of aspirations was the behaviors of senior administrators related to the pursuit of a presidency. Two behavioral measures, whether a person had applied or had been nominated in the two years prior to receiving the survey, were modeled.

Parallel models were constructed to predict each of the four measures of presidential aspirations. Blocked hierarchical regression was employed to ascertain the impact that capital accumulation and discrimination had on gender and racial differences in aspirations. In the first block (column one for each of the models), demographic variables were included. The second block (column two) included measures of human, social and cultural capital. The third block (column three)

contained the discrimination variable with, and the interaction terms for, discrimination by race/ethnicity and discrimination by gender. Because of possible multicollinearity between the discrimination terms and race and gender, a final model was constructed where all non-significant discrimination interaction terms were removed. This final model represented a more parsimonious explanation of the relationships between discrimination and the dependent variables.

Expectations about Becoming a College President

General Expectancy Construct

Table 20 shows the unstandardized beta coefficients for the model predicting general expectancy construct. Because all of the continuous measures (both independent and dependent) in the model were standardized, the unstandardized coefficients shown in the table represent effect sizes.

In addition to considering statistical significance, researchers suggest that it is important to understand the substantive impact that independent variable has on the dependent variable. The calculation of effect sizes is helpful when interpreting the magnitude of the effect of independent variables in regression equations (Rosenthal & Rosnow, 1991). An effect size is the proportion of a standard deviation change in the dependent variable as a result of a one-unit change in a dependent variable. An effect size of .10 or less is considered trivial, between .10 and .30 is small, between .30 and .50 is moderate, and greater than .50 is large (Rosenthal & Rosnow, 1991).

Demographics

Several variables significantly predicted the composite variable of general expectations of being a college president. First, examining the demographics model (first column), the demographic variables alone explained very little of the variance (R-square=0.031) in presidential expectations. Race and gender were significant predictors of expectations of being a president. African Americans were significantly more likely than Whites to expect to be a college president. In comparison, women were significantly less likely to expect the position. However, women who had a partner were significantly more likely than single women to expect to be a president. The coefficient (average differences between men and women) for women was halved for those who had a partner.

Capital

When capital variables were included (column 2) the explanatory power of the model increased significantly (R-square=0.328). The coefficient for African Americans decreased by approximately 10% of a standard deviation when capital variables were entered the model (from 0.496 to 0.298). This finding suggested that the differences in expectancies between Whites and African Americans became smaller when capital was controlled for in the models.

For women, the capital variables had a somewhat different impact on their presidential aspirations. With the addition of each block of capital variables, the differences in presidential aspirations between men and women increased (b=-0.414 in

block one to b= -0.608 in block two). The increase in differences between men and women suggested a possible suppressor effect. In other words, differences in capital may have suppressed the relationship between gender and expectancies. While controlling for capital may have revealed a stronger relationship between gender and presidential expectations, further research would be required to determine if the change in the relationship was a real one or simply an anomaly in the data.

When the interaction of female and partner was entered in the first block, it had no significant relationship with presidential aspirations. After entering the block of capital variables, the interaction term became statistically significant. The coefficient increased from 0.224 to 0.299. While the coefficient for women was very large (b=-0.659), it was reduced by almost half when a woman had a partner (b=0.293). Again, it would seem that differences in capital variables had a suppressor effect, but further research is necessary to determine the reasons for this effect.

Once capital variables were controlled for in the model, age was a statistically significant predictor of general presidential expectancies, although substantively the effect of age was small. With every standard deviation increase in age, respondents were, on average, 12.5% of a standard deviation less likely to expect to be a college president. The squared term for age was not statistically significant.

Human capital also appeared to play a significant role in the formulation of expectancies. Senior administrators who held a degree categorized as "other" (e.g., B.A., B.S., M.A., etc.) were significantly less likely to want to be a college president.

They were 69% of a standard deviation less likely than Ph.D.s to expect to be college president. With every unit change (a standard deviation) in career path, respondents were 14.8% of a standard deviation more likely to expect to become a college president. All deans, chief student affairs officers and chief research officers expected a presidential post significantly less than chief academic officers.

The variables representing the accumulation of social capital also were significantly related to presidential expectancies. With every standard deviation increase in the networks, senior administrators were approximately 17% of a standard deviation more likely to have expectations of becoming a college president. Administrators who were more engaged in activities that allowed for accumulation of social capital were more likely to expect to be a college president than those who were not. For every standard deviation increase in activities in which the administrators engaged, administrators increased their expectations of becoming a president by approximately 18% of a standard deviation.

Table 20

<u>Unstandardized betas for regression model predicting expectancy composite</u>

	Demog-		Discrim-	Final
	raphics	Capital	ination	Model
Constant	0.081	0.327 *	0.388 **	0.381 **
Demographics				
African American	0.496 **	0.298 **	0.272 **	0.195 *
Latino/a	0.176	0.080	-0.007	0.017
Other minority	0.233	0.141	-0.193 +	-0.192
Female	-0.414 **	-0.608 **	-0.659 **	-0.690 **
Age	-0.028	-0.125 **	-0.117 **	-0.120 **
Age squared	-0.016	0.002	0.006	0.006
Partner	-0.044	-0.080	-0.081	-0.087
Female x Partner	0.224	0.299 *	0.293 *	0.306*
SES of Family	800.0	-0.028	-0.024	-0.025
Capital				
Human				
Ed.D.		0.022	0.013	0.015
Prof'l Degree		-0.050	-0.027	-0.053
Other Degree		-0.692 **	-0.693 **	-0.689 **
Career Path		0.148 **	0.143 **	0.145 **
Dean-Hard applied		-0.348 **	-0.332 **	-0.337 **
Dean-Hard pure		-0.382 **	-0.382 **	-0.371 **
Dean-Soft applied		-0.350 **	-0.330 **	-0.330 **
Dean-Soft pure		-0.354 **	-0.358 **	-0.349 **
Dean-Other		-0.989 **	-0.989 **	-0.975 **
Chief Business		-0.002	0.009	0.007
Chief Development		0.153	0.152	0.158
Chief Research		-0.465 **	-0.458 **	-0.454 **
Chief Student Affairs		-0.234 *	-0.254*	-0.248*
Other Chief Officer Note.+p<0.10, *p<0.05, * Table 20 continues	*p<0.01	-0.250	-0.254	-0.255

Table 20 Continued

	Demog-		Discrim-	Final
	raphics	Capital	ination	Model
<u>Social</u>				
Networks		0.165 **	0.168 **	0.168 **
Activities		0.184 **	0.170 **	0.169 **
<u>Cultural</u>				
Awards		0.098 **	0.094 **	0.093 **
Major-soft pure		0.211*	0.186*	0.190*
Major-hard applied		0.289 *	0.288*	0.277 *
Major-soft applied		0.178 +	0.148	0.153 +
Major-other		0.019	0.009	0.003
High degree sel.		0.055 *	0.052 *	0.051 *
Preferences		0.099 **	0.102 **	0.099 **
Scholar		-0.052	-0.052	-0.049
Discrimination				
Climate			0.138 **	0.107 **
Climate x female			-0.071	
Climate x Af. Am.			-0.073	
Climate x Latino/a			0.034	
Climate x Other			0.196+	0.213+
R-square	0.031	0.328	0.341	0.339
R-square change	0.031 **	* 0.297 **	0.013 **	0.002

The accumulation of cultural capital also significantly predicted presidential expectancies. The more awards earned by senior administrators, the greater their presidential expectancy. For each additional standard deviation increase in awards earned, aspirations increased 10% of a standard deviation. The greater the selectivity of the institution where respondents earned their highest degree, the more the senior

administrators expected to become a president. With every standard deviation increase in selectivity, the level of expectancy increased by 5% of a standard deviation.

Cultural preferences were significantly related to presidential expectancies. With every unit (standard deviation) increase in cultural preferences, the presidential expectancies of respondents increased 10%. The discipline of respondents' highest degree was significantly related to presidential expectancies. Administrators whose degrees were in soft pure, soft applied and hard applied disciplines had significantly higher expectancies than those whose degrees were in the hard pure disciplines.

Discrimination

When discrimination variables were added to demographic and capital variables in the model, the R-square increased significantly from 0.328 to 0.341. However, discrimination variables did little to explain racial and gender differences in the dependent variable. The difference between African Americans and Whites decreased only slightly from the capital model to the discrimination model. However, when controlling for discrimination, other people of color reported lower presidential expectancies than all other racial groups. The coefficients for other demographic variables were relatively unchanged when discrimination variables were added to the model. Women had lower presidential expectancies than men, but the differences between men and women decreased for women who had a partner. The older the participant, the less likely they were to expect to be a college president.

Only negligible changes were seen in the coefficients of the capital variables when controlling for discrimination. Senior administrators who held an "other" degree (e.g., B.A., B.S., M.A., etc.) were significantly less likely than Ph.D.s to want to be a college president. Chief academic officers continued to have the highest presidential expectations. The variables representing the accumulation of social capital also were significantly positively related to presidential expectancies. Cultural capital, represented by awards earned, institutional selectivity and preferences remained significantly related to expectancies. Administrators in the hard pure disciplines still expected a presidential position less than those from other disciplines.

Two of the discrimination variables were significantly related to general presidential expectancies. Those who experienced discrimination were more likely to expect to be a president. No significant racial/ethnic or gender differences were seen in the impact of discrimination except for other minorities. For other minorities, the greater the experiences with discrimination, the greater the expectations of being a college president. This relationship all but erased the negative relationship seen between the other minority variable and general expectancy.

The final model was the cleanest representation between the independent variables and the expectancy composite. However, the models changed only slightly when non-significant discrimination variables were removed. While African Americans continued to have higher presidential expectancies than Whites, the relationship between Whites and African Americans decreased almost 8% of a standard deviation.

This suggests that African Americans experiences with discrimination may increase their desire to become a college president. Further research should be conducted to understand the impact that experiences with discrimination have on African American administrators. The remainder of the model was relatively unchanged when non-significant discriminatory variables were removed.

Immediate Expectancy: Presidency is Likely to be Next Position

While the composite of presidential aspirations measured the broader concept of expectancy, another more immediate measure was respondents' beliefs about what their next position was likely to be. Approximately 15% of the respondents indicated that their next position was likely to be a college presidency. A logistic regression model was constructed to predict whether they believed their next position was likely to be a college presidency (yes was coded as one, no was coded as zero).

Table 21 shows the delta-p statistics for the predictors of the probability of that respondents' indicating their next position was likely to be a college presidency. To aid in the interpretation of logistic regression equations, Cabrera (1994) suggested using the delta-p statistic. The delta-p shows the percentage change in the likelihood of engaging in the activity under study (e.g., report that next position is likely to be a presidency) with every one-unit increase in the independent variable. Therefore, the delta-p statistic can provide a clearer understanding of the substantive impact of significant variables. The model suggested significant relationships between the dependent variable and demographics, capital and discrimination.

Demographics

The predictive power of the demographic variables when modeling next position in likely to be a presidency was relatively weak. With only demographic variables entered in the model, only 55% of the cases were correctly classified and the pseudo R-square was only .027.

Table 21

Delta-p statistics for logistic regression model predicting next position is likely to be a
presidency

	Demog-		Discrim-	Final
	raphics	Capital	ination	Model
Demographics				
African American	0.072 *	0.033	0.053	0.021
Latino/a	0.011	0.003	0.004	-0.007
Other minority	0.134*	0.138	0.039	0.105
Female	-0.071+	-0.090*	-0.084+	-0.085 *
Age	-0.026 **	-0.042 **	-0.042 **	-0.041 **
Age squared	-0.011+	-0.009	-0.008	-0.008
Partner	0.008	0.003	0.005	0.002
Female x Partner	0.053	0.069	0.061	0.065
SES of Family	-0.008	-0.014	-0.013	-0.014
Capital				
<u>Human</u>				
Ed.D.		-0.010	-0.012	-0.012
Profil Degree		0.120	0.137	0.135
Other Degree		-0.111 **	-0.112 **	-0.112 **
Career Path		0.039 **	0.038 **	0.039 **
Dean-Hard pure		-0.090 **	-0.092 **	-0.092 **
Dean-Hard applied		-0.116 **	-0.115 **	-0.115 **
Note.+p<0.10, *p<0.05,	**p<0.01			
Table 21 continues				

Table 21 Continued

	Demog-		Discrim-	Final
	raphics	Capital	ination	Model
Dean-Soft applied		-0.113 **	-0.112 **	-0.113 **
Dean-Soft pure		-0.114 **	-0.116 **	-0.116 **
Dean-Other		-0.146	-0.146	-0.146
Chief Business		-0.055	-0.054	-0.053
Chief Development		0.011	0.009	0.010
Chief Research		-0.146	-0.146	-0.146
Chief Student Affairs		-0.069 *	-0.073 *	-0.073 *
Other Chief Officer Social		-0.092	-0.093 +	-0.094+
Networks		0.033 **	0.036**	0.035 **
Activities		0.019	0.018	0.017
Cultural		0.023	0.020	***
Awards		0.000	0.000	0.000
Major-soft pure		0.094+	0.094+	0.092+
Major-hard applied		0.112*	0.116*	0.117*
Major-soft applied		0.115*	0.112 *	0.110*
Major-other		-0.003	0.006	0.003
High degree sel.		0.019+	0.018	0.019
Preferences		0.007	0.008	0.002
Scholar		0.002	0.002	0.008
Discrimination				
Climate			0.028 *	0.029 *
Climate x female			-0.035+	-0.038+
Climate x Af. Am.			-0.025	
Climate x Latino/a			-0.018	
Climate x Other			0.049	
PCP	55.4	71.4	71.5	71.7
-2 log likelihood	1323.31	1119.71	1111.67	1113.64
Pseudo R-square	0.027	0.233	0.241	0.239
Model Chi-square	25.276	228.879	236.92	234.949
Chi-square change	25.276 **	203.603 **	8.041	6.07 *

When only the first block was entered, African Americans were significantly (approximately 7%) more likely than Whites to believe their next position was likely to be a college presidency. Other people of color were also significantly more likely to report their next position was going to be a presidency. Women were significantly less likely (approximately 7%) than men to believe their next position was likely to be a college presidency. Age also was a significant predictor of the indicating that their next job position was likely to be a college presidency. The older the respondent, the less likely they were to report their next job was likely to be a presidency.

Capital

The predictive power of the model increased significantly after capital variables were entered. Approximately 71% of the cases were predicted correctly and the pseudo R-square increased from 0.027 to 0.233.

After the capital variables were included in the model, African Americans and other people of color were not significantly different than Whites in the probability of indicating their next position was likely to be a college presidency. In fact, the delta-p for African Americans was halved after the capital variables were included in the model. When all capital variables were included in the model, the differences between men and women increased from negative 7.1% negative 9%. Age continued to be a negative predictor of the likelihood of reporting their next job was a presidency.

Several human capitals were significant predictors of the dependent variable.

Respondents who held degrees other than terminal or professional degrees were 11% less likely than Ph.D. recipients to believe their next position was a presidential post.

The impact of career experiences and current position also significantly impacted the dependent variable. With every standard deviation increase in their path to the presidency, respondents were 4% more likely to indicate their next job was a presidency. Deans ranged from nine to 12% less likely than chief academic officers to believe their next position was a college presidency. Chief student affairs officers were 7% less likely to believe their next job was a college presidency.

Networks also were a significant predictor of the dependent variable. Every standard deviation increase in the networking composite variable resulted in a 3% increase in the probability of respondents' beliefs that their next job was likely to be a presidency.

The relationship between the discipline of a respondent's highest degree and the dependent variable proved substantive. Respondents whose highest degrees were in soft pure, soft applied and hard applied disciplines were significantly more likely than those in hard pure disciplines to expect their next job would be a college presidency. The selectivity of the institution where respondents earned their highest degree was also significant. With every incremental increase in perceived selectivity, the likelihood of believing their next job would be a presidency increased 2%.

Discrimination

The discrimination variables did little to increase the predictive power of the model. The chi-square change suggested no significant improvement when additional variables were added and the percent correctly predicted only increased 0.1%.

