AN EXAMINATION OF THE EFFECTS OF MENTORING ON SOCIAL AND INSTITUTIONAL ISOLATION

by

Janice Witt Smith

Dissertation submitted to the Faculty of the

Virginia Polytechnic Institute and State University

in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

in

Organization Studies

APPROVED:

_________________________
Dr. Robert M. Madigan, Co-Chair

_________________________
Dr. Steven E. Markham, Co-Chair

_________________________
Dr. Toni Calasanti

_________________________
Dr. Roseanne J. Foti

_________________________
Dr. Sigrid Gustafson

April 4, 1995

Blacksburg, Virginia

Key words: Mentoring, Isolation, Race, Gender, Faculty, Context
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Janice Witt Smith

Dr. Robert M. Madigan, Co-Chair
Dr. Steven E. Markham, Co-Chair

Department of Management

(ABSTRACT)

This dissertation examines some of the more subjective aspects of individuals' experiences of isolation within the context of racialized and gendered work organizations. This research develops two constructs—institutional and social isolation—and attempts to ascertain the extent to which racial and gender groups experience isolation similarly. Other attitudes, such as intent to turnover, affective commitment, and alienation, are analyzed with respect to feelings of isolation for these groups. Finally, because current thinking has advocated the use of organizational interventions, such as mentoring programs, to ameliorate individuals' feelings of separateness within the organization, the relationship of mentoring to the aforementioned constructs was examined for its usefulness in understanding similarities and differences between these groups.

This research extends previous work by providing support for new conceptualizations of social isolation and isolation. It extends work done by Nkomo and Cox (1990) and others who found that individuals who had achieved some objective measures of success in organizations, still did not feel, subjectively, as if they were a part of the organization.
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Thus, the use of these isolation constructs will expand our knowledge of organizational processes in examining groups based on gender and race/ethnicity.

The results indicate that isolation does exist on two dimensions: institutional isolation and social isolation. Asian-Americans have higher levels of institutional isolation, and African-Americans have higher levels of social isolation than any other group. Females experience higher levels of social isolation—but not institutional isolation—than males. There are some differences when race and gender are examined simultaneously in levels of experienced institutional and social isolation. Younger faculty feel more institutionally and socially isolated than older faculty. There is no significant effect of the presence of mentoring on institutional or social isolation; nor is there differential access to mentoring relationships by race. However, females enter mentoring relationships in greater proportions than males. There are also effects from cross-racial mentoring relationships. Finally, there are no significant differences, by race or gender, in the levels of affective organizational commitment or intent to turnover.
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DEDICATION

For the love, patience, understanding, and tolerance that you have shown not only during my graduate studies, but all of my life (and our lives together), I dedicate this document to Jesus Christ, my Lord and Savior; my husband, Bill Smith; daughter, Janelle; son, Justin; parents, Leroy R., Sr. and Helen (Mundy) Witt; sisters and brothers-in-law: Judi and Melvin Fowlkes; Beverly and Charles Branch; Peggy and E.L. James; brother and sister-in-law, Leroy, Jr., and Gloria Witt; nieces, Ambria Witt, Altra Witt and Alison Branch; nephews, Michael and Benjamin James; and to my best friend forever and a day, Peggy Wooding, whose sense of humor and encouragement kept me reasonably sane.
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ACKNOWLEDGEMENTS

The joy and relief I feel in having completed this document cannot be adequately expressed in mere words. Although mere words of thanks for my committee cannot express the depth of my emotions, I do recognize and acknowledge their assistance, guidance, patience, and understanding. First, I owe a great debt to my co-chairs, Dr. Robert M. Madigan and Dr. Steven E. Markham, whose contributions to this document and my development as an academic were crucial. We did not always agree on issues relative to content and process, but we did agree that my successful matriculation through this process was our goal. Because my topic was outside the “normal” realm of management theory, we all had a huge learning curve associated with this process. Deep appreciation goes to them both, for their sensitivity, caring, and guidance. I learned a great deal from Bob in terms of theory building and developing logical arguments. Bob constantly challenged me to “say it” parsimoniously. He also spent hours carefully reading each draft of the dissertation to make sure that I addressed all of the necessary issues and elements. He did not expect more from than he expected from himself. Bob’s ability to see through the conceptual fog and ask those challenging “so what” questions made the process more difficult but also resulted in a better dissertation. Steve constantly challenged me on writing style, methodology and statistics. Steve exercised a great deal of patience with me as I struggled with articulating my positions, orally and written, and fought with the computer (mine, his, everybody’s). He was always available to help me work through problems and issues, both intellectual and emotional. When I was ready to
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quit the doctoral program, Steve “kidnapped” me and convinced me that there were better ways of dealing with the obstacles I had encountered. He encouraged me to find better ways of dealing with stress and taught me how to take better care of myself. Bob and Steve both grew in understanding what it meant for me to be an African-American female in a majority institution.

I am indebted to my other committee members as well. I have learned much from Dr. Toni Calasanti about the significance of feminist thought to our understanding of the experiences of both males and females in organizations. Toni spent numerous hours with me in discussing racialized and gendered organizational contexts. Her “sabbatical” was spent in developing my intellectual position, and for that, I am eternally grateful. Furthermore, Toni and Dr. Sigrid Gustafson empathized with my struggles but went beyond that to provide real guidance on sensitive issues and processes. Sigrid’s contributions early in the process were instrumental in my feeling confident to pursue this line of intellectual inquiry. Her imagination, sensitivity, and integrity have helped me enormously to express my thoughts in a clear and consistent manner. Dr. Roseanne Foi challenged me to develop the theory which supported my underlying assumptions and statements. She clearly saw possibilities and richness in texture that had escaped me. It was an honor for me to be mentored by all five members of my committee, and to them all, thanks.

Special thanks also go to Dr. K. Dow Scott, whose leadership as my comprehensive examination chairman enabled me to successfully complete that process. His phone calls

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to my spouse in helping to hold my family together as I obsessed over comps were extremely helpful. Dr. Kent Murrmann's support and advocacy of me in the program were also extremely valuable and greatly appreciated. Kent served as a mentor, confidante, and friend who has been supportive throughout the whole process.

I was fortunate to have had the support from individuals who recognized my potential earlier than I. Thanks to Dr. Ronald Johnson, Associate Dean and Director of the MBA Program and Ms. Joyce Bohr, Admissions Coordinator of that program. Dr. Martha Johnson, Associate Dean of the Graduate School and Dr. Joyce Williams-Green, now director of Black Studies, also championed my cause behind the scenes. Special thanks as well go to Dr. Terry Cobb and Dr. Julie Ozanne, whose early critiques of my work were both critical and academically rigorous but also developmentally sound and nurturing. They both went beyond the call of duty in providing feedback and support for me. Drs. Mary Connerley and Don Hatfield provided sound advice; in addition, Don's assistance with SAS coding was invaluable.

Finally, no one can do a Ph.D. on their own, without the encouragement of friends and extended family. Therefore, special thanks are extended to my sorors of the Blacksburg Alumnae Chapter of Delta Sigma Theta Sorority, Inc., and other social support networks (particularly, Leslie Johnson, Leslie Thomas, Delores Scott, Beverly Little, Bill Murry, Rhonda Rogers, Sandy Crigger, Dinah Akers, Alice LoMascolo, Danielle Bland, Lisa Calongne and Melissa Kessinger) for their caring, listening, and supportive friendships.
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CHAPTER 1
INTRODUCTION TO THE STUDY OF THE
EFFECTS OF MENTORING ON SOCIAL AND
INSTITUTIONAL ISOLATION

The starting thesis of this study is straightforward: The basic problem of the
under-utilization and under-representation of women and minorities in the management
hierarchies of U.S. organizations cannot be alleviated through the socialization techniques
of mentoring until the differential experiences of isolation are better understood for these
respective groups. While these experiences are felt at the individual level, they are tied to
the structural processes within the organization.

This chapter will outline the basic arguments relevant to this thesis, and it will pose
four research questions that are specific to this study: (1) Can isolation be measured on
two dimensions, institutional isolation and social isolation? (2) Do some racial/gender/age
groups have lower levels of institutional isolation and social isolation, on average, than
other groups? (3) What is the effect of formal and informal mentoring on isolation? and
(4) Even after controlling for group differences, is there a relationship between mentorship
and isolation?

Under-Utilization and Under-Representation of Women and Minorities

Many organizations invest a significant amount of time and financial resources in
attracting, selecting and training their workers. In fact, Taylor and Bergman (1987) cited
research suggesting that recruiting costs alone equal one-third of the new hire's annual
salary. Cascio (1991) suggests that when "proper" accounting figures are used to
compute the costs of separation, replacement and training in the event of turnover, large
firms might annually expend sums in the six to seven figures. In addition, the American Society for Training and Development (1986) reports that total training outlays may exceed $30 billion dollars in U.S. industry. This is a tremendous corporate investment in employees. Therefore, it is critical to organizations that recruits become full-fledged organizational members.

A number of studies, in particular the Glass Ceiling Report (U.S. Department of Labor, 1991), indicate that while more women and minorities are hired, their relative standing in organizations is unchanged. Morrison and Von Glinow (1990) cites a U.S. government study (U.S. Office of Personnel Management, 1989) which shows that women do not fare any better in government or educational institutions than they do in the corporate world. In fact, in the Civil Service System, women held only 8.6% of the positions of the Senior Executive Service levels, while most females were clustered in lower-paying GS5-G10 levels (U.S. Department of Labor, 1986). Furthermore, Sandler (1986) show that nationally, on average, each college and university employed only 1.1 senior women at the level of dean and above.

Of the few studies conducted on Asians and Hispanics, the results are equally dismal. Lan (1988) found that only 2.2% of California's Career Executive Assignment positions were held by Asians despite their substantial representation in positions which would have qualified them for the higher-level positions. In addition, in a 1986 survey of 400 Fortune 1,000 companies, less than 9% of all managers were minorities, including Blacks, Hispanics and Asians. These groups are encountering a number of impediments to
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their upward career mobility, despite their qualifications and preparation for successful organizational experiences. In summary, individuals whose race and gender are different from that of a majority of the workers within their organization may encounter additional barriers to their organizational success. For example, they may have limited access to sources of power within the organization; they may not be privy to the same information network; or their performance may be perceived differently because of race and gender characteristics.

The socialization literature suggests it is possible that developmental relationships (such as mentorship) may help overcome some of the barriers to career success. However, because of the above-mentioned and numerous other factors, organizations may need to re-examine their human resource practices and policies, including their socialization and mentoring practices, which may create barriers to their organizational members' actual and perceived inclusion as full organizational members.