When the discrimination variables were added to the model, only small changes in the coefficients were observed. Women continued to be significantly less likely than men to report that their next job was likely to be a college presidency. The slight drop in the delta-p statistic for females suggests that discrimination has a negative impact on the presidential aspirations of women. Age continued to be a significantly negative predictor of the dependent variable.

The impact of significant capital variables changed very little when other blocks were added to the model. Those who earned "other" degrees were significantly less likely to report that their next job was a presidency. Career path was significantly positively related to the dependent variable. Deans, chief student affairs officers, and other chief officers were significantly less likely than chief academic officers to report they expected their next job to be a presidency.

Social capital, in the form of networks, was significantly positively related to the dependent variable. Senior administrators whose degrees were in hard pure disciplines were the least likely to indicate they expected their next job to be a presidency.

Two of the discriminatory climate variables were significantly related to the dependent variable. With every standard deviation increase in the discriminatory

climate variable, respondents were more likely to expect their next job to be a college presidency. No significant racial differences were observed. However, for every standard deviation increase in the discrimination variable, women were 4% less likely than men to believe their next job was likely to be a college presidency. When the non-significant discriminatory variables were removed from the model, the significance levels and coefficients of the variables remained relatively the same.

Behavioral Measures of Aspirations

Two measures of presidential application behavior were modeled using logistic regression to further understand the senior administrators presidential application behavior. The first measure, "applied for a presidency," was derived from a question that asked how many times participants applied for a presidency in the past two years. Approximately 10% responded having applied for at least one college presidency.

The second measure of application behavior, "nominated for a presidency," was derived from a question that asked how many times the respondents had been nominated for a presidency. Approximately 12% of the respondents had been nominated for at least one presidency in the past two years.

Applied for a Presidency

Demographics

A dichotomous measure of applied (1=had applied in the past two years, 0=had not applied in the past two years) was modeled using logistic regression. Table 22 shows the delta-p statistics for the logistic regression model predicting the probability of

whether the administrator had applied for a college presidency. As with the previous model, the demographic variables had relatively little predictive power. With only demographics entered, the model correctly predicted only 50% of the cases. Few of the demographic variables significantly predicted application behavior. However, females were on average significantly less likely to apply to a college presidency.

<u>Capital</u>

Capital accumulation was important in predicting application to a presidency. When capital variables were entered into the model, approximately 74% of the cases were correctly predicted, and the pseudo R-square increased from 0.033 to 0.244.

Table 22

Delta-p statistics for logistic regression model predicting applied for a presidency

	Demog-		Discrim-	Final
	raphics	Capital	ination	Model
Demographics				
African American	0.050	-0.002	0.016	-0.004
Latino/a	0.017	-0.005	0.019	-0.012
Other minority	0.084	0.077	-0.065	0.043
Female	-0.075 +	-0.097*	-0.086+	-0.086+
Age	0.009	-0.010	-0.009	-0.008
Age squared	-0.029 **	-0.025 *	-0.024*	-0.024*
Partner	-0.019	-0.034	-0.036	-0.035
Female x Partner	0.028	0.040	0.037	0.035
SES of Family	0.013	0.010	0.011	0.011
Note.+p<0.10, *p<0.0	5, **p<0.01			

Table 22 continues

Table 21 Continued

	Demog-	· · · · · · · · · · · · · · · · · · ·	Discrim-	Final
	raphics	Capital	ination	Model
Capital				
<u>Human</u>				
Ed.D.		0.008	0.005	0.006
Prof'l Degree		0.137	0.153	0.157
Other Degree		-0.114 **	-0.115 **	-0.115 **
Career Path		0.032 *	0.031 *	0.032*
Dean-Hard pure		-0.043 **	-0.042 **	-0.041 *
Dean-Hard applied		-0.102 **	-0.104 **	-0.104 **
Dean-Soft applied		-0.128 **	-0.128 **	-0.128 **
Dean-Soft pure		-0.103 **	-0.105 **	-0.106 **
Dean-Other		-0.146	-0.146	-0.146
Chief Business		-0.048	-0.049	-0.047
Chief Development		-0.042	-0.043	-0.044
Chief Research		-0.146	-0.146	-0.146
Chief Student Affairs		-0.115 **	-0.117 **	-0.117 **
Other Chief Officer		-0.038	-0.035	-0.041
<u>Social</u>				
Networks		0.013	0.017	0.016
Activities		0.044 **	0.046 **	0.045 **
<u>Cultural</u>				
Awards		0.021 +	0.022 +	0.021 +
Major-soft pure		0.243 **	0.246 **	0.241 **
Major-hard applied		0.392 **	0.389 **	0.397 **
Major-soft applied		0.224 **	0.222 **	0.219 **
Major-other		0.061	0.077	0.072
High degree sel.		0.027 +	0.026+	0.027 +
Preferences		-0.030	-0.031	0.014
Scholar Note.+p<0.10, *p<0.05, ** Table 22 continues	p<0.01	0.013	0.012	-0.031

Table 21 Continued

	Demog-			Discrim-	Final
	raphics		Capital	ination	Model
Discrimination					
Climate				0.021	0.025 +
Climate x female				-0.049+	-0.053 *
Climate x Af. Am.				-0.017	
Climate x Latino/a				-0.048	
Climate x Other				0.101	
PCP	49.5		73.8	74.1	73.8
-2 log likelihood	1031.99		856.525	847.926	850.701
Pseudo R-square	0.033		0.244	0.253	0.25
Model Chi-square	25.672		201.132	209.73	206.955
Chi-square change	25.672	**	31.448 **	8.598+	5.823 +

Note.+p<0.10, *p<0.05, **p<0.01

Table 22 Continued

Several human capital variables were significant predictors of the dependent variable. Administrators whose degrees were not terminal degrees or professional degrees were significantly less likely to have applied for a college presidency. Career path was significantly positively related to the likelihood of applying for a presidency. Deans of hard pure, hard applied and soft pure disciplines were significantly less likely than chief academic officers to apply for a presidency. Among chief officers, only chief student affairs officers had a lower probability of applying for a presidency than chief academic officers.

One measure of social capital significantly predicted application to a presidency.

Administrators were more likely to apply for a presidency if they were involved in activities where they could accumulate social capital.

Several of the cultural capital variables were significant predictors of application. As the number of awards earned by an administrator increased, the likelihood of applying to a presidency increased significantly. Respondents who earned degrees in soft pure, soft applied and hard applied disciplines were all more likely to apply to a presidency than administrators who earned degrees in hard pure disciplines. Administrators who earned their highest degrees from selective institutions were more likely than those who earned them from less selective institutions to apply to a college presidency.

Discrimination

Although the chi-square change suggested significant improvement in model fit, the inclusion of discrimination variables did little to substantively increase the predictive power of the model. The percent correctly predicted only increased 0.3%, and the pseudo r-square only increased from 0.244 to 0.253. The inclusion of discrimination variables had relatively little impact on the other coefficients in the model. Regardless of race, experiences with discrimination slightly increased the likelihood for applying for a presidency. However, for women, when discrimination was controlled for in the model, the differences between men and women decreased slightly from -0.097 to -0.086, suggesting that their experiences with discrimination explain a small part of differences in the application behavior between women and men.

Part of this explanation may have been women's experiences with discrimination. The more discrimination females experienced, the less likely they were

to apply for a college presidency. With every standard deviation increase in the interaction term of the discrimination composite variable and women, the likelihood of applying decreased 4.9%. This percentage increased slightly to 5.3% when the nonsignificant discrimination variables were included in the model.

Nominated For a Presidency

Because so few senior administrators expressed an interest in the presidency, perhaps another gauge of presidential aspirations was whether they were nominated for a presidency. A dichotomous measure of nominated (1=had been nominated in the past two years, 0=had not been nominated in the past two years) was modeled using logistic regression. The delta-p and model fit statistics are shown in Table 23.

Table 23 Delta-p statistics for logistic regression model predicting nominated for a presidency

	Demog-		Discrim-	Final
	raphics	Capital	ination	Model
Demographics				
African American	0.127 **	0.082 *	0.078	0.062 +
Latino/a	0.175 **	0.155 *	0.207 *	0.140 *
Other minority	0.010	0.015	0.036	-0.006
Female	0.003	-0.020	-0.028	-0.030
Age	0.033 **	0.007	0.009	0.008
Age squared	-0.009+	-0.003	-0.002	-0.002
Partner	0.038	0.032	0.033	0.031
Female x Partner	0.005	0.006	0.003	0.007
SES of Family	-0.002	-0.011	-0.011	-0.011
Note.+p<0.10, *p<0.0	5, **p<0.01			

Table 23 continues

Table 23 Continued

Ţ	Demog-	<u> </u>	Discrim-	Final
	raphics	Capital	ination	Model
Capital				
Human				
Ed.D.		0.060 *	0.062 *	0.059*
Prof'l Degree		0.381 **	0.374 **	0.382 **
Other Degree		-0.084 **	-0.085 **	-0.084 **
Career Path		0.049 **	0.049 **	0.049 **
Dean-Hard pure		-0.114**	-0.114 **	-0.114**
Dean-Hard applied		-0.110 **	-0.111 **	-0.110**
Dean-Soft applied		-0.108 **	-0.108 **	-0.107 **
Dean-Soft pure		-0.092 **	-0.092 **	-0.092 **
Dean-Other		-0.134*	-0.133*	-0.133 *
Chief Business		-0.051	-0.047	-0.049
Chief Development		-0.026	-0.023	-0.024
Chief Research		-0.109*	-0.109*	-0.108*
Chief Student Affairs		-0.072 *	-0.074 *	-0.073 *
Other Chief Officer		-0.083	-0.084+	-0.083 +
<u>Social</u>				
Networks		0.006	0.006	0.007
Activities		0.070 **	0.068 **	0.067 **
<u>Cultural</u>				
Awards		0.024 *	0.024 *	0.023 *
Major-soft pure		0.043	0.036	0.039
Major-hard applied		0.053	0.049	0.053
Major-soft applied		0.010	0.004	0.007
Major-other		-0.029	-0.031	-0.029
High degree sel.		0.022 *	0.021 *	0.021 *
Preferences		0.024 *	0.024 *	0.024 *
Scholar Note.+p<0.10, *p<0.05, ** Table 23 continues	p<0.01	0.005	0.005	0.005

Table 23 Continued

	Demog-		Discrim-	Final
	raphics	Capital	ination	Model
Discrimination				
Climate			0.020 *	0.015 +
Climate x female			0.001	
Climate x Af. Am.			-0.016	
Climate x Latino/a			-0.052	
Climate x Other			-0.034	
PCP	55.1	72.8	72.9	72.6
-2 log likelihood	1704.89	1410.74	1406.03	1408.46
Pseudo R-square	0.038	0.283	0.287	0.285
Model Chi-square	40.915	335.063	339.779	337.348
	*			
Chi-square change	40.915*	294.148 **	4.716	2.285

Note.+p<0.10, *p<0.05, **p<0.01

Demographics

The demographics model did very little to explain nominations. Only 55% of the cases were correctly predicted, and only 4% of the variance in the dependent variable was explained by demographic variables. The first model suggested a strong relationship between race/ethnicity and nomination. African Americans were 13% more likely to be nominated than Whites. Latinos/as were 18% more likely than Whites to be nominated for a presidency. Age was also a statistically significant predictor of the dependent variable, although the direction of the coefficient was different than in other models. The older the senior administrator, the more likely they were to be nominated for a presidency. Because the squared term was significant, this suggests a non-linear relationship between age and the dependent variable.

Capital

When capital variables were included in the model, the predictive power of the model increased significantly. The capital model correctly predicted 73% of the cases and explained approximately 28% of the variance in the nomination variable.

Even after controlling for capital accumulation, African Americans and Latinos/as were more likely than Whites to be nominated for a presidency, but their differences declined somewhat. When capital is controlled for in the model, African Americans were only 8% more likely than Whites to be nominated for a presidency. Latinos/as were approximately 16% more likely than Whites to be nominated. Age was no longer a statistically significant predictor of nomination.

Several of the human capital variables were significant predictors of the dependent variable. Administrators who earned an Ed.D. (6%) or a professional degree (37%) were significantly more likely than Ph.D.s to be nominated for a presidency. Those respondents who held other types of degrees were significantly less likely (9%) than Ph.D.s to have been nominated for a presidency. Administrators with more positions along the career path to the presidency were more likely to have been nominated. All deans were significantly less likely than chief academic officers to be nominated for a presidential post. Among chiefs, chief research officers, chief student affairs officers and other chief officers were less likely than academic chiefs to have been nominated. Chief business officers and chief development officers were as likely as academic chiefs to be nominated for a presidency.

Accumulation of social capital was important in the prediction of nominations.

The more engaged administrators were in activities in which they could accumulate social capital, the more likely they were to be nominated. With every standard deviation increase in activities, administrators were 7% more likely to be nominated for a presidency.

Different levels of cultural capital were also important in predicting nominations. The more awards an administrator earned, the more likely they were to be nominated for a presidency. Administrators who earned their highest degree from selective institutions were more likely to be nominated than those from less selective institutions. Finally, those with high scores on the cultural preferences scale were more likely to be nominated than those with low scores.

Discrimination

The models changed very little when discrimination variables were added.

Based on the chi-square change, no statistically significant increase was observed in the predictive power of the model. The model correctly predicted 73% of the cases and explained approximately 29% of the variance in the dependent variable.

The delta-p for African Americans dropped slightly from 8.2% to 7.8% and was no longer statistically significant when discrimination variables were added, suggesting no significant differences between Whites and African Americans. Latinos/as continued to be significantly more likely (21%) than Whites to be nominated for a presidency even after controlling for discrimination.

An examination of the delta-ps suggested that controlling for discrimination had little impact on the relationship between capital accumulation and nomination. Those with an Ed.D. or professional degree were significantly more likely than Ph.D.s to be nominated for a presidency. Deans, chief research officers and chief student affairs officers were seven to 13% less likely than chief academic officers to be nominated. The more activities in which senior administrators participated, the more likely they were to be nominated. Selectivity of the institution of highest degree continued to be a positive predictor of nominations. Cultural preferences were also significantly positively related to nomination.

Discrimination proved to be a significant positive predictor of nominations, yet no racial or gender differences were observed. With every standard deviation increase in the climate variable, administrators were 2% more likely to be nominated for a presidency.

The final model was essentially identical to the discrimination model with one exception. However, when non-significant discrimination variables were excluded,

African Americans were significantly more likely than Whites to be nominated for a presidency.

Summary of Models

The four models provided a great deal of information about the aspirations of senior administrators. It was instructive to examine the final models for the four

dependent variables. Table 24 shows the direction of the significant predictors in the final models of each of the dependent variables.

Demographics

Race/ethnicity was important in two of the models. The results suggested that people of color, particularly African Americans, had higher levels of presidential aspirations than Whites. African Americans were significantly more likely than Whites to expect to be a college president and to be nominated for a presidency. Latinos/as were significantly more likely than Whites to be nominated for a presidency.

Gender played a significant role in predicting all but one of the aspiration proxies. It would appear that women had lower presidential aspirations than men.

Women were significantly less likely than men to have a general or immediate expectation of being a college president. They also were significantly less likely than men to apply for a presidency.