**Individuals' Perceptions of Workplace Experiences**

A considerable amount of research has been conducted on the workplace experiences of individuals and how they adapt to, are in conflict with, and/or are changed by organizations. This literature has developed independently in a number of different disciplines. What is consistent is the notion that, for myriad reasons, individuals may not feel included as full members of the organization. This feeling of exclusion may be (1) the result of structural barriers that remove the individual from the "fruits of his/her labor"; or (2) an incongruence between the individual and the organization because of differences
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in values, attitudes, and norms; or (3) institutional isolation and social isolation, which might occur because organizational structural barriers and individual differences result in individuals experiencing the workplace differently. This last perspective is the focus of this research. This sense of isolation shapes their perceptions of, and reactions to, their experiences in the workplace including socialization practices of employers. Individuals' feelings of exclusion may be moderated by organizational socialization practices such as mentoring. Hence, in order to be effective, socialization programs (and in particular, mentoring) will need to address and reduce this sense of isolation.

The study reported here initiates an examination of this perspective, by examining the organizational context, then using several views of worker isolation, how it varies between racial and gender groups, and the ways in which mentoring programs affect it.

Organizational Context of Diversity

The United States workforce has always been very diverse (especially when compared to other societies), and the challenges of dealing with a culturally diverse society have always existed. Organizations need to address diversity because (1) it makes good business sense to fully utilize the capabilities of all organizational members; and (2) a myriad of governmental regulations have serious consequences, financially and otherwise, if one demonstrates that there is differential treatment of individuals in organizations (i.e., Civil Rights Act of 1991, Age Discrimination in Employment Act). The organization must also address the needs of its incumbents whose attitudes may also be impacted by the influx of minorities and women into the organization.
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These diversity issues with respect to race, age and gender have not been fully addressed in the literature. This dearth of research may be because of the implicit theories and assumptions of socialization researchers and the constituency (clientele) with whom they worked. In many cases, the research has focused on white male managers whose emphasis was on socialization for their own, predominantly homogeneous ranks but not for the more diverse rank-and-file workers. Despite their increased numbers, women and minorities still differ from majority males in their attitudes about workplace experiences. Perceptions of institutional and social isolation may provide a plausible explanation which accounts for differences in attitudes and subsequent career success of individuals in organizations. This perspective examines the experience of individuals who are physically a part of the group, but who may not perceive that they are members of the group because of their individual characteristics (race, gender, and age) and/or organizational characteristics (workforce composition, department, occupation). In fact, there may be differences in values, attitudes, communication styles and patterns of interaction, which could affect the subsequent success of these groups within the organization as well as overall organizational productivity. These individual-level manifestations of organizational processes are the focus of this research.
Research on Differential Work Experiences

A plethora of research has indicated that, regardless of whether objective or subjective outcomes are measured, men and women experience the workplace differently (Amott & Matthaei, 1991; Andersen & Collins, 1995; Kanter, 1977a; Larwood & Gattiker, 1977; Noe, 1988a). In addition, the workplace experiences of Caucasians are significantly different than those of African-Americans and other racial-ethnic minorities (Bell, 1990; Cabezas, Lowe, Wong, & Turner, 1989; Greenhaus, Parasuraman & Mobley, 1990; Higginbotham, 1987; Nkomo & Cox, 1990). Most research has followed one of two lines. In examining objective outcomes such as organizational career mobility, promotions, and pay, one stream has highlighted individual characteristics. Typically, the employee has been found to be deficient or individuals in authority utilized biased judgments in their assessment and treatment of other individuals in the organization. The other research stream has emphasized an examination of organizational characteristics, such as internal career ladders or sex ratios.

Similarly, studies of more "subjective" experiences indicated that some groups do not feel as though they are a part of the organization (Kram, 1985; Nkomo & Cox, 1990; Noe, 1988a). Research has accounted for this "unwelcome" feeling by examining individual differences in the workplace and has assigned the "cause" of the problem or lack of belongingness to some type of individual differences. For example, some research has used human capital theory to show that some groups are ill-prepared for inclusion. Other
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research has examined organizational programs which worked (or failed), such as socialization processes.

These streams of previous research have traditionally assumed a gender- and race-neutral and value-free organizational context in which these phenomena occurred. A gender- and race-neutral and value-free context is one in which individuals are assumed to have organizational experiences in which their race and gender do not matter—that is, one experience fits all individuals—and in which there is no explicit or implicit organizational value system. These assumptions are not made explicit but are tacitly understood. Little work has been conducted which examines the notion that imbedded attitudes, policies and practices affect the way individuals experience the organization.

However, recent critical scholarship has challenged such assumptions, by arguing that we can explain empirical data better with a theoretical framework that assumes from the outset that there are structures in place that have a negative impact on women and minorities. These scholars (Acker, 1992; Collins, 1990; Nkomo, 1992; Cox, 1990; Cox & Nkomo, 1990; Thomas & Alderfer, 1988) have explored power and privilege relationships in organizations, thereby challenging traditional assumptions about organizations and how they affect and are affected by individuals. This alternative approach posits the necessity of examining the subjective experiences and objective outcomes of individuals in relation to the gendered and racialized context of the organizational structure.
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Importantly, this perspective does not assume individual intentionality. That is, through its focus on structures, it does not assume that the privileged group (Caucasian males) is either aware of being privileged or consciously acts to maintain their privileged status. Rather, an organizationally gendered or racialized context maintains implicit values and norms that are historically and culturally derived and not the direct consequence of any single individual’s actions.

Race, gender, and class vary across cultures and are imbedded in social institutions and, hence, in organizational structures. Andersen and Collins (1995) argue that social institutions exert powerful influences on everyday life, and that they serve as conduits for race, class and gender oppression (and its reverse, privilege) in society. In fact, social institutions are built from and reflect the historical and contemporary patterns of race, class and gender relations in the society at large. Thus, social institutions and practices have developed in relation to and based upon the experiences of those with the greatest amount of power. As a result, historically, in the United States, women and minorities have been subjected to policies and practices which, regardless of any particular individuals, have been geared toward benefiting Caucasian men. Indeed, because organizations and social structures are both racialized and gendered, women and minorities have not been afforded the same opportunities or outcomes as men. In all likelihood, again, this "objective" deck has been stacked unknowingly as it has developed out of the "taken-for-granted" experiences and world view of those with privilege.
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Regardless of individual intent, the outcome is incontrovertible—that women and minorities have not gained the same success as their Caucasian male counterparts.

The key issue is that if we can look at organizations within a culture-driven context, we may find new solutions to old problems—solutions that will benefit the organization in the twenty-first century, when the diversity of the workplace will be greatly increased. In fact, if U.S. organizations are going to remain competitive, they will need to be able to assess accurately and to use wisely the talents of all organizational members. Socialization practices are one method organizations have utilized to acculturate individuals in an attempt to facilitate newcomer development. From a practical perspective, mentoring is the primary socialization practice the literature supports as enabling individuals to overcome barriers to career success.

**Mentoring as a Vehicle to Overcome Career Barriers**

Mentoring may facilitate the development of individuals by providing them with both information and social cues. Mentors may serve as intermediaries for the individual within the organization, and that visual sponsorship might facilitate more positive perceptions of the individual's capabilities and outcomes. In addition, the existence of a formal (organizationally sponsored and sanctioned program) and informal (program where the individuals have met and agree to enter into relationship and participate as mentor and protégé) mentoring program may result in different outcomes in terms of career success (Chao, Walz, & Gardner, 1992; Dreher & Ash, 1990; Hunt & Michael, 1983; Kram, 1985).
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This literature also suggests that race and gender status may affect one's access to mentoring relationships (Ragins, 1989; Ragins & Cotton, 1991; Ragins & McFarlin, 1990; Thomas, 1990; Thomas & Alderfer, 1989). In many instances, the barriers which restrict or make access more difficult also make the acquisition of the mentoring relationship more critical. These barriers or challenges may exist because of gender and racial differences in communication style, perceptions of sexual impropriety when there are cross-gender relationships, lack of opportunities for minorities to have same-race relationships due to the lack of availability of similar others with whom one can identify and other cross-cultural differences. Furthermore, individuals may differ in their perception of what the mentoring functions are (and should be) because of their race and gender statuses. This perception may also serve as a barrier to their attainment of career success.

**Institutional Isolation and Social Isolation View of Worker Exclusion**

Institutional isolation, as conceptualized in this research, expands on prior conceptualizations of isolation (Seeman, 1959; Srole, 1956) by examining whether isolation has two separate dimensions, institutional isolation and social isolation. This proposed conceptualization of alternative dimensions of institutional and social isolation and their application in organizational settings will expand our understanding of these phenomena in the world of work as they impact women and minorities in the workplace. The use of this proposed approach is even more critical when one considers the challenges
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of developing a sense of inclusiveness when individuals come from very diverse backgrounds.

Unlike the previous conceptualizations of alienation by Srole and Seeman, isolation (specifically, institutional and social isolation) as conceptualized here, examines neither valuelessness nor ignorance of nor lack of adherence to group standards. [See Appendix 1 for a history of alienation and anomie]. Rather, it applies Rook's (1984), Durkheim's (1951), and others' concept of psychological isolation to individuals within organizations. That is, the present study examines the degree to which an individual, as an organizational member, feels separate and apart from his or her peers and superiors on both social and institutional bases. This conceptualization considers a more fundamental issue of how individuals interact with organizations so that certain individuals experience the organization differently from others. Much of the alienation literature, and in it the constructs of alienation and anomie, focuses on individuals' sense of hopelessness and powerlessness in events that affect their lives. That perspective is beyond the intended scope of this research. Furthermore, this perspective does not embrace the concept of anomie or its conceptualization of the utilization of any legitimate or illegitimate means to attain societally approved goals. Rather, this proposed perspective considers ways in which the organization and individual can engage in activities through which both individual and organizational goals can be met. Finally, this perspective examines how the existing organizational values and attitudes might be different than that of incoming, and generally more diverse, employees. However, it does not consider the individual's
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rejection of the organizational values or attitudes. It does, however, raise the question of whether the existing value system may be counter to the needs, values and attitudes of these diverse employees, thus necessitating a different organizational view with respect to socialization.

Possible Contributions of Research

This research contributes to the literature in several very important ways. First, it examines some of the more subjective aspects of individuals' experiences within the context of a racialized and gendered work organization, wherein men, Caucasian women and racial-ethnic minorities (both male and female) experience the workplace in systematically different ways. Specifically, two constructs--institutional and social isolation--are developed and used to ascertain the extent to which racial and gender groups experience isolation. In addition, other attitudes, such as intent to turnover, affective commitment, and alienation are examined in relation to isolation.

Second, because current thinking has advocated the use of organizational interventions, such as mentoring programs, to alleviate individuals' feelings of being separate and apart from the organization, the relationship of mentoring to institutional isolation and social isolation is examined for its utility in understanding similarities and differences in organizational experiences.

This research extends previous work by providing support for the new conceptualizations of social isolation and development of institutional isolation; it
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examines workplace experiences in the racilaized and gendered context in which they unfold; and it helps explain work done by Nkomo and Cox (1990) and others who found that individuals who had "done the right things" and had achieved some objective measures of success in organizations, still did not feel, subjectively, as if they were a part of the organization.