Table 24 Model summary table

	Exp	ectancies	Bel	haviors
		Next Position		
	General	Presidency	Applied	Nominated
Demographics				
African American	+			+
Latino/a				+
Other minority				
Female	-	-	-	
Age	-	~		
Age squared			-	
Partner				
Female x Partner	+			
SES of Family				
Capital				
<u>Human</u>				
Ed.D.				+
Prof'l Degree				+
Other Degree	-	-	-	-
Career Path	+	+	+	+
Dean-Hard applied	-	-	-	-
Dean-Hard pure	_	_	_	-
Dean-Soft applied	-	_	-	-
Dean-Soft pure	-	-	-	-
Dean-Other	••			_
Chief Business				
Chief Development				
Chief Research	-			-
Chief Student Affairs	-	-	-	-
Other Chief Officer		-		-

Note. + indicates significantly positive relationship, - indicates significantly negative relationship
Table 24 continues

Table 24 Continued

	Expectancies		Bel	Behaviors		
		Next Position				
	General	Presidency	Applied	Nominated		
Social						
Networks	+	+				
Activities	+		+	+		
<u>Cultural</u>						
Awards	+		+	+		
Major-soft pure	+	+	+			
Major-hard applied	+	+	+			
Major-soft applied	+	+	+			
Major-other						
High degree sel.	+		+	+		
Preferences	+			+		
Scholar						
Discrimination						
Climate	+	+	+	+		
Climate x female		-	-			
Climate x Af. Am.						
Climate x Latino/a						
Climate x Other	+					

Note. + indicates significantly positive relationship, - indicates significantly negative relationship

Capital

The accumulation of human, social and cultural capital was significantly related to every measure of aspirations. Education was an important predictor of aspirations. For all four of the measures, administrators with a bachelor's or master's degree were significantly less likely than Ph.D.s to aspire to a presidency. However, when predicting

expectancies and the applied behaviors, administrators with Ed.D.s and professional degrees held similar levels of aspirations as Ph.D.s.

Experience and current position were also important predictors of aspirations. For all four of the models, an increase in the career path variable had a positive relationship with the dependent variable. Deans were significantly less likely than chief academic officers to aspire to the presidency. Among chiefs, chief business and development officers had aspirations similar to chief academic officers. For every aspiration measure, chief student affairs officers had significantly lower aspirations than chief academic officers. It would seem that research chiefs also had lower presidential aspirations than academic chiefs. For two of the measures, general expectancies and nominations, research chiefs were on average less likely to aspire to the presidency than academic chiefs.

Social capital also had a significant relationship with aspirations. Networks were significantly positive predictors of both expectancy measures. Participation in networks where capital could be accumulated was positively related to the general expectancies and both behavioral measures of aspirations.

Many of the cultural capital measures were important predictors of aspirations.

Awards were positively related to general expectancies and both behavioral measures of aspirations. For both expectancy measures and the applied measure, administrators who earned their highest degree in a hard pure discipline were significantly less likely than those earning degrees in other majors to aspire to a presidency. The selectivity of the

institution where administrators earned their highest degree was positively related to aspirations. For all but one of the measures, administrators who attended selective institutions were more likely to have presidential aspirations than those who attended less selective institutions. Cultural preferences also appear related to presidential aspirations. Cultural preferences were positively related to the general expectancy construct and nominations.

Discrimination

The discrimination variables also played a role in the prediction of aspirations.

In general, experiences with discrimination had a positive relationship with aspirations.

For all but the general expectancy model, this relationship was not significantly different across racial groups. In the model of general expectancy, other people of color reported a significantly positive relationship between discrimination and aspirations.

However, for women the relationship between discrimination and aspirations was negative for two of the models. It would seem discrimination had an impact on the more immediate measures of aspirations for women administrators. Women who experienced high levels of discrimination were less likely to expect that their next position was likely to be a presidency and to apply for a presidency.

DISCUSSION AND IMPLICATIONS

The purpose of this study was to understand the presidential aspirations of senior administrators at state colleges and universities. Using the research questions posed in the first chapter of this study as a guide, this chapter summarizes and explains the key findings, explores the limitations of the study and discusses the implications of the study for theory, policy, practice and future research.

Discussion of Findings

The key findings of this study, which are summarized below, are followed by more detailed analysis that explains them in greater detail.

- The typical senior administrator at state colleges and universities was a 54 year old,
 White, male from a middle to upper class family.
- Most of the senior administrators had accumulated large amounts of human, social and cultural capital.
- Most senior administrators did not aspire to be college presidents.
- Greater accumulation of human capital led to higher levels of presidential aspirations.
- Accumulation of social capital, as measured by networks and activities, was positively related to presidential aspirations.
- Senior administrators who reported high levels of cultural capital, as measured by cultural preferences, awards and selectivity of the institution of highest degree, were

more likely to want to be a college president than those who reported low levels of cultural capital.

- African Americans were significantly more likely than Whites to aspire to the
 presidency. After controlling for accumulated capital, African Americans continued
 to be significantly more likely than Whites to have presidential aspirations, but their
 differences were reduced.
- The multivariate analysis provided strong evidence to suggest that women want a presidential post significantly less than men.
- For women, their experiences with discrimination appeared to have an impact when
 predicting some of the measures of aspirations. For people of color, their reported
 experiences had little impact on their presidential aspirations.
- Forms of capital and experiences with discrimination explained very little of the racial and gender differences in presidential aspirations.

The following section summarized and explored these results in an attempt to answer the research questions posed.

Who were the senior administrators at state colleges and universities?

The average age of administrators was 54.7 years. Women made up 30% and people of color were only about 13% of the sample. African Americans were the most represented among people of color, making up 8% of the respondents.

Many of the respondents were first-generation college students who came from working-class families. For almost half of the administrators, neither parents attended

college. Fewer than one third had parents who completed a bachelor's degree or higher. Approximately 40% came from families whose parents worked blue-collar jobs. However, when job prestige and education were combined to represent family social class, approximately 79% of the respondents came from the middle to upper social classes.

People of color were considerably more likely than Whites to come from working-class families. Nearly two thirds of the Latino/a and African American respondents were first-generation college students. Over half of the African Americans had parents who worked in unskilled, semi-skilled and skilled manual jobs, which was more than twice the proportion of Whites.

Substantial racial and gender segmentation was found in the labor market of the senior positions studied. African Americans were proportionally under-represented in every deanship except for business and allied health and nursing. Few African Americans served as chief business officers or chief development officers. More than one fourth of the African Americans in the study were chief student affairs officers.

With only 40 Latinos/as included in the study, it was difficult to examine their representation among the senior positions. A large percentage of the Latinos/as were deans of arts, humanities and social sciences and chief student affairs officers. Few Latinos/as were deans of math and science and deans of business.

Women also had similar labor market segmentation. Few women served as deans of math and science and deans of business. Women were also under-represented

in the position of chief business officer. As other studies have suggested (Wolverton, 2001), women were over-represented as deans of education, allied health and nursing. Additionally, women were slightly over-represented in the position of chief student affairs officer.

This type of segmentation is not uncommon in higher education. The segmentation may have had an effect on the accumulation of capital for those individuals who have moved from faculty to senior administration. Some (Aguirre, 2000) studies have suggested that women and people of color are often situated in disciplines where teaching loads are high and the ability to earn grants is low. Women have often worked and earned degrees in disciplines characterized as female, such as English, nursing and the arts (Ervin, Thomas, & Zey-Ferrell, 1984; Exum, Menges, Watkins, & Berglund, 1984). Some have described these disciplines as "ghettoized" or peripheral (Aguirre, 2000; Exum et al., 1984; Jackson, 2001). Both the female and "ghettoized" areas of the university are characterized as having few resources. In effect, the segmentation of women and minority faculty pushes them to the periphery of the organization. This segmentation can result in women and faculty of color becoming relatively invisible in the academic workplace and are not seen as making significant contributions (Exum et al., 1984; Moore & Twombly, 1990; Nkomo, 1992).

Human capital

Senior administrators accumulated a great deal of human capital through a variety of educational and work experiences. The majority of participants held a

terminal degree, with 62% holding Ph.D.s and 15% holding Ed.D.s. A small percentage held only a master's degree. Almost none indicated their highest degree was a bachelor's or professional degree.

The degrees came from a broad range of disciplines. The most common discipline of highest degree was education, where one third of the respondents earned their degree. Degrees also were commonly held in business, the social sciences, arts and humanities. Except for business and administration chiefs, chief officers most frequently earned degrees in education. Degrees in the arts and humanities were also quite common among academic and development chiefs. Research chiefs frequently earned degrees in the sciences and behavioral sciences.

Most deans followed common trajectories to their deanships. Almost all took the traditional route beginning with a faculty position, followed by a series of administrative positions. A large percentage of deans were at one time assistant or associate deans, particularly in business and education. The majority of deans had been department chairs, although considerably fewer deans of business and education had held the position.

The trajectories of vice presidents were more varied than deans. Almost all chief Research and chief academic officers followed the traditional path to the vice presidency, beginning with a faculty position and a number of administrative positions prior to assuming a chief officer position. Nearly all of the student affairs, development

and business chiefs took nontraditional paths. Interestingly, more than half of the development chiefs and business chiefs were outside transfers.

Social capital

The participants of this study accumulated high levels of social capital. Most respondents claimed to have broad networks that were helpful in their career success.

They also seemed to have a support network of colleagues on whom they could rely for advice and information about job openings.

Many of the participants indicated they had several mentors throughout their career. In the past, mentors were interested in their careers and were helpful in career advancement. Yet more than half indicated they did not currently have a mentor. This finding suggests that having a mentor in the early stages of one's career is perhaps more important than at the senior level. It would seem that many of the participants relied more heavily on colleagues to serve as advisors, rather than relying on a mentor.

Participants were involved in a number of activities in which they could accumulate social capital. Nearly all had participated in external consulting and served on boards of directors of scholarly, business or civic organizations.

People of color who have reached these senior positions appeared to have accumulated significantly more social capital than Whites. African Americans and Latinos/as were more likely than Whites to report having broad networks and to claim that these networks had helped in their career advancement. African Americans were significantly more likely than Whites to be involved in a mentoring relationship. They

more frequently reported currently having a mentor and having several mentors throughout their career. For almost every activity, people of color, particularly African Americans, reported higher levels of engagement than Whites.

Senior women administrators also accumulated a great deal more social capital than their male counterparts. Women more frequently than men indicated they had a broad network of colleagues. They were also more likely to currently have a mentor and have participated in mentoring relationships during their career.

The literature suggested two possible explanations for the racial and gender differences in the accumulation of social capital. First, some have found differential requirements for under-represented groups. Researchers have found evidence to support differential hiring practices (Kolpin & Singell, 1996) and lower recognition and rewards (Hearn, 1999; Johnsrud & Heck, 1994) for women and people of color. Because the accumulation of social capital can translate into a form of credentialing (Bourdieu, 1986), the success of the women and people of color in this sample may be attributed to their ability to accumulate the necessary capital that allows to prove they are as capable as White men (Aguirre, 2000; Reyes & Halcon, 1991).

Researchers also have suggested that success in higher education for people of color is related to their ability to network, to attend workshops and to have a relationship with a mentor (Jackson, 2001; Turner & Meyers, 2000). Therefore, it should come as no surprise that the people of color in this study, who have achieve a great deal of professional success, have accumulated this social capital.

One final explanation was that people of color and women may have sought to overcome social isolation by seeking out people from similar backgrounds and experiences. Research has stressed the importance of people of color creating ethnically-based professional and social support groups (Turner & Meyers, 2000). Feminist literature similarly suggested that women have long been excluded from formal networks, and their success depends on a reliance on other women (Chliwniak, 1997; Milwid, 1990). This study found extremely high levels of participation in activities designed specifically for under-represented groups, suggesting that women and people of color are pursuing activities in which they can connect with people of a similar race and gender.

Cultural capital

As with social capital, the senior administrators in this study accumulated a great deal of cultural capital. Nearly every participant enjoyed cultural activities, such as the symphony, theater and museums. Many attended highly selective graduate institutions and reported that the reputation of the institution where they earned their degrees was an asset. Many were members of undergraduate honor societies as undergraduates and earned numerous awards in their careers. Many were productive scholars as well; most published journal articles, and half published at least one book.

Some very small racial differences were observed in the levels of accumulation of cultural capital. African Americans reported slightly lower ratings on the cultural preference scale than Whites. Latinos/as indicated slightly higher scores than Whites on

the preferences scale. People of color were less likely than Whites to attend a selective undergraduate institution but more likely than Whites to attend a selective graduate institution. In most cases, people of color were more likely than Whites to earn professional awards and publish scholarly works. Ogbu's (1993) work on cultural frames of reference provided some explanation for the similar cultural preferences across racial groups. He suggested that African Americans may respond to social stratification by rejecting the dominant culture and developing an oppositional cultural frame in which they develop their own norms or codes. They accomplish this through cultural inversion where they reject the cultural characteristics of the dominant majority. Some respond by assimilating into the mainstream culture but do so at what many believe is a high cost (Turner & Meyers, 2000).

What were the presidential aspirations of senior administrators?

Most senior administrators indicated that they did not want to be a college president. In fact, fewer than one third of the respondents either agreed or strongly agreed with the statement, "One day, I would like to be a college president." Their application behaviors supported this belief. Only one in ten had applied for a college presidency in the past two years.

Why did so few senior administrators aspire to be presidents? It was not because they felt unqualified. In fact, nearly two thirds of the participants believed they had the necessary qualifications and work experiences to be a college president. It was not because they felt that presidents were powerless. Nearly all believed presidents had the

power to make significant contributions to their campus, and few believed presidents had little power to influence educational programs.

It would seem that the unattractiveness of some of the roles of the college president was the reason for the lack of desire to become a president. Respondents most frequently cited two aspects of the presidency that were relatively unattractive to senior administrators. Fewer than half of the respondents stated that they found the fundraising role of the president appealing. Almost half stated that the busy schedule of college presidents was unattractive. Additionally, one third of the respondents indicated that they found the time presidents were required to spend with politicians was objectionable.

Chief academic officers held the highest presidential aspirations of all the respondents. They were the most likely of all senior administrators to express a desire to be a college president, to believe they were qualified for a presidency, to indicate their next job was likely to be a presidency, to apply for a presidency and to be nominated for a presidency. Even when controlling for demographic characteristics, human capital, social capital, cultural capital and perceived discrimination, chief academic officers were far more likely than other senior administrators to aspire to the presidency.

Because chief academic officers, in most cases, are the second highest-ranking official on college campuses and are the most common position from which new presidents are drawn (Green, 1988a; Ross & Green, 1998, 2000; Ross et al., 1993), their relatively high level of aspirations should come as no surprise.

Although chief academic officers were the most likely to express presidential aspirations, only half said that one day they would like to be a college president. A large percentage stated that they never wanted to be a college president. This finding is similar to the AGB study (Commission on Strengthening Presidential Leadership, 1984) that found that 40% of chief academic officers indicated a desire to be a college president.

What was the relationship between the forms of capital (human, social and cultural) and the aspirations of senior administrators?

The descriptive analysis provided evidence that senior administrators, in general, had accumulated a great deal of capital. However, the multivariate analysis suggested that, even with limited variability on the capital measures, differences in the accumulation of the forms of capital impacted aspirations.

Human Capital

Human capital accumulated through education was important, but only for those who had not earned a terminal or professional degree. People who earned a master's degree were much less likely than those who earned professional or terminal degrees to want to be a college president. They, perhaps, recognized that most presidents held higher degrees (Ross & Green, 1998, 2000; Ross et al., 1993) and considered the position to be unattainable.

Career experiences were also important components of human capital related to aspirations. Senior administrators who held more positions on the career path to their

current position were more likely to aspire to the presidency. Again, much of this might be attributed to the respondents' perception that they must have varied experiences to be a college president. This explanation is plausible given that few presidents arrive at the college presidency with little experience in higher education (Birnbaum & Umbach, 2001).

The current position of respondents was very important in predicting presidential aspirations. Even when controlling for other variables in the model, deans were significantly less likely than academic chiefs to aspire to be a college president. Few differences were observed among deans, although deans from hard applied disciplines appeared slightly more likely than other deans to want to be a college president. This finding may speak more to the personalities of people within the hard applied deanships rather than the position itself. Smart and others (Smart, 1997; Smart & Elton, 1975; Smart, Feldman, & Ethington, 2000) have suggested that individuals select academic disciplines and majors that are expressions of their personality. Individuals make these selections to best fit their personality with the goals and rewards of a particular discipline. Using Holland's (1966, 1985) career typology, Smart et al (2000) suggests that individuals from the hard applied disciplines value productivity and reward accomplishments. Individuals who select and are socialized in these disciplines also may be more likely than those from other disciplines to be sociable, self confident and ambitious.

However, the multivariate analysis indicated that the presidential aspirations of both chief business and chief development officers were not significantly different than chief academic officers, when controlling for demographic characteristics, forms of capital and perceived experiences with discrimination. This finding may be a reflection of what many perceive as the changing role of the president. Some have suggested that the college presidency has evolved and that presidents now must spend a majority of their time on fund-raising and political activities (Murphy, 1997). Perhaps business and development officers envisioned their skills and experiences to be the best fit for these new presidential demands.

Social Capital

Although some of the effects were relatively small, social capital had a statistically significant impact on the formation of presidential aspirations. Both networks and activities played an important role in predicting various aspects of presidential aspirations.

In the model predicting the general expectations composite, both activities and networks were statistically significant positive predictors of the desire to be a college president. Administrators who participated in activities in which they could accumulate social capital were more likely to apply for and to be nominated for a presidency. Respondents who had broad networks were more likely to indicate their next position was likely to be a college presidency.

To better understand the impact of social capital on aspirations, it is important to deconstruct the variables that made up networks and activities. The construct for networks not only describes the breadth of the respondents' collegial networks, but also measures mentoring. Mentors and networks played an important role in providing information to senior administrators as they evaluated their career aspirations and assessed their qualifications for a presidential position. Administrators who had greater connections were exposed to more information and were much more likely to indicate a desire to be a college president.

Cultural Capital

Cultural capital also played a significant role in the formulation of presidential aspirations. For example, the cultural capital accumulated by attending highly selective graduate institutions was positively related to presidential aspirations. This relationship parallels the findings of Zweigenhaft (1993), who found the capital accumulated by attending selective institutions significantly impacted occupational attainment. Cultural literacy also was significantly related to presidential aspirations. Senior administrators who reported high levels of enjoyment of cultural activities were more likely to have presidential aspirations.

This study posited that administrators from hard pure and soft pure disciplines would accumulate the greatest amount of cultural capital for several reasons. First, most presidents come from the hard pure and soft pure disciplines (Birnbaum & Umbach, 2001; Green, 1988a; Ross & Green, 2000; Ross et al., 1993), suggesting that training in

these disciplines was the most culturally acceptable. Some research suggests that degrees in applied fields do in fact limit administrative opportunities (Wolverton, 2001). Yet the variables representing discipline of highest degree behaved quite differently than expected. In fact, those trained in the hard pure disciplines were the least likely to aspire to be a college president, and those in the trained in the hard applied were the most likely to have presidential aspirations.

Again, the explanation for these disciplinary differences may be attributed to personality rather than accumulation of capital. The hard pure disciplines most reflect Holland's investigative environments, which emphasize the creation of intellectual knowledge Smart et al (2000). People in investigative environments tend to be independent and scholarly in their pursuit of solutions to problems. Given these characteristics, the disciplinary differences in aspirations were what one might expect.

What saliency did gender and race have in the prediction of presidential aspirations?

Gender

The descriptive analysis suggested gender was an important factor in understanding the aspirations of senior administrators. The descriptive data also indicated that women were less likely than men to want to be a college president.

Women were much more likely than men to indicate that they never want to be a college president and much less likely to apply to presidential vacancies. Additionally, women were less likely than men to believe that they were qualified to serve as a college president.

The multivariate analysis provided further support to suggest that women are less likely than men to want to be a college president. Even when controlling for human capital, social capital, cultural capital and experiences with discrimination, women were significantly less likely than men to aspire to the college presidency, to indicate that their next position was likely to be a college presidency or to apply for a presidency. While women were less interested in the presidency than men, the number of women presidents has increased dramatically in recent years. Although their representation remains low, the proportion of women in the college presidency increased from 9.3% to 19.0% between 1986 and 1998. Meanwhile, the proportion of people of color increased from 8% to only 11% in the same time period (Ross & Green, 2000).

Research has found that aspirations are highly sex-typed (Marini & Brinton, 1984; Shu & Marini, 1998). Women often aspire to positions in which a high proportion

of people in those positions are women. Some (Kanter, 1993) have suggested that an important component of access for under-represented groups to senior positions is a critical mass of those groups in similar positions. Given that, it is fair to assume that as the number of women in the presidency increases, more women would see the presidency as a realistic aspiration. Because of a lack of historical data on aspirations of women, this study alone did not provide evidence to support this conclusion and, in fact, raised further questions. Were women even less likely to have presidential aspiration 10 years ago? Are the aspirations of women increasing or decreasing?

The social construction of gender roles provided further insight into the gender differences in aspirations. Scholars have suggested that women continue to learn that they are to serve men in a subordinate or supportive role (Bengiveno, 1995; England, 1992). Women have often been placed in the role of a subordinate because they are expected to adjust their career goals in accordance with their role as family nurturer. Because women assume gender roles does not suggest they are unmotivated, but that they are expected to play a role in society that is counter to high aspirations (Lips, 1989). Balancing career and family forces women to prioritize and make choices that often are harmful to their career.

Social psychologists have also suggested that women are much more likely than men to internalize their failures and externalize their successes (Bengiveno, 1995; Chliwniak, 1997). The internalization of failures can have a dramatic effect on aspirations. Women who have experienced rejection in the job search process may

question their own qualifications to find reasons why they did not get the job. Such questioning may provide an explanation for the belief by some women that they were not qualified to be a college president.

Others have found that women and men have different values related to work and career achievement. Women tend to place a greater importance on the intrinsic, altruistic and social rewards of work (Herzog, 1982; Lupetow, 1980; Shu & Marini, 1998). Men tend to place a high priority on extrinsic rewards, such as earnings (Marini, Fan, Finley, & Beutel, 1996).

An interesting finding related to gender is that women with partners had higher general presidential expectations, on average, than single women. Some of the literature on women faculty supports such a finding. Astin and Davis (1985) found that "married women's careers resembled men's more closely than did the professional careers of single women." Several others (Astin & Milem, 1997; Milem, Sherlin, & Irwin, 2001) have found that women academics with partners were more productive and successful in their careers than single women.

Race/ethnicity

Race/ethnicity also had a significant relationship with presidential aspirations. People of color, particularly African Americans, were more likely to have presidential aspirations than Whites. In terms of immediate behaviors and beliefs, people of color were more likely than Whites to believe their next position was likely to be a presidency, to apply for a presidential post and to be nominated to fill a presidential

vacancy. For the more long-term idea of presidential aspirations, people of color were more likely than Whites to agree that one day they would like to be a college president.

The multivariate analysis provided further evidence of racial differences in presidential aspirations. For several of the dependent measures representing presidential aspirations, African Americans were, on average, significantly more likely to aspire to be a college president, even when controlling for other demographic characteristics, forms of capital and experiences with discrimination. Latinos/as were, on average, significantly more likely than Whites to be nominated for a college presidency.

Some have suggested that high achieving African Americans tend to have very high aspirations. The literature on high achieving students of color supported this conclusion. Allen (1985) found that African Americans who attended predominantly .

White colleges had very high educational and career aspirations and exceptionally high achievement drive. As with the current study, he found evidence, although weak, to support the absence of an association with abilities and aspirations. He did find that African American students' aspirational levels declined as they grew older, yet remained relatively high.

When examining racial differences, it is important to remember that the respondents were all very high-ranking officials and that most had spent years working their way up the career ladder to their senior position. Within that context, it was easier to understand why people of color were more likely to have presidential aspirations.

The administrators of color in this study have outlasted the problems related to poor

retention of under-represented groups in academic administration (Jackson, 2001; Menges & Exum, 1983; Turner & Meyers, 2000) by learning to navigate a system in which they are often isolated (Phelps, 1995) and subject to discrimination (Guillory, 2001; Turner & Meyers, 2000).

The high aspirations of people of color suggest that they have outmaneuvered Steele's (1995) notion of "stereotype threat" and the dis-identification with factors that have led to their success. Steele posits that minorities are subject to the stereotypes that over time negatively affect their performance. The successes of the administrators of color in this study may have prevented them from succumbing to such threats and may have had a significant impact on their aspirations.

It is possible that the high aspirations of people of color may also be related to their feelings of isolation. Some have argued that minorities in higher education place pressure upon themselves to prove they are as good as Whites (Reyes & Halcon, 1991). Even after years of success in higher education, perhaps senior administrators of color continue to feel the pressure to prove themselves, increasing their desire to obtain a presidential post.

How did experiences with discrimination relate to the aspirations of senior administrators?

When discussing the impact of discrimination on aspirations, it is important to remember that the descriptive and multivariate analyses from this study indicated that a very large percentage of people of color and women experienced discrimination in their

career. This posed a measurement problem when attempting to model aspirations. As one might expect, the frequency of experiences with discrimination resulted in relatively high correlations between the females and the different racial groups and the main effects and interaction terms representing discrimination experienced by different groups and race and gender. A critical assumption in regression analysis is that the independent variables are uncorrelated. The high correlations, or multicollinearity, between under-represented groups and the discrimination variables is a violation of this assumption. As a result, in most cases, the discrimination variables had little or no predictive power and did not substantively impact the relationship between race and gender and the dependent variables.

Discrimination and Women

The higher the levels of perceived discrimination, the less likely women were to apply to a presidency and to believe that their next position was likely to be a college presidency. When predicting the general presidential aspirations construct, discrimination did not affect the relationship between women and aspirations. However, the other models provided some evidence to suggest that women's experiences with discrimination may have had a negative impact on their presidential aspirations.

For the more immediate measures of aspirations (as measured by "next position is a college presidency" and "applied for a college presidency"), women were more likely than men to feel the negative effects of discrimination.

The impact of discrimination on women was complicated by limitations of the data. For example, this study was not able to examine issues of gender and race as distinct concepts because the number of women of color in the sample was quite small. This constraint prevented the exploration of the interaction between race and gender within the models. Additionally, because gender and racial discrimination constructs were highly correlated, the only way to explore issues of discrimination was to combine the constructs.

Discrimination and People of Color

For people of color, the impact of discrimination on aspirations was even more complex. While the effects were somewhat small, experiences with discrimination were positively related to presidential aspirations. Additionally, it seems that the impact of discrimination did not differ greatly by race.

For African Americans, the impact that discrimination had on aspirations was negligible. In none of the models were the discrimination interaction terms for African Americans significantly than for other racial/ethnic groups. When discrimination was controlled for in the models, there were no substantive changes in the coefficients for African Americans.

The impact that discrimination had on the aspirations of Latinos/as was similar to African Americans. None of the discrimination interaction terms for Latinos/as were statistically significantly different than for the other racial groups. When discrimination

was included in the model, there were no substantive changes in the coefficients for Latinos/as.

In comparison, the more discrimination experienced by the other minority group (Asian Pacific Americans and multiracial), the more likely they were to aspire to be a college president. When these experiences with discrimination were controlled for in the model, they reported a significantly lower desire than other racial groups to become a college president, suggesting that experiences with discrimination may have strengthened their desire.

Further evidence to support this conclusion was found in the model predicting the likelihood that the respondents' next position was a college presidency. Prior to controlling for discrimination, other minorities were significantly more likely than all racial groups to indicate that their next position was likely to be a college presidency. When discrimination variables were entered in the models, the difference between Whites and other minorities was no longer statistically significant. Again, these findings suggested that other minorities may in fact desire a presidency more if they experience high levels of discrimination.

The data suggest that experiences with gender and racial discrimination were an inevitable part of the careers of senior administrators from under-represented groups.

For people of color, these experiences did little to dampen their desire to achieve. These findings also suggest that the perceived discrimination encountered by people of color may have had very little substantive impact on presidential aspirations and may in fact

have pushed them to have higher aspirations. Discrimination may increase their desire to prove that they are as good as those who have discriminated against them (Reyes & Halcon, 1991).

The relationship between the discrimination of people of color and aspirations does not suggest that one way to increase aspirations is to increase discrimination. It is important to consider the unique nature of the respondents when trying to explain the impact of discrimination on the aspirations of people of color. Much of the relationship between aspirations and discrimination of minorities speaks to the resilience of people of color who have successfully navigated an uninviting system to reach positions where they have historically been under-represented. At the same time, it ignores the possibility that many potential candidates who were equally able, but less resilient, may have dropped out of the competition for career advancement because of the discrimination they encountered (Jackson, 2001).

To what degree did forms of capital and experiences with discrimination explain racial and gender differences in presidential aspirations?

In general, forms of capital and discrimination did little to explain away racial and gender differences in aspirations. When predicting the expectancy construct, the differences between African Americans decreased somewhat when capital and discrimination were controlled for, but African Americans still had significantly higher expectations than Whites. A similar pattern was seen when modeling nominations.

For women, regardless of what was controlled, they wanted to be a president less than men. The relationship between gender and aspirations was relatively unchanged when discrimination and capital variables were entered into the model.

The inability to explain gender and racial differences may be attributed to the fact that this population had all achieved high levels of success.

Because almost all women and people of color reported high levels of discrimination, it is reasonable to assume that they have found ways to deal with sexism and racism. In fact, for people of color, it would seem that their experiences with racism increased their presidential aspirations.

Limitations

This study had several limitations, the first of which was instrumentation.

Although the survey borrowed a handful of items from previously used surveys and was pilot tested, it was the first time the instrument was used on a large-scale sample. The psychometric properties of the survey were relatively strong, yet some of the measures lacked variability.

The current study was one of the first of its kind to apply the capital frames to careers of college administrators. Although this was a strength of this study, it might also be considered limitation. The complexity of the concepts and the inherent overlap of the forms of capital presented a challenge. It was difficult to distinguish what was considered social capital, cultural capital and human capital. Researchers often used the terms interchangeably or did not distinguish between the concepts and how they should

be measured. Although the current study applied definitions that made the concepts mutually exclusive, the concepts were expected to overlap or interact.

In addition, the theories of social and cultural capital, by definition, rely on what is considered to be an acceptable accumulation of capital within the bounds established by the culture of the organization. The literature provided some guidance about what is considered culturally acceptable, but what is deemed as appropriate levels of social and cultural capital may be institution specific. A narrowly defined sample of administrators from like institutions was chosen in an attempt to overcome these limitations.

Nevertheless, this study was still limited by the measures of what is accepted by the dominant culture of specific institutions.

Studying a sample of elites also posed unique challenges in terms of measurement. Because the members of the sample were similar in terms of demographic and positional variables, the variability on some of the measures was limited.

A more serious limitation was related to the measurement of aspirations.

Autobiographies of presidents often reflect the idea that much of what occurs in careers is often a result of chance rather than rational decision-making. A study of school superintendents revealed that the career success of executives is almost random (March & March, 1977). However, this randomness does not make factors such as qualifications, work experiences and social structures irrelevant,

...(a)ny more than the fact that a group of light bulbs are indistinguishable in their illumination or life expectancy make the

light they give unwanted. Nor does it indicate that efforts to improving the training or selection of educational administrators are useless. The normative lesson is much narrower. It is that the same behaviors, abilities and values that produce successful careers at the top will, on the average, produce unsuccessful ones also. (March & March, 1997, pp. 407-408)

This study attempted to overcome this problem of randomness of aspirations by creating several attitudinal items that assessed the degree to which respondents aspired or expected to be a president. Additional behavioral measures were also used to try to overcome the randomness of aspirations.

Another limitation of the study was relative inability to determine response bias. Because of the lack of data on vice presidents and deans, it was difficult to determine whether respondents were different than non-respondents. This study was one of the first to conduct a national survey of vice presidents and deans. In an attempt to overcome response bias, several measures of respondents were compared to the population. With only one exception, the respondents matched the population. In addition, because the response rate exceeded 60%, one could assume that the data had limited response bias.

Another potential limitation of the study was the use of a survey to examine issues related to race. Some have suggested the presence of nonrandom measurement error when people of color are asked questions related to race. For example, Davis (1997b) argued that responses will be altered based on what respondents think are the expectations of the researcher. Responses also may reflect distrust or uneasiness

because of the uncertainty of the race of the researcher (Davis, 1997a). While this may not be the case for this study, further research might be needed to understand the implications of conducting survey research when exploring issues of race.