Thus, the use of these isolation constructs, which had not been previously utilized in this fashion, will expand our knowledge of organizational processes in examining both genders and several races/ethnicities within organizations. It also develops the mentoring literature, as it examines mentorship as a moderator between individual and organizational characteristics and isolation. Finally, it examines the interactive effect of race and gender on one's organizational experiences. This research targets the experiences of African-American women, whose organizational experiences have not been significantly examined in the literature. However, because the experience of other racial/ethnic minorities may be conceptually and empirically similar, the experiences of Hispanic-Americans and Asian-Americans are also examined.

In summary, the research examines the relationship between individual and organizational characteristics and attitudes (specifically, institutional and social isolation) by linking the socialization and the race relations literatures. It examines the socialization literature via mentorship. If it can be established that individuals experience institutional
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and social isolation and that mentoring moderates the strength of the relationship between individual and organizational characteristics and isolation, organizations may need to customize their mentoring programs to address these diverse needs.
Chapter 2

Literature Review

The purpose of this review is to present the salient literature which examines the hypothesized relationship between individual and organizational characteristics, institutional and social isolation, and mentoring. In addition, this literature review explicates the perspective of a racialized and gendered organizational context in which these workplace experiences occur. This chapter presents (1) the theoretical background for understanding racialized and gendered organizational contexts, (2) the conceptualization of isolation, and (3) the problem statement and conceptual model.

Theoretical Perspectives

A number of different schema have been developed to categorize theories which examine the differences between work experiences of men and women, within and across races. For example, O'Neill (1985) classified economic theories as role differentiation versus discrimination theories; Coverman (1988) compared and contrasted individualist and structuralist explanations; Reskin and Hartmann (1986) discussed women's choices versus labor market choices; and Stevenson (1988) analyzed neoclassical, systemic/structural, and radical views of organizational experiences. This study adopts a framework that is consistent with the categories used by Morrison and Van Glinow (1990), who differentiated between individualist, discrimination, and structural theories.
Individual Theories. Individual theories in both economics and sociology assume that the economy is essentially a competitive, free market. Thus they focus on individual differences and individual choices, such as women's traits, behaviors, attitudes, and investments in human capital to explain workplace inequality. These theories de-emphasize structural or institutional explanations such as how the occupational or class structure facilitates or hinders the socioeconomic attainment (or other prescribed organization outcomes) of specific groups. A primary sociological perspective in this category is functionalism, an example of which is status attainment theory. In essence, status attainment theory says that the attainment of status is a function of the occupation women chose, the educational level they obtain, and the earnings they reap, as well as individual attributes. In particular, these theorists have investigated the extent to which ascribed characteristics such as sex, race or social class background versus achieved characteristics (such as years of schooling completed) affected one's status attainment. Unlike human capital theory, their arguments utilize both economic and noneconomic dimensions. A weakness of the status attainment theory is that occupational status, either as a dependent or independent variable, does not facilitate understanding of women's attainment, since jobs women fill are consistently paid lower than jobs filled by men at the same occupational level. In addition, it de-emphasizes structural differences and assumes everyone competes in the same market (Acker, 1988).

Human capital theory in economics attributes differences between gender and races to differences in their past investment in education and job training (Blau & Ferber,
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1987). According to this view, the quality of labor supplied by men and women (or minorities versus Caucasians) varies because of such things as different patterns of labor force participation, levels of education, and prior training and experience. Horan (1978) argues that human capital theory "assumes an open, fully competitive market process in which individual characteristics are identified and rewarded according to their societal value" (p. 536). Blau and Ferber (1987) contend that if the human capital argument is correct, women and minorities should determine the occupational setting in which they desire to work and invest in human capital accordingly. They further argue that if there is differential treatment, it is through the educational process not the workplace, so any policy changes should be made at that level. This argument has not been fully tested.

Criticisms of human capital theory often center on the premise that investments pay off for all groups equally. Not only this, but that if women and minorities succeed, it is because they availed themselves of male-worker defined opportunities open to them; if they are not successful, it is their own fault because of poor choices and lack of human capital investment. Indeed, this argument, if taken to its logical conclusion, suggests that if women "do the right thing" and "acquire the right stuff" (based on the male model of correct behavior and correct acquisition), they will be as successful as men. Thus, women (for example) have to know and understand what the male models of behavior and human capital investment are and act accordingly; i.e., emulate the "objective" male worker standard. However, even when variations in human capital investment explain part of the wage gap, the majority is still unaccounted for. Further, research has consistently
demonstrated that women and minorities do not reap the same return to human capital investments (given the same level or kinds of inputs) as white men (Stroh, Brett & Reilly, 1992; Higginboham, 1987; Cabezas, Tam, Lowe, Wong & Turner, 1989).

**Discrimination Theories.** A second category of theories is discrimination theories. These perspectives point to bias on the part of the dominant group as being the root of differential treatment. Three basic explanations for discrimination are advanced. First, relevant stakeholders (e.g., employees, customers, and employers) have discriminatory tastes for Caucasian men. These preferences exist even if women and minorities are perfect substitutes due to their human capital investment/status attainment (Becker, 1957). Therefore, employers will hire women and minorities only at a wage discount that compensates the organization's loss in employing them.

The second explanation is the rational bias explanation, which states that contextual circumstances affect discrimination. In other words, the manager will discriminate if she or he believes she or he will be rewarded; conversely, if the manager believes that discrimination will lead to punishment, he will not discriminate. This theory illustrates why civil rights laws have had difficult implementation in the work world (Larwood et al., 1988). A third explanation is the Wells and Jennings (1983) model which argues that there is an attitude of entitlement held by Caucasians, especially Caucasian males, who believe that they are better suited for management and positions of authority than African-Americans and women. Therefore, only a few "chosen" minorities and women will achieve career advancement. Unlike the first argument, this argument is irrespective of the
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desires of relevant stakeholders, but is based on the beliefs of those in positions of power who control access to valued positions.

**Structural Theories.** The final type of theory is the systemic/structural approach which examines structural and institutional mechanisms that impact or alter workers' achievements. In economics, these perspectives emphasize institutional factors, such as characteristics of firms, the economy, and industries, examining differences in wage and career mobility outcomes. In sociology, structuralist theories are based on the conflict theory of stratification, whereby competing social groups are located in a hierarchical arrangement because of their differential access to scarce social and economic resources, such as power, wealth and influence. Those that are already advantaged by possession of these resources behave to maintain their status through institutional mechanisms such as rules, regulations, policies and practices.

Some argue that the problems women and minorities face in the labor market are the result of development of a dual labor market. Differences are not due to individual attitudes and qualifications but to labor market segregation by market and gender. Dual labor market theory was developed to explain the lack of success of marginal workers, such as inner-city minority workers whose education and training did not reduce their unemployment rate (Thurow, 1969). The needs of capitalism result in women and minorities being employed in sectors of the economy in which job instability, low capitalization, small profits, low wages, little advancement opportunity or job security, and high turnover are the norm (i.e., a secondary labor market). In other words, within a
capitalist economy, these dual labor markets were not created to segregate, and in fact, the employer does not care who actually fills these jobs. The groups placed in the secondary labor market generally have no exit out of it and discrimination is often justified or explained as "economic efficiency" (Larwood & Gattiker, 1987). Men, on the other hand, are employed in the primary labor market which is characterized by more stability, higher wages, better working conditions, chances for advancement and due process in the administration of work roles.

The research based on dual labor market theory and similar structural approaches has generally examined the progress of women and minorities by comparing these groups to one another rather than to Caucasian males. Thus, when one examines these studies, one cannot determine which groups have actually made progress. Further, no attention has been paid to imbedded racism or to the differential effect of sources of domination and oppression on minority groups in organizations. While white women encounter the glass ceiling, the glass is breakable, and some white women will enter the top echelon. Blacks, on the other hand, experience what Henriques (1991) terms a "Lucite ceiling": one can see through it, but it is more difficult to break than glass. Consequently, minorities have more restricted opportunity than Caucasian women. Finally, these theories also do not adequately account for the backlash against women and minorities when they enter white, male-dominated professions.

A somewhat different structural perspective which has received widespread attention is tokenism. Here, women's lack of opportunity and power in organizations is
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explained by the sex ratio of groups within organizations. Kanter (1977b) argues that women's experience in organizations is influenced by the proportions of their representation in the workforce. Kanter identified four types of groups, based on their numerical representation: (1) a uniform group where only one group is represented; for example, all Caucasian males; (2) skewed groups, consisting of at least 85% men, in which the women in the group are "token representatives" of their gender; (3) tilted groups wherein one group still forms a clear majority (65% men, 35% women); and (4) balanced groups, consisting of numerically equal representation. In tilted groups, Kanter suggests that minority group members can form alliances and increase their power. In balanced groups, group dynamics matter less than structural elements.

For purposes of examining the effects of race and gender on workplace experiences, some of the criticisms of Kanter's theory render it unusable. For example, it was developed in relation to gender proportions and not race proportions, and it has not been examined in terms of race. Even in research on gender, there is a nonsymmetrical effect, in that men who are "tokens" experience the workplace differently than women tokens. In fact, research indicates that men who enter traditionally female occupations actually experience rapid mobility; men who are unique experience a "glass escalator" rather than a "glass ceiling" to their success (Yoder, 1991; Williams, 1992). Apparently, then, proportions alone are not the key; rather power relations structure the context in which numbers matter (Yoder, 1991).
Organizations as Gendered and Racialized. The inadequacies of previous approaches have led some scholars to offer an alternative theory. Little work has been conducted which examines the notion that imbedded attitudes, policies and practices with respect to race and gender affect the way individuals experience the organization.

However, recent critical scholarship argues that we can explain empirical data better with a theoretical framework that assumes from the outset that there are structures in place that have a negative impact on women and minorities. These scholars (Acker, 1992; Collins, 1990; Nkomo, 1990; Cox, 1990; Cox & Nkomo, 1991; Thomas & Alderfer, 1989) have explored power and privilege relationships in organizations, thereby challenging traditional assumptions about organizations and how they affect and are affected by individuals. This alternative approach posits the necessity of examining the subjective experiences and objective outcomes of individuals in relation to the gendered and racialized context of the organizational structure. Importantly, this perspective does not assume individual intentionality. That is, through its focus on structures, it does not assume that the privileged group (Caucasian males) is either aware of being privileged or consciously acts to maintain their privileged status.

This racialized and gendered organization perspective gets its impetus from the observation that previous research that has examined the experiences of individuals (and groups) in the workplace has been deficient both methodologically and theoretically, in both obvious and less apparent but critical ways. The use of Caucasian male-only samples to examine workplace experiences has excluded women and minorities. As a
result, we know little about these "others" on their own terms. A recent, similar criticism has been made of the dearth of research on "others" in medical research literature, where medical conditions of Caucasian males are assumed to develop in the same way in other groups. As with workplace experiences, then, little is known about conditions which develop in other groups or about the similar or dissimilar progression of diseases in these groups.