The final limitation of this study is the possible simultaneity in the regression models. In other words, does an individual who aspires to be a president more actively pursue opportunities to accumulate capital, or does the accumulation capital result in presidential aspirations? While it would certainly be helpful to be able to state definitively that the accumulation of social capital increases presidential aspirations, this study cannot make such assertions. However, this study is successful in advancing the understanding of the relationship between the forms of capital and presidential aspirations. In fact, the theoretical framework employed by this study suggested that the concepts of capital and aspirations are dynamic (McClelland, 1990) so that attempting to determine the causal nature of either of the concepts may be impossible.

Implications for Theory, Policy, Practice and Research

Implications for Theory

Forms of Capital

The findings of this study offer some important theoretical implications. This study is one of the first to expand the concepts of cultural and social capital to elite positions. Previous work using cultural and social capital focused on success in secondary education and postsecondary education, access to higher education and early formation of aspirations. The current study found evidence that suggests the

accumulation of cultural and was important, even for individuals who have attained a high level of career success.

Even at senior levels, the accumulation of social and cultural capital was related to aspirations. High levels of social capital, as measured by networks, mentoring and participation in activities, were significantly related to the greater likelihood of presidential aspirations. Cultural capital, as measured by cultural preferences and institutional selectivity, was also significantly related to presidential aspirations. These findings expand Bourdieu's work on cultural capital beyond childhood and early adulthood.

This study also found significant gender and racial differences on the measures of social capital. Women administrators and administrators of color accumulated significantly more social capital in their rise to their current position. Under-represented groups may pursue relationships in order to overcome feelings of isolation that often result from working in a position where they look like few of their colleagues.

This study offered some insight into the habitus of those in executive positions in the academy. The study further provided evidence to support McClelland's (1990) assertion that the habitus, an individual's enduring expectations and aspirations, is dynamic. Bourdieu (1977b; Bourdieu & Passeron, 1977) would suggest that some of the participants in this study would not have been able to accumulate the required social and cultural capital because they grew up in families with relatively low social status. He would expect this upbringing to create relatively low aspirations that would change

very little over time. The enduring nature of the habitus is in part supported by the fact that only a small proportion of senior administrators in this study came from low social status families, suggesting that those with low career expectations never reached senior administrative positions. On the other hand, the findings of this study indicate that some individuals from low socio-economic backgrounds did achieve a great deal of success. Perhaps, as they accumulated capital, they obtained information that caused a change in decision making around career aspirations. The findings of this study suggest that Bourdieu's ideas about impact of social class on aspirations and attainment may not fully hold true for those making decisions later in their careers.

The findings of this study suggest a complementary perspective of capital accumulation rather than a competing perspective. Administrators aspire to positions that are reasonable and make investments in efforts to accumulate capital. As they accumulate the different forms of capital, they test their returns on their investments. In response to these tests of returns, individuals accumulate different forms of capital at various stages in their career to complement the capital they have already accumulated. As a result, the administrators in this study accumulated varying levels of all three types of capital studied and different patterns of accumulation for different groups. For example, African Americans in this study were overrepresented in positions of that allows for less capital accumulation (e.g., chief student affairs officer). Although African Americans were able to accumulate less capital through their positions, they

were still able to have accumulated a great deal more social capital than all other racial groups.

Racial and Gender Differences in Aspirations

The second area of theory extended by this study relates to the reasons why so few people of color and women are college presidents. An explanation for the few women and people of color in the presidency might be that they want the job less than White men. This study, which examined those at the top of the pipeline to the presidency, found that this explanation was only partly true. In fact, senior administrators of color wanted the job more than Whites. On the other hand, while there were more women in the pipeline relative to people of color, the evidence from the multivariate analysis suggested that they wanted the job less than men.

The results of the study were somewhat inconclusive about the reasons for racial and gender differences in aspirations. Experiences with discrimination did appear to dampen women's desires to be a college president. Capital slightly ameliorated the differences between African Americans and Whites, yet African Americans still had higher levels of expectations of becoming a president, even after controlling for capital and discrimination.

Pipeline Problem

Researchers often argue that the reason so few people of color and women become college presidents is that they are under-represented in the career pipeline to the

presidency. With people of color making up only 12.5% and women making up only 30.0% of those people considered to be at the top of the pipeline, this study found some evidence to support the pipeline argument.

However, a closer examination of those in the pipeline suggests that argument may only be partly true (see Table 25). Beginning with the population of the United States, the most recent census data (United States Bureau of the Census, 2001) indicated that Whites were only 69.1% of the population in 2000. African Americans constituted 12.3% of the population. Latinos/as represented 12.5%, and Asian Pacific Americans made up 3.6%. Senior administrators of color in this study made up only 12.5% of the sample. Only 8% were African American, and 2% were Latino/a. The differences in the representation of racial groups is particularly important given that experts have predicted that by the year 2050, people of color will represent 47.2% of the population (United States Bureau of the Census, 1996). In 2000, there were more women (50.9%) in the United States than men (49.1percent).

If one considers bachelor's degree recipients as the next step in the pipeline, the representation of people among bachelor degree recipients is smaller than the overall population (Chronicle of Higher Education, 2001). In 1997 and 1998 academic year, students of color made up approximately 21% (9% African American, 6% Latino/a, and 7% other) of all bachelor degree recipients. Women represented 56% of all undergraduates in 1997 and 1998 academic year.

Representation of people of color and women in the pipeline to the presidency

	Race/Ethnicity				Gender	
		African		Other		
	White	American	Latino/a	Minority	Male	Female
United States	69.1	12.3	12.5	6.1	49.1	50.9
Earned Bachelor's	78.7	8.6	5.8	6.9	43.9	56.1
Earned Doctorates	83.1	6.0	3.7	7.3	58.0	42.0
Faculty	86.3	5.0	2.7	6.1	64.0	36.0
Sr. Administrators	87.5	8.0	2.5	2.0	69.8	30.2
Presidents	88.7	6.3	3.2	1.8	80.7	19.3
Sr. Admin. w/ pres. Aspirations	81.5	12.3	3.6	2.6	72.4	27.6

Note. Source for United States data was United States Bureau of the Census (2001). Data on earned bachelor's, earned doctorates and faculty was the Chronicle of Higher Education Almanac (2001). The data on presidents came from Ross and Green (2000). Senior administrators with presidential aspirations was derived from those that agreed or strongly agreed with the statement "One day, I would like to be a college president."

A decrease in the representation of people of color and women is observed in the next step in the pipeline, doctoral degree recipients. In the 1997 and 1998 academic year, 17% of doctoral degree recipients were people of color (Chronicle of Higher Education, 2001). Approximately 6% were African American, 4% were Latino/a and 7% were other people of color. The Chronicle (2001) also reported that 42% of the doctoral degrees conferred in the 1997 and 1998 academic year were awarded to women.

When examining faculty, the pipeline for people of color and women became narrower. Faculty of color constituted 14% of all faculty in 1997 (Chronicle of Higher Education, 2001). Five percent of the faculty were African Americans, 6% were Asian

Pacific Americans and 3% were Latinos/as. Women represented approximately 36% of the faculty.

In the next stage, the pipeline narrows even further for most racial groups and women. The representation of Latinos/as, other minorities and women among senior administrators was lower than their representation among faculty. The proportion of African Americans in the pipeline to the presidency increased at the senior administrator level. They represented 8% of all senior administrators while they only represented 5% of the faculty and 6% of those who earned doctorates. The percentage was still slightly lower than bachelor's degree recipients (8.6%) and lower than the overall population (12.3%).

Presidents looked slightly different than senior administrators. The overall proportion of people of color in the presidency was slightly lower than those in senior-level positions. The largest percentage decrease was among African Americans, who represented 8.0% of the senior administrators and only 6.3% of the presidents. The percentage of Latinos/as increased slightly from the senior administrator position to the presidency (from 2.5% to 3.2%). The representation of women in the presidency was almost 11 percentage points less (19.3% compared to 30.2%) than the representation among senior administrators.

It is important to note, that the representation of these of African Americans and women in the presidency is still less than among senior administrators. While institutions involved in searches will not be overrun with women and African American

applicants, the data provide some evidence that there are women and African American candidates at the top of the pipeline.

Because the majority of senior administrators do not aspire to the position, it also might be important to consider aspirations when discussing the pipeline to the presidency. The pool of candidates is narrowed considerably if only presidential aspirants are considered. In addition, important racial and ethnic differences in aspirations exist. Even when qualifications and capital accumulation are held equal, African Americans want the position more than Whites. On the other hand, women want to be a president significantly less than men.

With the general lack of desire to become a college president and the racial and gender differences in aspirations, this study suggests an alternative definition to the pipeline. What would the pipeline look like if it were defined to include only those who were in senior positions and expressed an interest in the presidency? The data in Table 25 indicate that the top of the pipeline would look much different than when the traditional definition was employed.

The implications of this alternative definition of the pipeline can be seen using an example from the data. Of those people who agreed or strongly agreed with the statement, "One day, I would like to be a college president," approximately one in five were people of color. Therefore, 12% of the pipeline would be African American, 4% would be Latino/a and 3% would be other people of color.

When this alternative definition of the pipeline is applied, the possible changes in the diversity of college presidents are dramatic. Following the equal proportion logic implied in the pipeline argument, if 52 (approximately 13%) of the 397 AASCU institutions were to have a presidential vacancy this year, and the vacancies were filled by only those with presidential aspirations, one in five vacancies would be filled by those senior minority administrators who had presidential aspirations. The result would be that 10 of these new presidents would come from a minority group. Assuming that 12.5% of the sitting presidents were people of color, the 10 new presidents of color would increase the proportion of people of color in the presidency to more than 15%. In five years, the diversity of the college presidency would have changed considerably.

If the alternative definition were applied to women, the result would be somewhat different. Under the new definition, only 27.6% of the women senior administrators indicated a desire to become a college president. While the percentage of women in the newly defined pipeline is still larger than the percentage of women presidents, the proportion of possible women candidates for presidential vacancies decreases slightly.

Discrimination

In addition to the pipeline argument, others pointed to discrimination as a reason for the glass ceiling experienced by people of color and women in higher education (Harvey, 1999). This study suggests that people from under-represented groups do experience discrimination as they attempt to advance in their careers. This study found

that women who experienced discrimination were less likely to want to be a college president. Yet people of color remained undeterred in their pursuit of the presidency despite widespread experiences with discrimination.

Further evidence supporting discrimination as the cause for the lack of diversity in the college presidency was made in the examination of application patterns of senior administrators. Of the 89 Whites who interviewed for a presidency, 22.4% received an offer. Of the 11 African Americans who were interviewed, only one interviewee (approximately 9.1%) received an offer.

Another way to examine these differences would be to explore the qualifications of those who were interviewed and offered positions. Deans (28.6% of the interviewees) and chief academic officers (42.9% of the interviewees) were the most likely to be interviewed for a presidency. Of the 49 White academic chiefs who were interviewed, 10 (20.4%) were given an offer. Of the 4 African American chief academic officers interviewed, none were given an offer. Seventeen White deans were interviewed and five (29.4%) were offered the position. Four African American deans were interviewed, and none received an offer.

A closer look at the interviewees revealed some differences between African Americans and Whites. Approximately 81% of the Whites and 63% of the African Americans held a Ph.D. African Americans (27.3%) interviewees were more likely to hold an Ed.D. than White (14.6%) interviewees. Nearly all of the Whites (81.8%) who were interviewed had earned tenure while just under two thirds (63.6%) of the African

Americans had earned tenure. Approximately 91% of the African American interviewees earned their degree in a hard applied discipline, compared to 40% of the Whites. The one African American who was offered a presidency held a Ph.D. in a hard applied discipline and had earned tenure. If one were assume earning a Ph.D. and tenure were important qualifications for a college president, these numbers suggest some racial differences that were important in the hiring processes.

A similar pattern was seen among women. Approximately 14% of the women who were interviewed for a presidency were given offers, while 29% of the men were offered the position.

Again, examining these differences for chief academic officers and deans provided further insight into the gender differences in those offered positions. Forty-one male academic chiefs were interviewed for a presidency, and nine (22.0%) were given an offer. Fifteen women academic chiefs were interviewed, and only two (13.3%) were offered the position. Of the 21 male deans interviewed, five received an offer (23.8%). Only two female deans were interviewed, and neither was offered a presidency.

These data warrant a closer look at the women interviewees. In terms of highest degree earned, discipline of highest degree and tenure, the women interviewees were quite similar to the men. The women interviewed were only slightly less likely than men to hold a Ph. D. (80.0% compared to 76.2%). Women were represented equally to men in every discipline of highest degree. Women (85.7%) were slightly more likely than men (76.2%) to have earned tenure. All of the women offered a presidency had

earned tenure and held a Ph.D. This evidence suggests few differences between men and women who were interviewed for a presidency.

Because of the small number of administrators interviewing for and being offered presidencies, these data should be interpreted with caution. Nevertheless, the patterns reported here and the prevalence of reported experiences with discrimination are evidence of gender discrimination in the hiring processes of presidents. The evidence for discrimination of people of color in the presidential hiring process is somewhat inconclusive, but it does suggest that perhaps people of color are experiencing inequities in the hiring process as well.

There are other possible explanations for the patterns of interviews and offers. They provide further evidence for a powerful culture that expects presidents to have certain experiences. It is important to remember that all of those who were interviewed had worked many years in higher education and were serving in leadership positions. A search committee deemed them to be qualified enough to be given an interview. These issues raise larger questions about a system that perhaps unknowingly creates barriers for people of color and women. While it is difficult to determine the absolute qualifications for a president, colleges and universities should be asking questions about what they expect from a college president. Do things such as tenure, a degree in a hard pure or soft pure discipline or a Ph.D. make a good president, or do they further perpetuate inequities in the hiring process of presidents?

Policy and Practice

Beyond the theoretical contributions, this study provides evidence to support several recommended policies and practices related to the careers and aspirations of senior administrators.

Institutions should work to provide opportunities for people of color and women to have access to the pipeline to the presidency. Although the lack of diversity in the pipeline may not be the sole reason for the lack of diversity in the presidency, this study provided some evidence to support that it is still a problem, particularly for people of color. Senior administrative positions and college presidencies are not incredibly diverse. This study found that people of color serve in less than 13% of all senior administrative positions, and women serve in 30% of the positions.

In an ideal world, the diversity of the presidency and those in the pipeline to the presidency would reflect the diversity of the democratic society in which colleges and universities operate. Therefore, three presidents in 10 would be people of color, and one in two would be women.

However, as Trower and Chait (2002) suggest, the pipeline may not be the sole explanation for the problem. In their study of faculty, they suggest that even if people of color and women were well represented in the pipeline "a fundamental challenge would remain: the pipeline empties into territory women and faculty of color too often experience as uninviting, unaccommodating, and unappealing. For that reason, many otherwise qualified candidates forgo graduate school altogether, others withdraw

midstream, and still others with doctorate in hand opt for alternative careers. In short, the pipeline leaks." It would seem that the pipeline has leaks all the way to the presidency.

While identifying the pipeline problem is easy, the solution is much more complex. As the literature reviewed for this study suggested, social structures play a large role in the formation of educational and career goals. As Bourdieu (1977a) has suggested, dominant cultures create structures that reproduce social class structures. Access to education is at the heart of social reproduction. This would suggest that minority groups face significant disadvantages as they attempt to navigate educational systems. If Bourdieu was correct, then where does the pipeline to the presidency begin, and how do we remedy inequities?

One might identify entry into graduate school as the initial entry into the pipeline. If that were the case, providing access and support for women graduate students and graduate students of color may be a first step. Because people of color have lower college graduation rates than Whites, the pipeline may begin upon entry into a college or university. Again, providing access and support for undergraduate students of color may be the solution if this is the point of entry into the presidential pipeline.

This study provides some direction for understanding the pipeline problem. It appears that policies that support the accumulation of different forms of capital are critical for the success of people of color and women. The following sections provide recommendations for policy and practice that may support the accumulation of capital

and increase diversity among leaders at state colleges and universities. While these suggestions will benefit all people, they are particularly important for people of color and women.

Colleges and national higher education associations should develop mentoring programs, particularly for those administrators at the senior level. The positive impact of mentoring on the careers of administrators was quite evident in this study. Yet less than half of the respondents currently had a mentor. Given the relationship between social capital and aspirations, it would seem important to develop these relationships, even at later stages in an administrator's career. Although this study found that few senior administrators had mentors, it did provide evidence to suggest that mentoring at all levels was important.

Colleges and national higher education associations should continue to develop opportunities for networking. This study found new evidence to suggest that networks and professional activities had a positive impact on the aspirations of senior administrators. AASCU's Millennium Leadership Initiative, Harvard's Institute for Educational Management, Bryn Mawr's Summer Institute for Women in Higher Education Administration, and the American Council on Education's Fellowship offer models for programs that not only provide training but offer senior administrators the opportunity to network. The data from this study highlight the importance of such programs and support the proliferation of programs like them.

Presidential search committees and search firms need to be aggressive in their pursuit of women and people of color. This study was the first of its kind to find significant racial and gender differences in presidential aspirations. While this study found that there were relatively few people of color in the pipeline to the presidency, those individuals that are in the pipeline want the position. Search committees must remain vigilant in their pursuit of candidates of color and women. Because women want the job even less than men, presidential search committees must be even more insistent on the inclusion of women in the pools.

Because women are less likely than men to aspire to a college presidency, campuses that wish to diversify the presidency may have difficulty attracting women. Committees might attempt to change women's views about either the attractiveness of the position, or about their ability to function effectively in it. In their pursuit of applicants, search committees might seek out senior women administrators and discuss the flexibility available in their role as president. For example, if fund-raising is unattractive to the possible candidate, perhaps some of the fund-raising burden could be shared with others on campus. While it is unrealistic to remove all of the fund-raising responsibilities from a president's job, much of the burden could be assumed by other senior leaders on campus. Because both male and female respondents indicated that the fund-raising role made the position undesirable, this strategy may increase the entire pool of candidates.

Colleges and universities should consider beginning the search process with a discussion of equity in the hiring process and should continue the discussion several times throughout the process. If the search does not yield a diverse pool of qualified candidates, institutions should not be afraid to reopen the search. Reopening a search may not yield stronger candidates, but it will send a signal to the search committee and the higher education community about the institution's commitment to diversity.

Colleges and universities should work to create supportive environments for women and people of color. A larger concern raised by this study is the climate for women and people of color in senior positions in higher education. This study provided evidence to suggest that racism and sexism continue to be prevalent in higher education. Even though this "chilly climate" had little impact on the aspirations of people of color and only modest negative effects on the aspirations of women, its presence is counter to the democratic ideals of higher education.

The effects of sexism and racism may have had little impact on the aspirations of those who have reached senior positions, but it may have prevented qualified people from even pursuing a career in higher education (Trower & Chait, 2002). Several studies of faculty and administrators of color at predominantly White colleges cite low retention rates and point to discrimination as the reasons for departure (Aguirre, 2000; Jackson, 2001). Imagine if environments were supportive of people who are underrepresented in higher education, who would be serving as senior administrators on college campuses? What would their presidential aspirations be?

This study also provided insight into the current qualifications required of leaders at state colleges and universities. Deans and vice presidents, particularly at state colleges and universities, have been relatively overlooked in the literature on higher education. Prior to this study, those who aspired to senior leadership positions could only guess at the qualifications needed to advance their careers. This study provided an extensive description of senior administrators at state colleges and universities and as a result, a better understanding of the cultural norms that dictate the qualifications of potential leaders.

Those who aspire to senior administrative positions would be advised to earn a Ph.D. They should consider spending several years as a productive member of the faculty, followed by several years in various administrative appointments. They would be wise to accumulate social capital by taking leadership positions in scholarly and professional organizations. They might consider becoming active in their community or the business community by serving on the board of directors of civic or business organizations. Aspirants should find a mentor who is interested in their career and can provide information and advice about ways to achieve their career goals. While none of these suggestions guarantee success, most of the respondents (all of whom had experienced a high degree of success) had accumulated high levels of social, cultural and human capital.

Institutions should examine what qualifications are necessary to be a college president. This study found that people of color and women often arrive at senior level

positions with experiences different than White men. Additionally, they often work in senior positions that are thought of as less presidential, such as chief student affairs officers and deans of nursing. As an institution enters a search process, it should question its assumptions about the qualifications needed for a presidency. Are these qualifications necessary for the success of a president, or are they merely social expectations, dictated by the culture of higher education, that have little to do with success? This question is particularly salient for state colleges and universities. While research is still important at these institutions, teaching and service to students plays a much larger role than at Research Universities.

This study did not seek to provide evidence of what makes a successful president; however, if institutions wish to diversify the presidency, they might consider questioning their assumptions about qualifications. In fact, a closer look at the qualifications of current college presidents reveals that many come from nontraditional backgrounds.

For example, does a president have to earn a Ph.D., or can someone with an Ed.D. have the necessary academic qualifications to be a college president? With 22.0% of all presidents holding an Ed.D. (Ross & Green, 2000), many institutions have found that a Ph.D. is not an absolute requirement.

Does a degree in education make a candidate less qualified for a presidency than someone with a degree in the sciences or arts and humanities? The data on current presidents suggests that perhaps it does not. Approximately 40% of all presidents have a

degree in education, while only 14% have a degree in the arts and humanities, and only 6% have a degree in the physical or biological sciences.

Does holding tenure and having a record of scholarship give a president certain advantages to effectively lead an institution? Is a former scholar more qualified to be a president than someone who has only worked in administration? Does a scholarly career offer insight into academic institutions that would not be present in someone who was never a scholar? While a scholarly career is usually the first step in the presidential trajectory, nearly 30% of all of the presidents in 1998 had never been a faculty member (Ross & Green, 2000). An additional 21% were only academics for a brief time, spending only one to five years as a full-time faculty member. These data indicate that half of all presidents did not have long scholarly careers.

Can a chief student affairs officer or other types of chief officers be effective presidents? While it is difficult to determine effectiveness, many presidents come from positions other than chief academic officer. Approximately 23% of all presidents were chief officers of units other than academic affairs immediately prior to their current position (Ross & Green, 2000).

The data on presidents and the evidence presented in this study suggest that senior administrators and presidents arrive at their positions with varying sets of experiences. If institutions wish to diversify the presidency, they should consider these findings and begin to question their assumptions about what it means to be qualified to be a president. This questioning of assumptions does not suggest that colleges and

universities should hire unqualified candidates. However, it does imply that perhaps colleges and universities may make assumptions about qualifications that have very little relationship with the effectiveness of a president.

Although this study did not seek to identify the qualifications required of college presidents, it did highlight the importance of thoughtful consideration of qualifications. Many of the assumptions about qualifications may in fact be establishing a glass ceiling for people of color and women. If colleges and universities begin to question their assumptions about the qualifications of potential presidents they are very likely to see an increase in the diversity of the presidency.

Future Research

This study also raises as many questions as it answers, suggesting several areas for future research. This study provided the first step in understanding the careers and career aspirations of senior administrators. Below are some questions that were raised during this study that could be addressed in future research.

What are the aspirations of graduate students, faculty and mid-level administrators? A study of individuals at every level in the pipeline to the presidency to understand their career aspirations and the factors that influence these aspirations would extend the findings in this study. Because this study focused on senior administrators, a study that provided an understanding of the early careers of faculty and administrators and the factors that influenced their aspirations would answer several questions that this study could not. Because of the leaking pipeline (as suggested by Trower and Chait,

2002), a study of this nature would be particularly useful in determining where the leaks are and how they can be stopped. At what point in their career do faculty and mid-level administrators begin considering senior administrative positions? Do mid-level women administrators and mid-level administrators of color have different aspirations than their White male counterparts? What role does the accumulation of social and cultural capital play in the development of mid-level administrator and faculty aspirations? Do mid-level administrators and faculty from under-represented groups experience discrimination and what affect does it have on career development?

How can the voices of minority and female senior administrators deepen the understanding of their experiences in higher education? While this study provided important information about the experiences of senior administrators, a qualitative study would allow the voices of under-represented groups to be heard. A qualitative study would illuminate the impact of the discrimination reported by respondents in this study.

A study of minority and women senior administrators who have expressed an interest in becoming a college president would be particularly helpful. Understanding how their aspirations were formed and the role that race has played would add to the richness of the findings of this study. What factors played a part in forming their desire to be a college president? How did they come to believe they were qualified to be a college president?

What are the experiences of women and people of color as they actively pursue a presidential position? This study provided some evidence to suggest that women and

people of color who were interviewed for a presidency were being hired at a lower rate than their White male counterparts. A qualitative study of those who are actively pursuing a presidency would answer several questions. What are the backgrounds of those who were, and those who were not, offered presidencies? What are their experiences as they apply and interview for presidencies?

What do search committees and search firms look for in a college president? On the other side of the presidential selection process are search firms and search committees. Few studies have been conducted on these groups, in particular to understand their processes and expectations of candidates. Do search committees and search firms unconsciously or consciously expect candidates to have accumulated a certain level of cultural and social capital? Do search committees and search firms incorporate structures that inadvertently exclude women and people of color? As alluded to earlier, do search firms weed out people of color and women who have an Ed.D. rather than a Ph.D.? Do they believe that chief student affairs officers do not make good presidents? An answer of yes to any of these questions would create a barrier to women and people of color who aspire to the presidency.

A case study of multiple campuses involved in a presidential search may be one way of answering these questions. Interviews of committee members prior to the search, several times during the search, and after the search has concluded would provide a better understanding members' expectations of the process, expectations of qualifications and perceptions of the process.

A similar study of a search firm would also enhance some of the findings of this study. If given access, a researcher might observe the role of a search firm through an entire presidential search process. Interviews of search consultants and potential candidates would enhance the current understanding of presidential searches.

What is the climate for women and minority senior administrators and how does it impact their aspirations? Numerous studies have been done to explore the climate for faculty and students, but few have been conducted to examine the climate in which administrators work. This study suggested a hostile climate for women and people of color as they navigated their careers. Perhaps a deeper understanding of this climate would guide colleges and universities in finding ways to create supportive environments for all administrators.

Who are the minority and women presidents, and how did they reach the college presidency? A study of current minority and women presidents would provide a great deal of insight into the qualifications, abilities and skills needed to succeed in an environment where these groups are under-represented. What challenges did they face as they moved up the ranks to senior leadership? How did they overcome those challenges? What did they do to succeed in the search process? What are the experiences of women administrators and administrators of color who have expressed an interest in being a college president? A qualitative follow-up to this study that examined the experiences of women and people of color who have expressed an interest in becoming a college president would add depth to the quantitative data.

What cultural constraints exist in higher education that perpetuate the stratification of senior administrative positions? The findings of this study suggest a powerful culture within higher education. The unspoken (and sometime spoken) rules of colleges and universities appeared to dictate who had access to senior positions. The administrators in this study had similar work experiences and similar levels of education. Most had broad networks of colleagues and reported high levels of cultural preferences. Beyond accumulated capital, senior administrators were mostly White men from families with high social status.

These results are suggestive of a culture that perpetuates racial, gender and economic stratification. Bourdieu (1977b) suggested that those in power create structures that allow them to reproduce social structures. This study provided evidence to suggest a culture that may limit the opportunities for people of color and women as they attempt to advance their careers. Perhaps the culture of higher education creates a structure of opportunity that constrains the ability of certain groups to accumulate capital. Additionally, these structures may create differential returns on administrators' investments in capital accumulation. While this study found evidence to support this conclusion, further study may provide insight into the role that institutional cultures, in particular dominant cultures, play in the careers of senior administrators.

A cultural piece that has gone unexplored is the idea that a candidate must look presidential. Birnbaum (1988, p. 497) suggested that once candidates have reached the final stage of the presidential search process, there are very little differences in their

qualifications. "In this final stage the candidates are all accomplished, and it is virtually impossible to comparatively assess their technical competence." So, the image they convey and their ability to "look like a president" become critical. What does a president look like? White men historically have dominated the presidency and currently represent 60% of all presidents (and senior administrators). Would it be a stretch to suggest the most common image of a president is a White male with gray hair? Does the culture of higher education expect a president who is a White male? This study did not provide concrete evidence to suggest that it does; however, the proportion of offers given to people of color and women suggests that it may. Further research is required to make a more definitive statement about the image expected of a college president.

An additional piece related to the dominant culture that warrants further study is the role that sexism and racism play in the careers of higher education administrators. Because there is evidence to suggest that discrimination has caused many to leave higher education (Jackson, 2001; Trower & Chait, 2002), perhaps a study of women and people of color who abandon careers in higher education would provide information to those who wish to diversify senior leadership. An understanding of the reasons for departure would be helpful in shaping useful policies related to diversity in the administration of higher education.

APPENDIX A

SURVEY INSTRUMENT

The Project on the Careers of Senior Administrators

This questionnaire is part of a study of the career histories and career plans of senior administrators and is endorsed by the American Association of State Colleges and Universities (AASCU). This is not a scannable form, so you do not need to fill in the bubbles. Please place either a CHECK or an X in the appropriate circles. Your responses to all of the questions are important, so please take the time to complete every item. Thank you for your participation.

CAREER HISTORY AND EDUCATION

1. Please indicate which of the	e following titles BEST describes your current position (select only one):
	O Chief Academic Officer (e.g., VP of Academic Affairs, Provost)
Dean-Arts & Colonson	O Chief Business Officer (e.g., VP of Finance)
₩ Dean-Busineer	O Chief Administrative Officer (e.g., VP of Administration)
Dean-Education	O Chief Development Officer (e.g., VP of Development/Advancement)
Oean-Engineering	O Chief Student Affairs Officer (e.g., VP of Student Affairs)
Dean-Fine Arts	O Chief Research Officer (e.g., VP of Research)
Dean-Graduate Programs	() Other (please specify)
O Dean-Nursing	() Other (presse special))
O Dean-Allied Health	
Dean-Humanities	
Death-riumanities	
O Dean-Math & Science	
 Dean-Social & Behavioral Science 	
2. Please describe the institution	ı where you are currently employed.
8. Carnegie Classification	
O Baccaloureate College (Liberal Arts or General)
O Master's (Comprehensiv	a) College or University
(1) Doube and (Donounelle College	an an I inharcity
Doctoral/Research Colle	eadcount enrollment (total undergraduate and graduate).
Approximate student ne	○ 6,000 - 7,999 ○ 12,000 - 14,999
O Less than 2,000	08,000 - 9,999 0 15,000 - 19,999
O 2,000 - 3,999	
O 4,000 - 5,999	O 10,000 – 11,999 O 20,000 or more
c. Region	A. NH. RI . VT) O Plains (IA, KS, MN, MO, NE, ND, SD)
O New England (CT, ME, M/	THE WALL OF THE PARTY OF THE SEC SEC. THE SEC SEC.
O Mid East (DE, DC, MD, N)	A STATE OF THE PARTY AND AND THE TOP
O Great Lakes (IL, IN, MI, C	AND THE PARTY OF T
O Rocky Mountains (CO, ID,	MT, UT, WY) () FOR WEST (MA, CA) TIM, 144, OA, 44A)
3. How many was been been as a	in your current position at your current institution?
	O 10-12 O 13-15 O 16+
O Less than 4 0 4-6 0 7-9	(3 10 4
4. Please indicate the number of year	ers you have served in any of the following position. Please do not include
your current position at your curr	ent insutudon.
	None 1-3
a. Full-time faculty	0 0 0 0 0
b. Department chair	0 0 0 0
C. Associate/Assistant Dean	5 5 0 0 0 0
d. Dean	0 0 0 0 0
G. Ocan	
e. Associate/Assistant Vice Preside	
A Con Providence Challed and Indiana State	0 0 0 0 0 0
 Vice President of Administration 	0 0 0 0
9. Vice President of Finance	0 0 0 0 0 0
h. Vice President of Student Affairs	
 Vice President of Academic Affair 	0 0 0 0 0
Vice Drovident of Desearch	The state of the s
k. Vice President of Development/A	COMPANY
- College President	0.0000000000000000000000000000000000000
m. Other Higher Education Administra	tion O O O O O
To any and a second a second and a second and a second and a second and a second an	what was the highest rank you buttered?
you were a full-time faculty member	O Associate professor O Professor O Never a full-time faculty member
O Lecturer O Assistant professor	O Paparania I
Have you ever earned tenure?	O YES O NO
rigre you ever earned tenurer	-