In addition, the exclusion of "others" from the study of Caucasian males means that the similarities and differences among the groups could not be explored and the perspective of the "other" cannot inform us about the experiences Caucasian males encountered. That is to say, because Caucasian men were viewed independently of other groups and their experiences were not viewed in relation to that of other groups, only one aspect of their experience has been captured. In addition, the inferences made from those studies may not be applicable to women and minorities, which limits understanding of their experiences. Acknowledgment of this obvious fact has led to an increase in the number of studies of previously neglected groups. However, these studies are still problematic if they do not acknowledge and incorporate the deeper, less obvious theoretical reasons for focusing on excluded groups. One of the less obvious reasons relates to the development of a "standard" or "typical" worker.

Because Caucasian males are used as the standard, implicitly or explicitly, when other groups were included in the sample, the latter have been viewed as "other"--deviant from this "objective" standard. This approach has not only obstructed the creation of
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knowledge about excluded groups, it has diminished the opportunity to develop a complete picture about the Caucasian male worker. His position, quality of life, and overall experiences, in fact, exist in relation to those others. Furthermore, the resultant knowledge is suspect as it has not been generated about the experiences of women and minorities for their own sakes, from their own perspective, nor in relation to the experiences of their Caucasian male counterparts (Andersen & Collins, 1995; Acker, 1990).

A second major theoretical criticism of previous research is that it has implicitly assumed that organizations are both gender- and race-neutral, and thus value-neutral and objective entities (Acker, 1992; Nkomo, 1990). This is coupled with the notion that organizations engage in objective practices leading to objective outcomes which disadvantage women and minorities because of some flaw or lack in women and minorities. Related to this is the notion that these groups are disadvantaged without a simultaneous acknowledgment and examination of the attendant benefits and advantages to Caucasian males. In fact, Alderfer (1982) and McIntosh (1988) suggest that power and privilege are relational -- one group's power and privileged status rests on the subordination and disadvantages of another group. Importantly, this perspective does not assume individual intentionality. That is, through its focus on structures, it does not assume that the privileged group (Caucasian males) is either aware of being privileged or consciously acts to maintain their privileged status.
Social Construction of Race and Gender. Social scientists have long argued that race, gender and class are socially constructed categories. In fact, race, gender, and class vary across cultures and are imbedded in social institutions and, hence, in organizational structures. From a social science standpoint, a social institution refers to the established societal patterns of behavior organized--"business as usual"--around a particular purpose. Examples of social institutions include the economy, the family, education, the state (government) and the workplace. Andersen and Collins (1995) argue that social institutions exert powerful influences on everyday life and that they serve as conduits for race, class and gender oppression and privilege in society. In fact, social institutions are built from and reflect the historical and contemporary patterns of race, class and gender relations in the society at large. Thus, social institutions and practices have developed in relation to and based upon the experiences of those with the greatest amount of power. As a result, historically, in the United States, women and minorities have been subjected to policies and practices which, regardless of any particular individuals, have been geared toward benefiting Caucasian men. Indeed, because organizations and social structures are both racialized and gendered, women and minorities have not been afforded the same opportunities or outcomes as men. In all likelihood, again, this "objective" deck has been stacked unknowingly as it has developed out of the taken-for-granted experiences and world view of those with privilege. Regardless of "intent," the outcome is incontrovertible—that women and minorities have not gained the same career success as their Caucasian male counterparts.
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This perspective argues that institutionalized power relations have resulted in organizations being gendered. This rests on the understanding that gender is socially constructed. That is, sex refers to one’s biological identity as male or female, gender refers to the systematic structuring of relationships between men and women in social institutions. Gender, thus, is a socialized, learned identity that is intimately tied to the structural level. Changing gender relations is not simply a matter of changing individual attitudes regarding the ideology of sexism, but requires the transformation of institutional structures as well. To say that an organization, or any analytic unit is gendered, then, means that

Advantage and disadvantage, exploitation and control, action and emotion, meaning and identity, are patterned through and in terms of a distinction between male and female, masculine and feminine. Gender is not an addition to ongoing processes, conceived as gender neutral. Rather, it is an integral part of those processes, which cannot be properly understood without an analysis of gender (Acker, 1982).

As part of this argument, organizations are viewed as patriarchal. Patriarchy is "a system of social structures and practices in which men dominate and exploit women" (Walby, 1990:20); or "a set of social relations which has a material base and in which there are hierarchical relations between men, and solidarity among them, which enable them to control women" (Hartmann 1977:232). In a patriarchal society, women must
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fight for individual rights, such as in marriage and divorce laws, property rights and the guardianship of their children.

Acker (1992) demonstrates that seemingly objective organizational documents, contracts, work rules, policies and practices are all developed with underlying assumptions about gender. She argues that gendering of organizations occurs through five interacting processes: (1) division of labor along gender lines, where allowed behaviors, power, allocations of physical space, etc., are structured; (2) use of symbols and images in which masculinity is linked to "worker" and "manager" and other gender divisions such as these are constructed; (3) interactions between women and men and same-sex interactions in which the patterns of domination and subordination are reinforced and re-enacted; (4) through processes that produce gendered components of individual identity, such as choice of appropriate work, language use, clothing and presentation of self as a gendered member of an organization (Reskin & Roos, 1987); and (5) in the creation and conceptualization of social structures or institutions, such as family and organizations.

A further component of this perspective is the argument is that organizations are also racialized. Similar to gender, race is also a socially constructed category. This explains why, for example, there is no scientific agreement about how many races exist, what the distinguishing features of races are, and what bearing race has on human behavioral traits. In fact, because racial distinctions have no biological bases (Cockburn, 1991; O'Hare, 1992), the majority of physical and cultural anthropologies no longer believe race to be a useful construct. The meaning of race itself reflects institutionalized racist practices and
beliefs and is a socio-historical, political concept (Omi & Winant, 1986). Societal
definitions of race shift as racial meanings change to reflect power struggles. Imbedded
racism (defined by Blau, 1972, as institutionalized racism) is a system of beliefs and
behaviors by which a group defined as a race is oppressed, controlled, and exploited
because of presumed cultural or biological characteristics. McIntosh (1988) and Alderfer
(1982) explain that the systems of racial—and gender—privilege are invisible to those who
benefit from them but not to those who are thereby oppressed, even though they structure
the everyday life of White people and people of "other" colors. Thus, race and gender
are, in a very real sense, social relations.

Placement within racial hierarchy leads to differences in outlook concerning the very
presence of racism and what can be done about it. Furthermore, different racial/ethnic
minority groups have experienced racism differently. Therefore, these groups cannot be
combined to express the "minority" experience. For example, the immigration policies of
the United States meant that Africans immigrated against their will; Cubans immigrated
because of communist oppression and were subsidized by the United States government;
Vietnamese were refugees; American Indians faced war, disease, and a deliberate
program of extermination. These policies both are shaped by and affect racial power
relations. As a result, generalizations cannot be made about minorities as "minorities".
The experience of each group, while sharing some similarities, is unique. The "group" of
"women of color" includes women from numerous racial, ethnic, and national origin
backgrounds. Blacks, Latinas, Asians and American Indians are considered women of
color by the dominant group because of their non-White or mixed backgrounds. Yet, Latinas refer to many ethnicities, the primary ones being Mexican, Puerto Rican and Cuban women; among Asians, there are more than twenty national origins, including Chinese, Japanese, Filipino, Korean, Asian Indian and Vietnamese (Dill, 1979). Race and gender—along with class\(^1\)—create a matrix of domination that women of color experience and resist on three levels: individual, group, and systemic (Collins, 1986:365-6).

Acknowledging that race, gender, and social class are relational, then, means that one must examine the experiences of both oppression and privilege.

**Individual Experiences of Gendered and Racialized Organizations.** It is within this structural context that individuals experience their work lives. Examination of individual experiences must be understood as occurring within a racialized and gendered context. At the individual level, power relations may be manifest in expectations and interrole conflict; a difference in attitudes or perceptions about workplace experiences, such as institutional and social isolation; differential access to mentoring relationships; and a devaluing of women’s and minorities’ work. Manifestations within the workplace and in the subsequent construction of knowledge may be that contributions of women and minorities are not recorded or are viewed through a lens which compares them unfavorably to white male contributions; universally using language that reflects the

\(^1\) In this research, I will not further examine class privilege because all subjects are of the

same class.
exposure of white males, including use of such terms as "seminal" rather than "pivotal", while words that are more maternal are used to characterize weaknesses and terms that are colloquial to a minority group are considered uneducated or unacceptable, such as the use of "Black" English.

Because privilege is part of the "taken-for-granted" experience of the persons possessing it (McIntosh, 1988), the standpoint of the outsider or disadvantaged person may bring great insight to the social relation. That is, outsiders' paradoxical closeness to and remoteness from privileged social groups gives them greater knowledge of the processes underlying their relative positions. They possess knowledge of their own experiences, which the privileged group does not understand or acknowledge exists; in addition, in order to survive in the dominant culture, they also understand the processes the dominant culture utilize. They are "trained" or "socialized" in the dominant culture, but do not share the privileges, patterns of belief or historical experiences of the privileged "insiders". It is within this framework that we begin to examine the constructs of institutional and social isolation.

The following discussion provides additional support for the notion that individuals experience both institutional and social isolation in the workplace, the levels of which are a consequence of both individual and organizational characteristics.
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Conceptual Model

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Insert Figure 1 about here
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It is a primary thesis of this work that individuals in organizations experience feelings of inclusion and/or exclusion, and that these can be measured. Those feelings, conceptualized here as institutional isolation and social isolation, may be the result of individual characteristics such as one's age, race, gender, and need for affiliation, or organizational characteristics such as the composition of the organization's workforce and the type of department or occupation in which the individual works. These beliefs about one's organizational experiences may be changed if organizations utilize socialization practices such as mentoring to help the individual make a successful transition into and career progression through the organization.

Critical to the understanding of one's feelings of isolation within organizations is an acknowledgment and acceptance of the individual's need for relationships. Because of these needs, individuals strive for interaction with and support from others. The social identity literature suggests that the individual's own reference group--defined as "any group the individual uses as a source of personal values, beliefs, or attitudes or as a standard for evaluating his or her own behavior (or both)" (Jewell & Siegall, 1990:380)--is instrumental in shaping the individual's perceptions of the situation as well as responses to it. In addition, adult life development and adult career stages research by Dickens and Dickens (1982), Levinson (1978), and Schein (1975) lends support to the idea that
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individuals need developmental relationships (with one avenue being mentorship). Because individuals strive for interpersonal interactions with and support from others, they may feel less included by the organization when this support is lacking or deficient. They may, therefore, feel institutionally and socially isolated.

It is posited here that individuals experience two types of isolation: institutional isolation and social isolation (as shown in Figure 1). The following discussion (1) defines institutional and social isolation, (2) differentiates these constructs from other ones, (3) provides evidence of these two dimensions, and (4) addresses possible outcomes of one's experiencing of institutional and social isolation.

**Institutional Isolation**

Institutional isolation is defined as (1) the belief one has regarding one's lack of knowledge about, access to, interaction with and/or utilization of organizational sources of power, prestige, support, and information critical to one's success, and (2) the belief that others significant to one's success discount one's opinion unless it is validated by member(s) of the dominant culture, regardless of one's position, training or educational background. Individuals who experience institutional isolation believe that they are excluded from the decision-making process, have little input into matters which have an impact on them, and are kept out of the "inner circle" where the power, prestige and influence within the organization resides. This concept of institutional isolation has not been previously articulated in the management, psychological, sociological or organizational behavior literatures; therefore, supporting literatures for the actual
construct cannot be presented. These literatures do examine a number of attitudes and behaviors that include or exclude individuals from the information sources of the organization. In fact, there has been work done which examines subcomponents of the dimensions of institutional isolation (such as development of personal information networks, affective commitment, etc.). There is, however, considerable research support for social isolation, as presented in the following paragraphs.

**Social Isolation**

Social isolation is defined as a feeling of exclusion; of being alone; of being singled out; of being on display; of being a translator of one's experience to other-race/other-gender individuals; of being a bridge between cultures; of being representative of entire race or gender; of being on the fringe; of experiencing superficiality of relationships because others cannot relate to one's experiences; of being tolerated but not accepted; of being required to be bicultural; of experiencing unilateral interaction (i.e., the onus for inclusion is on the individual who 'storms the castle'); and of lacking a social support network. Within this conceptualization, individuals who feel socially isolated feel that they are cut off from sources of psychosocial support within the organization. Supportive acts, such as those conceptualized by House (1981) in defining a social support network are lacking. These acts are (1) emotional support (esteem, affect, trust, concern and listening); (2) appraisal support (affirmation, feedback, social comparison); (3) informational support (advice, suggestions, directives, information); and (4) instrumental support (money, labor, time, environmental modification). In addition, the informal ties
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within the organization which might facilitate their success in the organization are also deficient. In fact, social support and informal ties are related, as Rook (1984) suggests, social support is best conceptualized as "various types of help provided through informal social ties (p. 243)."

A number of authors have studied social isolation; and, as a result, there have been a number of different definitions developed. These definitions range from very specific structural barriers or spatial configurations which separate people from their sources of social support, to the nature of the social support network-type relationships in which individuals engage. A sample of these conceptualizations follows. Rook's (1984) review of research on social support, loneliness, and social isolation places these various research streams into a related framework. She summarizes conceptualizations of social isolation from a social psychology mental health viewpoint as having been derived from Durkheim's (1951) theory of social integration, as "lack of integration into a social network (Galle & Gove, 1978; Hughes & Gove, 1981); diminution of contact and communication with others (Kohn & Clausen, 1955; Trout, 1980); and a condition of being cut off from intimate ties for an extended period of time (Faris, 1934)" (p. 252).

Halbwachs (1978) focuses on social isolation as the consequence of having (1) the sentiment of being alone in the world; (2) the anguish, pain and terror of such aloneness confronts the social actor as (s)he loses touch with his/her former self and social network through social status declassification. Revenson and Aldwin (1983) studied social isolation with respect to informal relationships over the individual's lifespan, using both
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behavioral and attitudinal measures. The behavioral measures examined the lack of intimate relationships and absence of a confidant, while the attitudinal measures examined dissatisfaction with the number of close friends one has.

Some support exists in the alienation literature as well, for conceptualization of social isolation. Isolation has been conceptualized by Seeman (1959) as a dimension of alienation and by Srole (1956) as a dimension of anomie. Seeman has identified five alternative meanings of alienation, which included powerlessness, meaninglessness, normlessness, social isolation and self-estrangement. Similarly, Srole's (1956) definition of anomie (commonly thought to be social isolation) includes either a feeling of (a) being separate and apart from the group, (b) being isolated from group standards or (c) being rejected by one's peers. However, Halbwachs' (1978) research indicated that social isolation and marginality appeared to be closely related, which does not coincide with Srole's conception of anomia. [See Appendix A for further development of anomia.]

Institutional Isolation and Social Isolation as Two Distinct Constructs

Smith, Madigan and Gustafson's (1994) study on institutional isolation and social isolation presents preliminary evidence that indicates that individuals do experience isolation on two dimensions. In addition, the view that institutional and social isolation are two distinct constructs is consistent with Weiss's (1973, 1975) work on loneliness in which Weiss separates loneliness into emotional loneliness (the absence of an attachment figure -- e.g., a significant other or spouse) and social loneliness (absence of ties to a social group -- e.g., network of friends, clubs, neighborhood). Weiss suggests that an
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emotionally lonely person is not changed when one adds ties to a social group, nor is the presence of an attachment figure helpful for a socially lonely person. These needs are independent and are satisfied differently; therefore, these constructs are on separate continua. The use of two dimensions is also suggested by the observation that an individual may feel isolated in some areas of organizational experience but less isolated in other areas. For example, an individual may have access to the knowledge and power brokers (the "inner circle") in the organization (i.e., have a low sense of institutional isolation) but may not be allowed into this "inner circle" to establish and develop a social support network to fulfill psychosocial needs. Conversely, an individual may be invited into and considered a part of a wide social network, but because the individuals in the network are not within the sphere of influence and prestige within the organization, the individual may not be privy to organizational information that would enable him or her to become successful (that is, the individual will have a high sense of institutional isolation).

Institutional isolation, without social isolation, may happen particularly among minority group members who, as a group, have not attained positions of power or prestige within the organization but who form a bond for psychosocial support. Reduction of isolation in less critical areas may not lead the individual to feel accepted in or part of the organization. The removal of one barrier merely leads to a reduction in the isolation experienced on that particular dimension.
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Contributions of Proposed Constructs of Institutional Isolation and Social Isolation

Unlike the previous conceptualizations by Srole and Seeman, isolation (specifically, institutional and social isolation) as conceptualized here examines neither valuelessness, nor ignorance of nor lack of adherence to group standards. Rather, it applies Rook's, Durkheim's, and others' concept of psychological isolation to individuals within organizations. That is, the present study examines the degree to which an individual, as an organizational member, feels separate and apart from his or her peers and superiors on both social and institutional bases. This conceptualization considers a more fundamental issue of how individuals interact with organizations such that certain individuals experience the organization differently from others.

Isolation as conceptualized in this research does, however, expand Seeman's (1959) conceptualization of isolation by examining whether isolation has two separate dimensions, institutional isolation and social isolation. In addition, the conceptualization of social isolation here broadens Srole's (1956) definition of social isolation by including additional dimensions. This proposed conceptualization of alternative dimensions of institutional and social isolation and their application in organizational settings will expand our understanding of these phenomena in the world of work as they impact women and minorities in the workplace.

H1: Organizational incumbents experience isolation on two separate dimensions: Institutional isolation and social isolation.
Determinants of Isolation

Personal Characteristics

A large number of individual or personal characteristics could affect individual experiences in organizations. For this study, however, only race, gender, age, and need for affiliation will be considered, as will be explained in the next section. The current focus of diversity research has expanded to include skills, attitudes and values diversity rather than "merely" immutable characteristics such as race and gender. From an admittedly simplistic viewpoint, while there is some merit in considering these other types of diversity, the individuals' inadequacies (that is, differences) can possibly be ameliorated by improving skills, undergoing values training reinforced by organizational socialization practices and reward systems for alignment with organization goals. Indeed, individuals may change occupations, organizations or geographical locations where their skills or values more closely align with organizational requirements.

However, the burden on a racial or gender minority member, if couched in those terms, is permanent and either implicitly or explicitly permeates the majority of that individual's exchanges and interactions. Therefore, diversity with respect to race and gender is a much more difficult issue to examine, but it is one that may alter the impact of consideration of other types of diversity.

Race. There is strong empirical support for including race in any study of isolation. Greenhaus, Parasuraman and Wormley (1990) conducted a study examining the relationships among race, organizational experiences, job performance, and career
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outcomes for 828 manager-supervisor pairs of African-American and Caucasian managers from three work organizations. Their results indicated that African-Americans felt less accepted in their organizations (i.e., experienced social isolation), perceived themselves as having less discretion on their jobs, received lower ratings from their supervisors on their job performance and promotability, were more likely to have reached career plateaus (i.e., to have encountered organizational barriers to advancement and thus, to have experienced institutional isolation), and to have experienced lower levels of career satisfaction.

Ilgen and Youtz (1986) suggested that minorities, as outgroup members, may not feel accepted into their organization’s informal networks, which Kanter (1979) and Tsui (1984) found to impact organizational advancement and promotion. Furthermore, Nixon’s (1985) study suggested that the majority of African-American managers felt either partially or totally alienated from the formal or informal aspects of corporate life.

Irons and Moore (1985) studied the impact of structural factors on African-Americans and identified the three most significant problems faced by African-Americans: (a) not knowing what is going on in the organization or not being in the network (rated as the most serious problem by 75% of the survey respondents, (b) racism, and (c) inability to get a mentor. These results concurred with those of Fernandez (1981) in showing a strong perception that minorities are excluded from informal work groups. Other research has shown that many female and African-American managers feel excluded from informal relationships with their White male colleagues (Rosen, Templeton & Kichline, 1981; Thomas & Alderfer, 1989).
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In addition, Thomas (1990) suggested that Caucasians and African-Americans enact the history of race relations with their everyday interactions in the micro dynamics of supervision, mentoring and career planning. He stated that racial differences and race and sex taboos can block African-Americans and Caucasians from feeling close to each other or from identifying with each other. Finally, in a study of Asian-Americans in professional and management jobs, similar barriers to upward mobility were most often cited: a lack of networks, mentors and role models (Cabezas, Tan, Lowe, Wong & Turner, 1989).

In summary, the literature suggests that race affects the extent to which individuals in organizations feel institutionally and socially isolated. In general, African-Americans, Hispanic-Americans and Asian-Americans feel they have less access to organizational information, power, influence and prestige than their Caucasian-American counterparts and have less psychosocial support and do not feel they fit in the same way as their Caucasian-American counterparts. Therefore,

H2: African-Americans, Hispanic-Americans, and Asian-Americans feel more institutionally and socially isolated than their Caucasian-American counterparts.