7.	In the two sets of ovals shown below, re the accompanying cover letter.	nark the most approp	rlate code fro	m the	fields I	isted on i	he back of
	Major of highest degree held:	Department of most	recent faculty	appo	intmen	(If held	faculty appt.):
	00						
			00				
	00		00				
	© ©		(1) (1)				
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	00		99				
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	O O		00				
	(3) (5)		(3) (3)				
	99		99				
8.	Mark the highest degree you have earn	ed. (Mark only one)					
0	None	O Other 1st professiona	degree beyon	d B.A.	(e.g., D.i	D., D.V.M)	
		O Ph.D.					
	The state of the s	O Ed.D.					
	LL.B., J.D.	Other (please specify)	Majo			
	M.D., D.D.S (or equivalent)						
9.	What is your base salary from this institute nearest thousand.	tution for the current	year? (Write	in the	e dollar	amount	rounded to
	a. Is this based on a contract of	O 9/10 months	O 11/12 mc	onths			
10	. In terms of undergraduate admissions	standards, how select	tive are the fo	llowin	ıg?		
			Open	Less		Ve	
		and you of simulation at a side of the second	Admissions				
	a. The institution where you earned you	nuneral sonate dedice					
	 The institution where you earned you The institution where you worked print 	Jr nignest degree	0	0	C		
	d. The institution where you are curren	by employed	O O	0	C		
	,						
		CAREER PLAN	(5)				
11	I would like my next Job to be (plear Similar to my current position Position at a higher level than my College presidency Faculty Retirement Other (please specify)	y current position (other		preside	ncy)		
13	2. I would like my next job to be at a (olease select one insti	tution type)				
	O Two-year college	 State education age 		O Outsi	de hiahe	er educatio	n
		O Federal education a	agency	OOther	r (please	specify) _	
	O Comprehensive college/university	O Private sector train	ing	ONot a	pplicable	Q	
	O Liberal arts college	 Foundation 					
	 Higher education agency/organization 	O For-profit education	n organization				
1.	3. I would like my next job to be at a (please select one sect	or type)				
	O Public institution						
	O Private Institution						
	O Not applicable						
1	4. In the past 2 years how many times ha	ave the following occu				3 OR	
	and the state of t		NONE	0	2	MORE	The state of the s
	a. I applied for a college presidency.	dana	CONT.		Q	0	THE PERSON NAMED IN
	 b. I was nominated for a college presing. c. I turned down an offer to interview. 	Cency.	0	0	0		the Set wollies
	d. I was interviewed for a college pres	sidency contacts litraspecitly	O CONTRACTOR	O	0	0	THE PROPERTY OF THE PARTY OF TH
	e. I was interviewed for a college presidency.	in is	ansar di	0,	0	و و	The second second
	f. I turned down an offer to be a colle	ege president	O	O	0	0	
	1. I tuitied dutilit dis dires of he a cons	office by construction	4	-	40	-44	

the same with the fall	ing statements:				
15. Please indicate the degree to which you agree with the following	O44	STRONGL			STRONGLY
	4.5 0.47574.8	AGREE	AGREE	DISAGRE	E DISAGREE
a. It is likely that I will make a job change in the next two years.	. 11. 17.74	5		3	" O
 b. I currently have someone who I consider to be a mentor. 	G 1.4.	0	0	.0	
c. I enjoy going to museums or art exhibits.	4	Ö	O		. 0
d. One day, I would like to be a college president.	his statement water Village		-	0	0
a. I would not be died ablantiquidagement activities that are part of	tie hiesingungi loit	9	, v	: 0	43
f. In my academic career, I have been discriminated against because of	of my race/ethnicity	4.0	0	0	()
g. I have colleagues I can rely on for professional advice.	NAME OF THE OWNER, THE	Ø	0	0	· (O)
h. I have the necessary professional "connections" it takes to become a	pllege president.	0	O	0	0
h. I have the necessary professional "connections" it takes to become a	my tiender a side	300%	0:	. 0.	9
t. My opportunities for career advancement have been limited because	OWNER STORY	O CONTRACTOR OF THE PARTY OF TH	9	Ö	Ö
I am qualified to be a college president.	30%	100	° 0.	10	
k. 1 enjoy attending intellectual lectures/speeches.	s heen an accet	167	٥.	1948	0
I. The reputation of the institution where I earned my highest degree in	19 ocen an paser	C			and.
when I apply for jobs in higher education.	And the latest the lat	9	0	Cı	0
m. A mentor has taken a personal interest in my career.	1 1 100	0	0	0	.0
n. I have had the necessary career experiences to be a college presider	nt	, O	.)	0	0
o. My opportunities for career advancement have been limited because	my race/ethnicity.	o o	0.	O.	0
p. I have had several mentors throughout my career.		Ö	0 "	· ó	0
q. Lenjoy attending the symphony.	8	Q.	0	Ø:	· O.
r. My next position is likely to be a college presidency.	y	0	O	0	O
s. My professional network is small with only a few very close colleague	oci	0:	D.	. 0	0 .:
t. The busy schedule of college presidents makes the job less desirable	.o me.	O	0	.: (7)	
	Bould to Brown A dill	-	-	-	O 24.
u. I never want to be a college president.	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		0		O
v. The reputation of the institution where I currently work is an asset if	apply for another				
	1-1-101 101 011001101	0		e de	-
position in higher education.	- British Hamma		0	0	0
w. Most college presidents have too little influence over their institution	2 de octament pi oft sti		9	O.	1 P
x. I have a broad network of professional relationships.	want of house he and of any	0	0	0	0
v. The reputation of the institution where I earned my undergraduate d		Am. 4	15.15		
asset when I apply for jobs in higher education.		0	0	Ö	, 0
z. I enjoy going to the theater.		0	3	0)
aa. College presidents have the power to make significant contributions	(5 Camputa life,	0	9	D	Q:
bb. College presidents must have a broad network of connections to be	Juccessful.	2	0	0	')
cc. Lenjoy reading books for pleasure.	- 18 8 C	O.	0	.0	. 0
dd. In my academic career, I have been discriminated against because of		0	· 5	Q.	(m .
ee. The need to spend time with politicians makes the college presidence		0	Q	0	0
ff. A mentor has played a significant role in helping my career advancer		O	O	0	
99. It is important to me to volunteer in my community	A	98	. 8		()
hh. My professional networks have been helpful in my career success.	, = 0			0,	7):
and the same of th		0	()	2	3
16. Please indicate how often you have experienced the followin		ears; OCCASIO	NALLY	NEVI	E D
a. I encountered discrimination based on my race/ethnicity.	7 O	C		NEVI	3
b. I encountered discrimination based on my gender.	Ö	0		Ģ	\$
c. A colleague has told me about job openings.	A DOMESTIC				
d. I phoned a colleague for professional advice.	O	C	4,5	0	**
e. A mentor has provided information and advice.	· \$200.400	6 APRASSITA	r	0	,
f. A colleague has told me that I would make a good college president.	110		4	0	9
The state of the s	O	0	,	()	

PROFESSIONAL ACTIVITIES

17. Indicate how many of following awards you have received.		
	NONE 1-3	4-6 7+
a. Membership in an undergraduate honorary society (e.g., Phi Beta Kappa, Omicron Delta Kapp	a/etc) O O	0 0
b. Membership in a national societies of distinguished scholars (e.g., National Academy of Scien		
National Academy of Engineering, American Academy of Arts and Sciences, etc.)	0 3	. 9 9
c, Award for research from a professional or scholarly organization	0 0	0 0
d. Honorary degree	0)	0 0
e. Research fellowship from a national organization	. 00.70	CONTRACT
18. Indicate how many times you have participated in any of the following activities	es.	
	NONE 1-3	4-6 7+
a. Performed paid external consulting	0 0	(A)
 Received an administrative fellowship (e.g., American Council on Education Fellowship/Internship) 		- 1
W.K. Kellogg Leadership Program)	Q Q	့္က ့
c. Attended a higher education management institute (e.g., Harvard, Bryn Mawr)	100 min 0	0 0
d. Served on the board of directors of state or regional professional organization e. Served on the board of directors of national professional organization	9 0	
f. Served on the board of directors for a scholarly organization	0 0	ેં ડે
g. Served on the board of directors for a business or civic organization	0 0	
h. Attended a professional workshop for women (e.g., AACC, NAWE, NASPA)	o o	ÖÖ
i. Attended a professional workshop for minorities (e.g., Millennium Leadership Initiative)		0 0
). Presented a paper/lecture at national, state, or regional conferences	0 0	5 0
19. During your career, approximately how many of the following have you publish		
a. Articles in academic or professional journals 0 0 0	11-20 21+	- CO. 4
	0 0	
c. Books, manuals, or monographs		,
PERSONAL ITEMS		
PERSONAL ITEMS		
20. What is your racial/ethnic group? (Mark all that apply)		
White/Caucasian Mexican American/C	hicano/a	
() African American/Black () Puerto Rican Americ	an	
) American Indian O Other Latino/a (plea	ise specify)	
O Asian/Pacific American (please specify) Other (please speci	fy)	annance / populario
21. What is your gender? O Female O Male		
22. What is your current marital status? O Married O Unmarried, Ilving with partner	() Single	
23. Does your partner/spouse work in higher education? O YES O NO		
24. How many children do you have who live at home? O 0 O 1 O 2 O 3 O	4+	
	,	
25. Please indicate your year of birth.		
26. What is the highest level of education that your parents and partner/spouse h	ave completed? (Indicate one
per column)	•	
Father Mother Pa	artner/Spouse	
b. Completed high school	0	
c. Some college	Ø.	
d. Completed bachelor's degree OOO	. O	
e. Some graduate/professional school	(A)	
	-	
27. When you were in high school, what were your parents' occupations? (Please	be as specific as	possible)
a. Father's occupation		
** ** * * **		

b. Mother's occupation______
Thank you for completing the questionnaire!

APPENDIX B INFORMED CONSENT FORM

INFORMED CONSENT FORM The Careers of Senior Administrators

Statement of Age: I state that I am over 18 years of age, in good physical health, and wish

to participate in a program of research being conducted by Paul D. Umbach in the Department of Education Policy and Leadership (EDPL) at the University of Maryland, College Park, Maryland 20742.

Purpose: The purpose of this research is to examine the careers and career plans

of senior administrators at state colleges and universities. The enclosed survey is intended to elicit your responses on a variety of questions related to your career path, career aspirations, and background. The survey will take approximately fifteen minutes to complete the survey.

Procedures: I understand that the procedures of this study involve completing a

survey.

Confidentiality: All information collected in this study is confidential and my name

will not be identified at any time. The data I provide will be grouped

with data others provide for reporting and presentation.

Risks: I understand that there are no known risks for me if I participate in this

project.

Benefits: I understand that the study is not designed to help me personally.

Freedom to Withdraw &

Ask Questions: I understand that I am free to ask questions and to withdraw from the

study at any time.

Giving Informed

Consent: I understand that by completing and returning the enclosed survey, I

agree with the above statements and give informed consent.

If you have any questions or concerns regarding this study, please contact Paul D. Umbach. If you have questions concerning your rights as a participant, please contact Robert G. Croninger.

Paul D. Umbach Robert G. Croninger

Doctoral Candidate EDPL Human Subjects Committee

University of Maryland
2110 Benjamin Building
College Park, MD 20740
Phone: 301/405-1514
University of Maryland
2110 Benjamin Building
College Park, MD 20740
Phone: 301/405-2927

email: umbach@wam.umd.edu email: rc164@umail.umd.edu

APPENDIX C CORRESPONDENCE

T	**	
First	Ema	пI

Dr./	Ms./	Mr.	

I am emailing you to ask for your participation in The Project on the Careers of Senior Administrators. This important research study is endorsed by the American Association of State Colleges and Universities (AASCU) and examines the careers and career plans of senior college administrators at state colleges and universities. The results of this study will have national significance in improving the quality of professional development programming and increasing access to senior leadership positions in colleges and universities. Your participation in this project is very important. By completing the questionnaire at the website listed below, you will provide information that will help contribute to the understanding of administrative careers, career plans, and aspirations to be a college president.

The questionnaire is designed to take approximately 15 minutes to complete. Every step has been taken in the design and implementation of the questionnaire to maintain your anonymity and provide security for your results. In no way can your responses be linked to you or your institution.

The questionnaire website is as follows: http://www.education.umd.edu/Depts/EDPA/umbach/

To enter the secure website you will need to enter a userid and password.

Userid: survey Password: 2001

Thank you for your assistance in this important project. If you have any questions, concerns or would like to be removed from the list for future mail or email reminders regarding the study, please contact me via email at umbach@wam.umd.edu or call me at (301) 405-1514.

Regards,
Paul D. Umbach
Doctoral Candidate
University of Maryland
2110 Benjamin Building
College Park, MD 20742

Second Email

Dr.	Ms.	Mr.	

Recently, you received an email request to participate in the Project on the Careers of Senior Administrators, an important research study endorsed by the American Association of State Colleges and Universities (AASCU). If you already participated by completing the questionnaire, please accept my sincere thanks and my apologies for the reminder email. You may have your name removed from the list of future email and mail reminders by emailing me at umbach@wam.umd.edu.

If you have not completed the questionnaire, will you please take 15 minutes to complete it?

The questionnaire website is as follows: http://www.education.umd.edu/Depts/EDPA/umbach/

To enter the secure website you will need to enter a userid and password.

Userid: survey Password: 2001

Your participation in this project is very important. The results of this study will have national significance in improving the quality of professional development programming and increasing access to senior leadership positions in colleges and universities. By completing the questionnaire at the website listed below, you will provide information that will help contribute to the understanding of administrative careers, career plans, and aspirations to be a college president.

Thank you for your assistance in this important project. If you have any questions, concerns or would like to be removed from the list for future mail or email reminders regarding the study, please contact me via email at umbach@wam.umd.edu or call me at (301) 405-1514.

Regards,
Paul D. Umbach
Doctoral Candidate
University of Maryland
2110 Benjamin Building
College Park, MD 20742

Third Email

Dr./Ms./Mr.	
-------------	--

In the past several weeks you have received two emails requesting your participation in the Project on the Careers of Senior Administrators. If you already participated by completing the questionnaire, please accept my sincere thanks and my apologies for the reminder email. There is no need for you to complete the survey again. You may have your name removed from the list of future email and mail reminders by emailing me at umbach@wam.umd.edu.

If you have not completed the questionnaire, will you please take 15 minutes to complete it? Your participation in this project is very important to the success of the project and my dissertation research.

The questionnaire website is as follows: http://www.education.umd.edu/Depts/EDPA/umbach/

To enter the secure website you will need to enter a userid and password.

Userid: survey Password: 2001

Thank you for your assistance in this important project. If you have any questions, concerns or would like to be removed from the list for future mail or email reminders regarding the study, please contact me via email at umbach@wam.umd.edu or call me at (301) 405-1514.

Regards,
Paul D. Umbach
Doctoral Candidate
University of Maryland
2110 Benjamin Building
College Park, MD 20742

Survey Mailing - Cover Letter

December 3, 2001

Name Institution Street City, State Zip

Title Name:

Over the last few weeks you may have received several emails requesting your participation in the Project on the Careers of Senior Administrators. This letter and enclosed questionnaire are being sent to you because I could not reach via email or because you may wish to complete a paper version. If you prefer to complete the electronic version of the questionnaire rather than the enclosed paper version, you may do so by going to the following web site:

http://www.education.umd.edu/Depts/EDPA/umbach/

If you have already completed the questionnaire, please ignore this letter and accept my sincere thanks. I greatly appreciate you taking time out of your busy schedule to help me with my research. If you have not responded, would you please consider doing so now?