Gender. Gender has also been examined as a variable independent of any effects of race. Support for inclusion of gender in the study of isolation is derived from the mentoring literature (Ilgen & Youtz, 1986; Kram, 1985; Noe, 1988a, 1988b; Ragins, 1989). Logical inferences for the inclusion of gender can be made from the career and adult development literatures (Bardwick, 1979; Gilligan, 1982) in which women’s adult and career development were demonstrated to differ from that of men. In addition, this
research clearly indicates that women's experiences in the workplace differ from those of men. Because of barriers to their success in the organization and lack of promotional opportunity, women experience difficulty in adjusting to the organization. This difficulty manifests itself in the individual feeling institutionally and socially isolated.

Further, Kanter (1977) suggests that because of "marginality", defined as individuals who are somehow unique in a given social situation, white [emphasis added] women encounter difficulties in organizations in entering top management. Simmel (1950) conceptualized this notion as "the stranger," in which the marginal person was viewed as one who is not of the group in which (s)he participates, but one who "imports qualities into it which do not and cannot stem from the group itself (c.f. Wolfe, 1950) due to a unique position of objectivity" (similar to institutional isolation). Park (1928) perceived this marginal person as one who is bicultural, living in two separate worlds in one of which she is socially isolated.

In summary, this literature suggests that gender is salient when one examines workplace experiences. That is, males and females experience the workplace differently and develop different attitudes about these experiences. Females feel that they have less needed information, less access to decisionmakers and more barriers to their success than their male counterparts. Therefore,

_H3: Females, on average, feel more institutionally and socially isolated than do males._
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The past study of race independent of gender did not allow for the examination of the joint experiences of individuals who belong to two minority groups; i.e., race and gender minorities. Therefore, the following section begins an exploration of joint membership.

**Race and gender.** In general, the failure to examine the interaction of race and gender may render the examination of organizational experiences and, in particular, socialization practices ineffectual (Betters-Moore & Reed. 1992a and 1992b; Hull, Scott & Smith, 1982), because the combination of race and gender have a different effect than either of them alone. Therefore, socialization practices which may assist in overcoming gender-related organizational barriers may not be effective in overcoming race-related barriers (and/or a combination of race and gender status). In fact, Spelman (1988) submits that a view which examines an African-American female as merely African-American or female is limited. In fact she states that,

*If the terms of one's theory require one is either Black or Female, clearly*  
*there is no room for someone who is both* (p. 120).

A conceptualization of biculturalism which differs somewhat from Park's but is also related to the proposed construct of social isolation is offered by Bell (1986, 1990), who examined bicultural stress, analyzing the differences between Caucasian-American and African-American women:

*Bicultural stress results when the norms and expectations of the dominant culture deviate from those reflected in the women's personal lives. What leads to*
acceptance and fulfillment in one world, often does not in the other (p.____).

Bell has found that bicultural stress is greater for African-American women than for Caucasian women. Thus, the combination of race and gender appears to have a greater effect on stress than does the gender alone. In addition, Bell (1990) suggests that because of the forced bicultural existence of minorities and women in organizations, these members have learned to compensate for the lack of psychosocial support they need to enhance their development.

In summary, this literature suggests that unless one examines the experience of individuals who are both racial and gender minorities, one cannot understand fully what the implications of the workplace experiences are for those individuals. The experience of women, when women are seen as Caucasian women, may be very different from the experience of African-American, Asian-American or Hispanic-American women. In fact, the experiences of each of the minority groups may also differ from one another.

H4: African-American women experience higher levels of institutional and social isolation than any other racial minority or gender group.

There are other individual characteristics which could be considered when one examines differential work experience. However, the literature supports the differences in the experiences of individuals at different stages of their careers and experience within the organization. In more general terms, the variable most salient for examining this relationship is "age".

Age. It is argued here that the individual’s age is salient because it serves as a proxy for the historical and cultural context in which discrimination experiences which may have
shaped the individual have occurred. In other words, age helps to identify the historical and cultural context in which a person has encountered the workplace. In particular, individuals who have experienced segregation in the workplace and in education, may feel differently about their organizational experiences than those who have not. For example, individuals who were educated in segregated school systems at a time when segregation was the "norm" may feel differently about their organizational experiences than someone whose education was primarily in predominantly majority institutions. The "segregated" individual may not expect to have access to information because, historically, there was differential funding for minority schools, materials and equipment were generally inferior, and the individual may not expect to be treated the same or accepted as fully as his or her Caucasian counterparts. Conversely, someone educated after desegregation may have different expectations about their organizational success and thus feel a deeper sense of both institutional and social isolation when the actual experience is counter to the expected experience. It is the discrepancy between expected and actual experience which exacerbates an individual's sense of isolation. Age serves as a proxy for the individuals' expectations regarding their acceptance in the organization. Age, reflecting the individual's developmental context, not organizational tenure, is considered a key correlate of isolation. Sterns and Alexander (1988) found that younger workers have widespread biases about the performance of older workers which are unsupported by the workers' actual performance. These biases may create an environment in which the older workers may feel isolated. Furthermore, Schutz and Luckmann (1947) suggested that individuals
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have a repertoire of responses to threat or ambiguity based on their past experiences and learning.

Of course, the length of time an individual has been in a position in the organization may also affect his or her access to networks, information sources, and social experiences (that is, tenure affects the degree to which one feels institutionally or socially isolated). If so, one might argue that the longer one is in the organization, the greater the extent to which one has been able to overcome organizational barriers to one's success, and thus one's sense of institutional and social isolation. It is equally possible, however, that one becomes more isolated the longer one is in the organization because of one's inability to overcome impediments. Because, given our present knowledge, it is impossible to make predictions concerning organizational tenure, this variable has been included in this research on a purely exploratory basis.

In summary, individuals experience the organization based on their chronological age, because of the historical time period in which their attitudes about work formed, as well as how their entry into the workforce was viewed by others.

*H5a: Older individuals experience a lower sense of institutional isolation than younger individuals.*
**H5b:** Younger individuals experience a greater sense of social isolation than older individuals.

Older individuals may have developed the necessary information, power and support networks within the organization which are critical for their success. Younger individuals experience the need for greater social interaction than older individuals and experience more social isolation and generally have less access to or knowledge about information, power, and privilege sources.

Finally, the extent to which individuals need to be a part of the organization will covary with an individual's sense of institutional and social isolation. Further discussion on this variable is as follows.

**Need for Affiliation.** An individual's need for affiliation is a personal characteristic which is hypothesized to exacerbate the intensity of the degree to which an individual is aware of, and reacts to, being institutionally and socially isolated. That is, an individual who has a strong need for affiliation may react more strongly to organizational or situational characteristics which cause feelings of isolation than will an individual with a weak need for affiliation. An individual's need for affiliation may have an impact on the level of sensitivity that individual has toward others' behaviors which result in the individual feeling institutionally and socially isolated. There is no evidence of a difference
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between racial/gender groups with respect to need for affiliation. Using this as a control variable a test for significant differences between groups will be conducted. Therefore,

\[ H6a: \quad \text{Older workers experience less institutional isolation than younger workers, even after controlling for need for affiliation.} \]

\[ H6b: \quad \text{Younger workers experience more social isolation than older workers, even after controlling for need for affiliation.} \]

There are also organizational characteristics which are proposed to have an impact on the extent to which individuals experience institutional and social isolation within the organization. The following sections articulate the arguments supporting this perspective.

**Organizational Characteristics as Barriers**

For the purposes of this study, barriers to career success are conceptualized as formal or informal organizational practices, structures, design, or culture which result in the differentiation of qualified individuals on the basis of race or gender, or which impede the upward career mobility of these qualified or qualifiable individuals. Such barriers may be rooted in institutional practices, in organizational agents, or in the individual worker.

The various types of possible organizational barriers are explicated in the following paragraphs.

Organizational barriers may include overt bias or discrimination, whereby individuals have differential access to the organization or are treated differently within the organization because of their protected group status (Levitin, Quinn, & Staines, 1971; Greenhaus, Parasuraman & Mobley, 1990). A structural type of organizational barrier in
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the placement of individuals in jobs or reporting relationships which greatly inhibit, even prevent, possibilities of their success within the organization.

Some organizational characteristics may present barriers for the upward mobility of minorities and women, if individuals are treated differently because their personal characteristics (i.e., race, gender, and age) differ from the specific organizational demographic characteristics which are the "norm" in that organization. The racial and gender make-up of the organizational workforce, whether examined by department, discipline or organization, are salient when the organizational member(s) of interest has few similar others within the organization within (s)he identifies.

Another type of organizational barrier might be inadequate socialization and career development practices. In fact, a stream of literature indicates that mentorship (which can be both a socialization practice and career development practice) provides psychosocial and career support to individuals who might otherwise face organizational barriers to career success. This latter organizational barrier (specifically lack of mentorship) will be the focus of this research. However, there are other characteristics of the organization which might also present additional barriers for the individual. The organizational characteristics which may have an effect on mentoring, such as organizational workforce composition, departmental workforce composition, and whether the mentoring program is formal or informal, will be explained in the next sections.
Organizational Workforce Composition

The racial and gender make-up of the organization is posited to impact the degree to which individuals experience isolation. The race/gender composition of the organization and/or department relate to individuals' perceptions of the degree to which they will be a part of the organization. That is, departments that have traditionally been male dominated have, as part of their gendered culture and practices, barriers which retard the progress of women, in part because of the implicit assumptions and values about work and the impact of the presence of women and minorities. Therefore, one might expect females who enter traditionally male-dominated environments (and in this case, departments) to experience greater institutional and social isolation among their male counterparts than in the traditionally female-dominated departments.

Intergroup theory (Alderfer, 1986; Thomas & Alderfer, 1989) suggested that organizations have two types of groups: (1) groups based on race, ethnicity, family, gender, or age (identity groups); and (2) groups based on common work tasks, work experiences, and position in the hierarchy (organization groups). They also suggested that tension results because one's organization group membership may change, whereas identity group membership does not. Thomas and Alderfer (1989) argued that the organization may not question the evaluations of Blacks (or members of other low-status groups) when the pattern of group relations within an organization mirrors the pattern in society as a whole, despite the fact that these evaluations are likely to be biased.

Furthermore, Thomas (1990) argued that racial differences and sex and race taboos can
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affect the extent to which African-Americans and Caucasians can identify with each other. What this means is that if the composition of the workforce is predominantly Caucasian and male, there may be less likelihood that non-Caucasian and female individuals will be able to identify with or be identified with the majority culture. In fact, Thomas suggests that the negative history of race relations will remain as an "unseen visitor" but powerful presence when whites and blacks interact. As the composition of one group increases, the majority group may become threatened and again enact those patterns of behaviors which led to their predominance in the workforce. The race and gender composition of the workforce is salient at the organizational and departmental level if the incumbent is from a different race and/or gender than the majority of the individuals in the organization. Thus, workforce composition impacts both institutional and social isolation, because the race and gender of the faculty member is more salient when the organizational race and gender make-up is different from the individual's. In summary, workforce composition impacts attitudes of individuals within organizations, especially those who are either (or both) a racial or gender minority.

H7: Among minority women, the experience of isolation (institutional and social isolation) is inversely related to the ratio of minority women in the organization.

Summarized briefly, one's department also impacts the extent to which one feels institutionally and socially isolated; in part due to the culture within the department before diversity was introduced; and, in part due to the race and gender composition of the department.
**H8:** Among minority women, the experience of isolation (institutional and social) is inversely related to the ratio of minority women in the department.

Finally, the use of mentoring by organizations to ameliorate the extent to which individuals experience institutional and social isolation will be examined. The development of the literature supporting mentoring as a socialization and career developmental practice is explicated below within the context of socialization practices.

**Socialization Practices: Mentoring**

Organizational socialization is defined as "the process by which an organizational member learns the required behaviors and supportive attitudes necessary to participate as a [(n) organizational] member (Berlew & Hall, 1966; Manning, 1970; Van Maanen & Schein, 1968, 1971); and "the process by which people learn the norms and roles that are necessary to function in a group or organization" (Van Maanen & Schein, 1979). This literature suggests that organizational socialization is an ongoing process which, theoretically, should facilitate organizational members' acceptance and subsequent success in the organization. In addition, the purposes of socialization research have traditionally been to identify the critical variables which facilitate a newcomer's adjustment to the organization, to aid in the transmission of organizational culture and learning new values, and to facilitate an individual's adjustment to the work environment and his or her development of new skills (Feldman, 1976).

These socialization practices may include orientation programs, training modules, or mentoring relationships, among others. This success should translate into longer tenure with or lower turnover within the organization. The socialization literature further
suggests that organizations implement such programs with the expectation that these socialization activities will assist the workers in developing a greater sense of [affective] organizational commitment and, thereby, affect the corporate "bottom line" by subsequently improving the workers' performance (Kram, 1985; Scandura, 1992). However, other literatures indicate that particular groups are encountering significant difficulties in obtaining these outcomes.

Potential barriers to the advancement of women and minorities noted in the Glass Ceiling Report (1991) included company practices to recruit, place, develop and promote managers. In other words, executive recruiting practices bypassed women and minority candidates (under some notion of "fit"); lack of mentoring; and/or few assignments to high visibility jobs, projects and training programs. The report also noted that barriers can block advancement at different levels of the organization as, in some of the companies studied, no women or minorities were above entry level. Race and gender characteristics affect individuals' attitudes about their work experiences; however, these attitudes may be moderated by the individuals' socialization experiences. In fact, Gomez-Mejia (1983) conducted a study which examined the differences in work attitudes of men and women, controlling for their occupation and years in the occupation. His study confirmed that occupational socialization decreased the attitudinal gap between men and women as a result of the increase in the task-related and job involvement orientation of women. The study also suggested that if women are given appropriate opportunities, they may
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internalize on-the-job those norms or attitudes associated with their male counterparts in these occupations.

Reichers (1987) postulated that newcomers are able to establish a situational identity and make sense of organizational events and practices even more quickly if these newcomers engage in numerous symbolic interactions with others in the setting. [Symbolic interactionism is the process of verbal and social interaction through which meaning and identity arise. It is also the process through which newcomers come to understand organizational realities and establish situational identities (Berger & Luckmann, 1967; Mead, 1934)]. Meaning arises out of the interactions between people; reality and meaning are social constructions and individuals are not strictly separable from their environments. Individuals transform their own perceptions of events in response to the interactions they have with others in a setting. Because individuals contribute to the meaning that arises in a setting, the individuals and situations mutually determine each other.

Symbolic interactions occur more frequently and socialization rates are accelerated when both newcomers and insiders actively seek out interactions. [Proaction is any behavior that involves actively seeking interaction opportunities; (i.e., asking questions, stopping by other people's offices or work areas to talk, initiating social opportunities such as lunch engagements, asking for feedback, and participating in the discretionary social activities) (Mitchell, 1980)]. This model suggests that the frequency of interactions is also
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an important variable for research on newcomer socialization. The mentoring relationship is a vehicle through which these symbolic interactions can occur.

In summary, socialization practices may reduce differences in individuals resulting from their differential work experiences and pre-organizational entry expectations, values and attitudes. The impact of mentoring, in particular, is argued to affect the degree to which individuals experience institutional and social isolation within the organization. A brief review of mentoring and its hypothesized impact on institutional and social isolation is explicated below.

Mentoring. Kram (1985) described mentoring as a set of roles and role activities including coaching, support and sponsorship. In the sponsorship role, the mentors actively intervene, contriving to provide maximum exposure and visibility for their proteges, in an attempt to facilitate their promotability. Kram identified two dimensions of the developmental relationship, which have been supported by other researchers (Burke, 1984; Schockett & Haring-Hidore, 1985; Noe, 1988; Olain, Carroll, Giannantionio & Feren, 1988). These dimensions are career coaching (which includes the roles of sponsorship, exposure, visibility, coaching, protection and challenging assignments); and psychosocial functions (which include serving as role models, providing friendship, counseling, acceptance and confirmation).

Support for mentorship has been found consistently in other literatures as well; academia (Knox & McGovern, 1988; Johnsrud & Wunsch, 1991); mental health (McGovern, 1980; Obleton, 1984; Schmidt & Wolfe, 1980); school psychology (Ochberg,
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Tischler & Schulberg, 1986); medicine (Flach, 1982); criminal justice (Fagan & Walters, 1982); law (Murphy, 1980).

First, classical or primary mentoring is "an intensive developmental relationship of relatively long duration in which proteges receive a range of career and psychosocial help exclusively from one senior manager" (Clawson, 1980; Kram, 1985; Levinson, Darrow, Klein, Levinson, & McKee, 1978). Secondary mentoring is "a shorter, less intense, less inclusive developmental process involving multiple relationships, each offering specialized developmental functions (Phillips-Jones, 1982; Zey, 1984). In addition, there are a number of outcomes of mentoring that have been supported in the literature.

Mentoring Outcomes. Queralt (1982) studied 430 faculty members and administrators with academic rank and found that mentored faculty experienced a higher level of career development and success than unmentored faculty, when criteria such as publication status, grant acquisition, and leadership role were used. Merriam, Thomas and Zeph (1987) reviewed 26 empirically based studies on mentoring in higher education and found that the research on faculty-to-student and faculty-to-faculty mentoring was sparse and ambiguous, but the research on the impact of mentoring on administrators seemed to support it as a factor in the career development of both male and female administrators in higher education. Collins (1983) and Zey (1984) found that mentors help proteges feel closer to (that is, they feel more included by and more a part of) the organization. Levinson (1978) and Kram (1985) found that as proteges learn the ropes of the organization and are promoted up its ladder, they are less likely to leave it (that is,
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they have a lower intent to turnover, which results in lower turnover. Zey (1984) found that the mentoring process humanizes the work environment for the protégé and is a mechanism through which the protégé is integrated into the organizational culture.

Kozlowski and Ostroff (1987) suggest that mentors provide organizational newcomers (that is, their proteges) with special organizational information with respect to the norms, procedures and policies. In other words, because of mentoring, these individuals experience less institutional isolation. Greenhaus et al. (1990) found that sponsorship was associated with favorable assessments of promotability, low incident of career plateauing and high levels of career satisfaction. However, they also found that, consistent with Kraiger and Ford's (1985) meta-analysis on race effects on performance ratings, that African-Americans may be excluded from opportunities for power and integration within organizations, which may then be detrimental to their job performance ratings (and thus promotability, etc.). In this sense, they experience high incidents of institutional isolation.

Furthermore, Fagenson (1988) found that proteges reported having more power than people without mentors. Other mentoring outcomes are enhanced work effectiveness (Kram, 1985); job success (Roche, 1979; Stumpf & London, 1981; Hunt & Michael, 1983; Fagenson, 1989); higher salaries (Roche, 1979); promotion decisions (Stumpf & London, 1981; Hunt & Michael, 1983); and career mobility, Scandura (1992).

In summary, participation in mentoring results in both positive individual and organizational outcomes. Individuals who are mentored experience greater visibility and
access to power and influence in the organization and have their psychosocial needs for support and affirmation met; the organization in which mentoring is conducted has enhanced work effectiveness, lower turnover, and higher levels of organizational commitment.

\textit{H9a}: Mentored individuals feel less institutionally and socially isolated than unmentored individuals.

\textit{H9b}: Proteges who report high levels of career mentoring will report low levels of institutional isolation.

\textit{H9c}: Proteges who report high levels of psychosocial mentoring will report low levels of social isolation.

**Correlates of Mentoring: Individual Characteristics**

**Race.** Thomas (1990) noted that while Caucasian proteges have almost no developmental relationships with persons of other races, that African-American proteges form 63\% of their developmental relationships with Caucasians. African-Americans are more likely than Caucasians to form relationships outside formal lines of authority and outside their departments. In fact, same-race relationships were found to provide more psychosocial support than cross-race relationships. Because of the forced bicultural existence of minorities and women in organizations, these members have learned to compensate for the lack of this support (Bell, 1990). However, there has been little research published to identify what effect these compensatory practices have had on these individuals' socialization or how the organizational goals have been impacted. Dickens and Dickens (1982) have proposed that there is a different career stages model for African-Americans based upon Jackson (1978) and Cross's (1976) theories of African-
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American identity development. They stated that while African-American life development is parallel in many ways to that posited by and Levinson et al. (1978) for the generic adult life development and Schein (1978) for the generic career development, it has some added complexities. Jackson (1978) stated that African-Americans progressing through the career stages spend more time grappling with issues of inclusion and professional identity associated with the early career phase. In addition, the implicit psychological contract is more complex for the minority employee because it includes issues of race and the history of race relations or bias. [This contract is where mutual expectations are set.] One can make an inferential leap that these same issues are associated with other ethnic minorities, which again make mentoring practices (and other socialization tactics) problematic. There are other indications that there are additional complexities with the socialization of women and minorities that have not as yet been the subject of research.

In summary, cross-cultural mentoring relationships, where mentor and protégé are from different genders and/or races, have an effect on whether or not a mentoring relationship develops and what the outcomes of that relationship are.

\[
\begin{align*}
H10a: & \quad \text{Racial minorities are less likely to be involved in mentoring relationships than Caucasians.} \\
H10b: & \quad \text{Mentored minorities receive more psychosocial support when the mentor is of the same race and/or gender than when they are in a cross-cultural relationship.} \\
H10c: & \quad \text{Mentored racial minorities receive less psychosocial support and less career mentoring than mentored Caucasians.}
\end{align*}
\]
Gender. Research has consistently shown that mentoring relationships are particularly important for women, since they face gender-related barriers to promotion (Ragins & Sundstrom, 1989). In addition, mentors can buffer women from various types of discrimination, assisting them in becoming "fast-tracked" for advancement (Collins, 1983; George & Kummerow, 1981; Halcomb, 1980; Vertz, 1985). Mentors can provide support, advice, and career guidance; confer legitimacy and alter stereotypic perceptions; provide reflected power; build self-confidence; train in the intricacies of corporate politics; provide inside information usually obtained through the "good old boys' network"; provide feedback important in overcoming the "male managerial model" and provide a role modeling function (Ragins, 1989).