Your participation in this project is extremely important. The study, which has been endorsed by the *American Association of State Colleges and Universities (AASCU)*, examines the careers and career plans of senior college administrators at state colleges and universities. The results of this study will have national significance in improving the quality of professional development programming and increasing access to senior leadership positions in colleges and universities. By completing the enclosed questionnaire, you will provide information that will help contribute to the understanding of administrative careers, career plans, and aspirations to be a college president.

The questionnaire is designed to take approximately 15 minutes to complete. Every step has been taken in the design and implementation of the questionnaire to maintain your anonymity. In no way can your responses be linked to you or your institution. Before beginning the questionnaire, please take a few moments to read the enclosed informed consent form. When you have completed the questionnaire, return it in the enclosed postage-paid, pre-addressed envelope.

Thank you for your assistance in this important project. I will contact you when the results of the study are available on the web. In the meantime, if you have any questions regarding the study, please contact me by email at umbach@wam.umd.edu or by phone at (301) 405-1514.

Regards,
Paul D. Umbach
Doctoral Candidate
University of Maryland, College Park

Codes for Major Fields of Study and Academic Disciplines

01 AGRICULTURE

02 ARCHITECTURE/URBAN PLANNING

ARTS

- Art
- Dramatics/Speech 04
- 05 Music
- Other Fine Arts BUSINESS
- Accounting
- Finance
- 09 International Business
- 10 Marketing
- Management
- 12 Secretarial Studies
- 13 General/Other Business
- 14 COMMUNICATIONS

15 COMPUTER SCIENCE

EDUCATION

- 16 Business Education
- Elementary Education
- 18 Educational Administration
- Education Psychology/Counseling 19
- 20 Higher Education
- Music/Art Education
- Phys/Health Education
- Secondary Education
- 24 Special Education
- 25 General/Other Education **ENGINEERING**

- 26 Aeronautical/Astronautical Engineering
- Chemical Engineering
- 28 Civil Engineering
- 29 Electrical Engineering
- 30 Industrial Engineering
- Mechanical Engineering 31
- Nuclear Engineering
- General/Other Engineering

ENGLISH AND FOREIGN LANGUAGES

- 34 English Language/Literature
- 35 Foreign Languages/Literature
- 36 French
- 37 German
- 38 Spanish
- Other Foreign Language
- 40 ETHNIC STUDIES
- 41 FORESTRY
- 42 GEOGRAPHY

HEALTH SCIENCES

- Dentistry
- Health Technology
- 45 Medicine/Surgery
- 46 Nursing
- 47 Pharmacy/Pharmacology
- Therapy (Physical, Speech, Occupational) 48
- Veterinary Medicine
- 50 General/Other Health Fields

51 HOME ECONOMICS

HUMANITIES

- 52 History
- Linguistics
- 54 Philosophy
- 55 Religion/Theology
- 56 General/Other Humanities

57 JOURNALISM

- 58 LAW
- LAW ENFORCEMENT
- 60 LIBRARY SCIENCE
- 61 MATHEMATICS/STATISTICS
- 62 MILITARY SCIENCE

NATURAL SCIENCES: BIOLOGICAL **SCIENCES**

- Bacteriology/Molecular Biology
- Biochemistry
- 65 Biophysics
- Botany
- 67 Marine Life Sciences
- 68 Physiology/Anatomy
- Zoology
- 70 General/Other Biological Sciences

NATURAL SCIENCES: PHYSICAL SCIENCES

- Astronomy
- Atmospheric Sciences
- 73 Chemistry
- 74 Earth Sciences
- 75 Marine Sciences
- 76 Physics
- 77 General/Other Physical Sciences

PSYCHOLOGY

- Clinical Psychology
- Counseling/Guidance
- Experimental Psychology
- Social Psychology
- General/Other Psychology 82

SOCIAL SCIENCES

- 83 Anthropology
- Archaeoogy 84
- 85 Economics
- 86 Political Science/Government
- Sociology
- Social Work/Social Welfare
- General/Other Social Sciences

VOCATIONAL AND TECHNICAL TRAINING

- Building Trades
- 91 Data Processing
- Drafting/Design 92
- 93 Electronics 94 Industrial Arts
- 95 Mechanics
- Other Technical
- Other Vocational
- WOMEN'S STUDIES

99 ALL OTHER FIELDS

APPENDIX D CORRELATION MATRIX OF VARIABLES IN THE REGRESSION MODELS

	DSPURE DOTHER	DOTHER	CBUS	CDEV	CRES	CSTUDA	COTHER	CSTUDA COTHER NETWORK ACTIVIT	CTIVIT A	AWARD MPURE	l	MHAPP MS	MSAPP MO	MOTHER SEL	SELECT PREFS	S SCHOLAR	DISC	DISC*F DIS	DISC*AF DISC*LT
dav			1								ı	l							
Arr																			
NOMIN																			
NJOB																			
AFAM																			
LAT																			
OTHER																			
FEM																			
AGE																			
AGE2																			
PART																			
F*PART																			
SES																			
EDD																			
PROFI																			
ONEG																			
DATH																			
Tat. Jan.																			
DHAPP																			
DSAPP																			
DSPURE																			
DOTHER	-0.048																		
CBUS	-0.160	-0.045																	
CDEV	-0.129	-0.037	0.121																
CRES	-0.054	-0.015	-0.050	-0.041															
CSTUDA	-0.164	-0.047	-0.153	-0.124	-0.052														
COTHER	-0.051	-0.014	-0.047	-0.038	-0.016	-0.049													
homean	-0.042	0.024	-0.074	0.035	-0.053		0.020												
ACTIVIT	-0.027	-0.003	-0.264	-0.097	0.040	910.0	-0.037	0.194											
AWARU	0.101	900.0-	-0.276	-0.124	0.075		-0.004	0.102	0.418										
MSPURE	0.390	0.011	-0.133	0.014	-0.016		0.027	-0.086	-0.049	0.031									
MH	-0.103	0.011	-0.081	-0.058	0.004	€106	-0.012	-0.013	0.116	0.172	-0.165								
MSAPP	-0.289	0.007	0.236	0.036	-0.076	0.244	-0.034	0.133	0.012	-0.171	-0.637	-0.275							
MOTHER	90.00	0.003	-0.014	0.090	ניטט מ.		0.001	970.0-	0.010	0.004	-0.126	-0.055	-0.211						
SELECT	0.068	0.018	-0.191	-0.077	0.018		0.015	0.020	F51 0	0.193	690.0	0.102	-0.137	-0.015					
PREFS	0.226	0.032	-0.191	-0.048	-0.007	-0.076	0.010	0.150	961.0	0.174	0.142	-0.049	-0.118	-0.011	0.170				
SCHOLAR	0.276	-0.002	-0.455	-0.348	0.078	-0.438	0.008	-0.062	0.308	0.410	0.183	6133	-0.395	-0.050	0.254 0.2	0.227			
DISC	-0.015	0.034	-0.108	-0.029	-0.009	0.131	9000	0.108	0.218	0.122	-0.022	4.010	0.095	0.017	0.059 0.073	73 -0.016			
DISC*F	950.0-	0.007	-0.076	-0.016	-0.022	0 078	0.009	4.889	0.166	0.108	-0.045	وتوين	0.047	0.046	0.054 0.1	0.119 -0.016	0.632		
DISC*AF	-0.035	0.041	-0.026	-0.032	0.012	0.079	0.001	0.089	0.144	0.087	-0.071	6.012	0.073	0.053	0.036 0.023	23 -0.050	0.436	6.409	
DISC*LT	0.056		-0.044	-0.019	-0.002	0.012	-0.010	0. (MA	0.103	0.070	0.042	AD 0.25	910.0-	910.0-	0.004 0.012	12 0.045	0.181	0.149	-0.016
DISC*OTH	-0.014	0100	6000	-0.011	0.001	0.026	0.003	-0.01	0.029	-0.009	-0.033	4.013	60000	900.0	0.050 -0.001	700,007	0.228	0.078	-0.017 -0.007

							CHINE	2571	AGE	AGE2	TGAG	TOPIDI	SES	FDD	PROFI. C	ODEG	DATH DR	DHPI'RE DE	DHAPP D	DSAPP
E	EXPECT	AFF	NO STEEL	STOR	AFAM	LA!	OTHER	FEM	MAL	1	١	LUNI	240		l		ı	l		
APP	0.419																			
NOMIN	0.458	0.422																		
NJOB	165'0	0.448	0.384																	
AFAM	0.121	0.015	0.087	0.045																
LAT	0.019	0.000	0.064	0.00	-0.047															
OTHER	0.031	0.026	-0.004	0.054	-0.042	-0.023														
FEM	-0.100	-0.073	-0.005	-0.063	0.063	0.016	-0.045													
AGE	910.0-	0.035	0.095	-0.049	-0.024	-0.051	-0.020	-0 116												
AGE2	-0.010	-0.076	-0.054	-0.021	0.032	0.037	0.025	-0.015	-0.273											
PART	0.041	0.019	0.029	0.037	-0.141	900 0-	0.018	-0.286	0.034	-0.075										
F*PART	-0.058	-0.056	0.009	-0.035	0.000	0.013	-0.031	0.797	-0.107	-0.034	0.209									
SES	-0.022	0.009	-0.032	-0.033	-0.156	-0.007	-0.017	0.103	-0.116	0.075	0.029	901.0								
EDD	0.093	0.010	0.062	0.040	0.067	160.0-	-0.007	0.072	910.0-	0.012	-0.033	0.072	-0.042							
PROFL	900.0	0.037	0.072	0.049	0.029	810.0	910.0	0.012	-0.059	0.018	0.012	0.023	0.028	-0.046						
ODEG	-0.327	-0.134	-0.199	-0.149	-0.037	0.002	-0.044	-0.001	-0.218	0.102	-0.018	-0.005	-0.031	-0.218	-0.060					
PATH	0.291	0.169	0.264	0.177	0.026	-0.023	0.018	-0.042	0.265	-0,138	0.019	0.030	-0.006	-0.020	-0.074	0.441				
DHPURE	950.0-	510.0-	-0.058	-0.057	-0.025	600'0	0.040	-0.071	0.103	620.0-	0.034	-0.045	800.0	-0.029	-0.023	-0.100	0.015			
DHAPP	-0.023	-0.002	-0.055	-0.021	0.012	-0.004	0.023	0.118	0.062	-0.012	-0.066	0.057	0.000	-0.032	-0.013	-0.077	0.037	-0.060		
DSAPP	0.033	-0.082	-0.044	-0.057	-0.022	0.004	900.0	650.0-	0.074	-0.018	110.0	-0.014	-0.047	0.169	0.019	-0.198	0.053	-0.082	-0.121	
DSPURE	-0.010	-0.039	-0.026	-0.082	-0.025	0.024	800'0-	-0.013	0.048	-0.030	0.016	-0.004	0.053	-0.144	-0.030	-0.148	690.0	-0.084	-0.123	-0.167
DOTHER	-0.091	-0.039	150.0-	-0.049	0.024	-0.019	-0.017	0.120	-0.027	-0.019	0.031	0.159	0.061	0.013	-0.013	-0.024	-0.013	-0.024	-0.035	-0.047
CBUS	-0.167	-0.044	-0.111	-0.067	-0.047	-0.026	-0.015	-0.103	-0.115	800'0	0.031	-0.083	-0.104	-0.074	0.056	0.470	-0.289	-0.078	-0.115	-0.157
CDEV	-0.040	-0.011	-0.048	0.011	-0.029	800.0-	-0.013	0.005	-0.160	0.130	-0.027	-0.023	0.073	-0.048	0.063	0.333	-0.326	-0.064	-0.093	-0.127
CRES	900.0	-0.044	-0.014	-0.054	0.015	0.010	0.016	-0.044	-0.024	0.000	0.024	-0.033	0.028	-0.013	-0.015	-0.058	0.055	-0.026	60.03	-0.053
CSTUDA	0.001	-0.061	-0.024	0.014	0.108	0.018	0.008	0.057	-0.147	0.069	890.0-	510.0	-0.014	0.152	-0.044	0.041	-0.120	-0.080	-0.118	-0.160
COTHER	-0.010	0.027	900'0-	-0.007	-0.017	-0.020	0.019	-0.003	0.013	0,040	-0.011	-0.015	0.012	-0.006	0.033	-0.038	0.025	-0.025	-0.037	0.050
NETWORK	0.234	0.049	0.071	0.106	0.075	-0.014	-0.002	0.155	-0.167	0.068	-0.057	0.123	0.045	0.107	-0.026	0.000	-0.005	-0.051	-0.037	0.004
ACTIVIT	0.322	0.117	0.244	0.093	0.107	0.068	-0.002	0.117	0.144	-0.111	8v:0.0-	0.078	0.011	0.116	-0.049	-0.258	0.242	-0.067	0.118	0.179
AWARD	0.277	0.124	0.201	0.070	0.093	0.033	-0.005	0.024	0.141	-0.058	60000	0.021	0.011	-0.027	-0.036	-0.316	0.275	0.014	0.137	0.081
MSPURE	0.035	0.055	0.059	0.014	-0.071	0.053	-0.028	-0.029	690'0	-0.038	0.041	-0.003	0.059	-0.229	-0.069	-0.053	0.121	-0.111	-0.149	-0.103
MHAPP	0.039	0.075	0.007	0.015	-0.015	-0.027	0.015	0.018	0.041	-0.002	500.0	0.004	900.0-	-0.08B	-0.007	-0.053	0.055	0.009	0.563	080.0-
MSAPP	-0.025	-0.045	-0.051	0.017	0.078	-0.029	-0.004	0.088	-0.169	0.055	-0.084	0.050	-0.059	0.330	0.075	0.160	-0.199	-0.165	-0.113	0.219
MOTHER	-0.048	-0.037	-0.029	-0.040	0.055	-0.033	0.016	0.023	0.001	600:0-	-0.001	0.015	900'0	-0.021	0.034	0.043	-0.063	-0.025	-0.003	-0.028
SELECT	0.166	0.086	0.119	0.078	0.021	0.015	0.048	€00.0	0.101	-0.025	\$10.0	0.007	0.031	-0.036	0.014	-0.240	0.179	0.013	0.109	0.052
PREFS	0.175	0.058	0.136	0.040	-0.049	0.003	-0.034	0.208	0.128	-0.059	-0.069	0.165	0.086	0.001	-0.013	-0.178	0.193	-0.030	-0.037	-0.021
SCHOLAR	9070	0.095	0.162	0.065	-0.054	0.008	0.031	-0.049	0.326	-0.148	0.072	-0.007	0.040	-0.086	-0.066	-0.588	0.590	0.157	0.203	0.247
DISC	0.162	0.035	0.112	0.067	0.306	0.092	0.137	0.356	-0.082	-0.038	-0.125	0.271	610.0-	0.078	9000	-0.060	0.046	-0.078	0.035	-0.016
DISC*F	990'0	-0.023	0.087	-0.003	0.241	0.050	0.031	0.423	-0.020	-0.033	-0.147	0.316	0.015	0.043	0.054	-0.063	0.000	-0.021	0.040	-0.022
DISC*AF	0.092	0.002	0.075	0.018	0.672	-0.032	-0.028	0.137	-0.034	-0.003	-0.119	0.058	-0.064	690'0	0.052	-0.028	0.012	-0.037	0.016	0.000
DISC*LT	0.040	-0.007	0.031	-0.002	-0.023	0.498	-0.011	0.052	0.007	-0.047	-0.030	0.027	0.010	0.004	-0.040	-0.044	600.0	920.0-	0.022	-0.005
DISC*OTH	0.0.0	0.073	0.00	0.077	-0.025	-0.013	0.593	0.000	0.017	\$10.0-	1000	-0 003	-0.030	0.029	600.0-	-0 635	0.014	0.043	2000	

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