This research also shows, however, that women face more barriers to obtaining a mentor than men do (Kram, 1985; Hunt & Michael, 1983; Noe, 1988; Ragins, 1989). Women face gender-related interpersonal and organizational barriers which may affect their relationships with potential mentors. Ragins and Cotton (1991) have identified several barriers which inhibit the development of mentoring relationships: (1) lack of access to mentors; (2) an unwillingness to mentor; (3) expecting lack of approval of others; (4) fear of misinterpretation; and (5) fear of initiating.

Gaskill (1991) found no significant differences in male and female proteges' perceptions of career development mentoring received. Support for this was also found in studies by Dreher and Ash (1990) in which no differences were found in career mentoring for 320 male and female managers and professionals. Whitely, Dougherty and Dreher
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(1992) found that the gender of the protégé was unrelated to the amount of career mentoring received. However, Ragins and McFarlin (1990) found that in cross-gender relationships, when controlling for differences in prior experience with mentors, organizational level and other demographic variables, perceived mentor roles for role modeling and social roles had significant gender interactions. In fact, cross-gender proteges were less likely than same-gender proteges to report engaging in after-work social activities with their mentors.

In summary, gender status has an impact on access to mentoring relationships, the type of mentoring received, and the perceptions of mentoring roles, and it is hypothesized to work in the following ways:

\[ H11a: \text{Mentored females receive less psychosocial mentoring than mentored males}. \]

\[ H11b: \text{Mentored females receive less career mentoring than mentored males}. \]

Age. The mentoring literature generally supports older mentor/younger protégé relationship (Kanter, 1977; Levinson et al., 1978). The career needs and development tasks of younger and older workers differ (Kram, 1985; Hall, 1976; Schein, 1978). Kram suggested that younger employees are more likely to be involved in secondary mentoring than classical mentoring because of the pace of organizational change and its attendant individual career transitions. Kram (1985, 1986) also suggested that there may be special problems involved in establishing mentoring relationships when proteges are the same age or older than the mentor. Ragins (1989) also found that older individuals with a long history of employment at the organization are more likely to have exposure to potential
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members and may perceive fewer barriers to their success than young newcomers. Finally, Ragins and McFarlin (1990) found that younger proteges were more likely than older proteges to report that their mentors provided role modeling and parenting functions. In addition, Whitely et al. (1992) found that protégé age was negatively related to the amount of career mentoring received.

In summary, age has an effect on the type of mentoring needed and offered, as well as the types of problems encountered in establishing mentoring relationships.

H12a: Older proteges experience higher levels of career mentoring than younger proteges.

H12b: Younger proteges experience higher levels of psychosocial mentoring than older proteges.

There are also differences in the way mentoring programs are structured that may affect the extent to which mentoring can alter individuals’ sense of institutional and social isolation. A particular characteristic supported by the literature is the distinction between a formal and informal mentoring program.

Organizational Characteristics as Barriers

Formal vs. informal mentoring. Formal mentorships are managed, structured, formally recognized and sanctioned by the organization. Informal mentorships are spontaneous relationships which arise between the individual who wants to help (mentor) and the individual who is receptive to the advice and assistance of the mentor (protégé). The formal relationships may arise based on a review of the prospective protégé’s personnel file and subsequent assignment to a mentor who seems to match with
the potential protégé on organizationally determined criteria; or it may be a completely random assignment. On the other hand, the informal relationship arises out of interactions between the individuals, as a result of which both individuals view the potential relationship as worthwhile in initiating (Chao, Walz, & Gardner, 1992).

Riley and Wrench (1985) found that individuals in a formal mentorship program reported higher levels of career success and satisfaction than unmentored individuals. Chao, O'Leary, Walz, Klein, and Gardner (1989) suggested that the formal mentorship program has greater impact because the mentor is likely to "convey the necessary knowledge and information concerning the managerial history, goals, language, politics, people and performance" (c.f. Chao, Walz & Gardner, 1992:462). Chao et al. (1992) found that proteges of informal mentoring relationships advanced more quickly and received higher salaries than those in formal mentoring relationships and those who were unmentored. There was no difference between perceptions of psychosocial support between the formally and informally mentored groups. For all outcome variables tested (organizational socialization, intrinsic job satisfaction and salary), proteges in informal mentorships reported more favorable outcomes than unmentored individuals. However, the differences between formally and informally mentored individuals were not large. The outcomes for proteges in formal mentorships were generally not significant from the other two groups.
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In summary, there are mixed results reported on this issue of the difference between formal and informal mentoring programs. The reported study may provide additional insight into this controversy.

H13: Individuals who participate in informal mentoring relationships will experience lower levels of institutional and social isolation than individuals in formal programs.

Because the proposed study is cross-sectional, no causal relationships can be determined. However, this study begins an examination to determine if fruitful possibilities exist for further exploration of two particular organizational outcomes: affective organizational commitment and intent to turnover. Two of the research-supported outcomes of successful organizational socialization practices (and mentoring is particular) are the individual's feeling of attachment to the organization (affective commitment) and actual organizational turnover. Therefore, it is conceivable that if mentoring is successful, it should decrease individual and social isolation, which would make individuals feel more attached to the organization and simultaneously decreases their intent to leave the organization (intent to turnover). Thus, affective commitment and intent to turnover are included in Figure 1 as possible outcomes on criterion constructs.

Possible Organizational Outcomes

Affective Organizational Commitment

The organizational commitment literature suggests that an individual who does not feel as if (s)he is a part of the organization is unlikely to feel committed to the organization (Mowday, Porter & Steers, 1982). Organizational commitment has been conceptualized
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most commonly as "an affective attachment to the organization that is characterized by a sharing of values, a desire to maintain membership, and a willingness to exert effort on behalf of the organization (Porter, Steers, Mowday & Boulian, 1974). Mowday, Porter, and Steers (1982) suggest that there are personal, organizational and non-organizational factors which lead to an individual's commitment to the organization during early membership. Similarly, Meyer and Allen (1988) linked work experiences and organizational commitment during the first year of employment. Therefore, the way individuals experience the workplace is posited to affect their level of organizational commitment. The isolation view of workplace experiences is, therefore, consistent with Meyer and Allen’s results.

There have been a number of commitment-related concepts and measures which have resulted in a lack of consensus in how commitment is defined and measured. Thus, O'Reilly and Chatman (1986) developed the construct of "psychological attachment", which they argue is the underlying dimension of organizational commitment -- the psychological bond which links the individual and organization. It is conceivable that institutional and/or social isolation decrease or inhibit the formation of the individual's psychological attachment to the organization, which then decreases the engagement of the individual in extra-role or prosocial behaviors.

Meyer and Allen (1984) conceptualized organizational commitment as consisting of two dimensions, affective and continuance organizational commitment. In 1991, they developed a 3-component model of organizational commitment in which measures of
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affective, continuance and normative commitment to the occupation were developed. These three approaches to commitment view it [commitment] as a psychological state in which the employee's relationship to the organization is characterized and where the decision to remain or leave the organization is impacted. Employees with a strong affective commitment to the organization remain because they want to. Those with a high level of continuance commitment stay with the organization because they need to. Those who have a high level of normative commitment remain because they feel that they should.

Antecedents of affective organizational commitment include work experiences and personal, structural, and job-related characteristics (Mowday et al., 1982). Meyer and Allen (1991) found that employees whose workplace experience and expectations are consistent and satisfy their basic needs, are affectively more committed to the organization than those individuals whose experiences and expectations were incongruent.

In summary, an individual's affective commitment to the organization is affected by the way the individual experiences the workplace. Therefore, it is conceivable that the extent to which individuals feel organizational and socially isolated will affect the extent to which one feels affectively committed to the organization.

**H14:** *The more individuals feel isolated, the less committed they feel toward the organization.*

The organizational commitment literature suggests that individuals' experiences within the organization may decrease the likelihood that they will terminate their association with the organization. Conversely, these experiences may increase individuals'
Examinaion of Mentoring Effects on Isolation

desires to leave the organization. This perspective is viewed through an "intent" to behave, rather than the actual behavioral consequence.

**Intent to Turnover**

Similar to other work on attitudes done by Fishbein (1967) and others, one's affective responses to the job lead to behavioral intentions, such as the intent to turnover. Steers and Mowday (1981) suggest that one's affective response to the organization such as organizational commitment and job satisfaction may lead to an increased desire or intent to remain or leave the organization. The individual may not actually leave based on the intent to leave, because there are a number of intervening variables or moderators between the intent and actual behavior. Similarly, one's feelings of isolation may also affect one's intent to turnover.

Individuals may develop intentions to behave in particular ways such that the actual behaviors may in fact result. In this case, an individual who intends to leave the organization because of the way (s)he experiences the organization, may actually turnover.

**H15a:** Individuals who experience high levels of institutional and/or social isolation have higher intentions to turnover.

**H15b:** Mentored individuals have lower intentions to turnover than unmentored individuals.

In summary, institutional isolation is posited to influence the individual's attitude toward the organization. That is, individuals who feel that they have access to information that will enable them to be successful and who have developed social support networks which fulfill their psychosocial needs will feel differently about their organizational
experience than will individuals who do not have these elements. Therefore, one would expect isolation (both institutional and social) to affect whether or not the individual intends to remain with the organization (retention), and the level of an individual’s organizational commitment or identity.
CHAPTER 3

Research Methods

This chapter describes the research protocol in terms of (1) the sampling and data collection procedure, (2) the survey instrumentation, and (3) the analytical tools. The study was a cross-sectional analysis of survey responses from university faculty in public universities in Virginia which builds upon a previous study described in Appendix B.

Sample

The sample consists of faculty from five doctoral-granting universities from one state in the Southeastern United States. While a sample of work organizations would also serve as a further test of the PIES measure (described below), time limitations restricted the use to an academic sample. Academic faculty were chosen for three reasons. First, little research has been conducted on the attitudes and behaviors of academic faculty in relation to differential work experiences. Secondly, the available literature suggests that women and minorities in the academic ranks find barriers to their success similar to those experienced by women and minorities in other workplaces (Johnsrud & Wunsch, 1991; Knox & McGovern, 1988; Merriam & Zaph, 1987; Obleton, 1984; Queralt, 1982; Sandler, 1986). Finally, using academic faculty who had earned doctorates controls, in some measure, for human capital investment. A similar sample in a business organization would require a large organization to gain the same insights, because of the possible variability in human capital investment. Therefore, the use of this academic sample was timely and appropriate.
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Each university's institutional research department was requested to generate a random stratified sample of its faculty population with the following characteristics: (1) All African-American, Hispanic-American and Asian-American faculty with master's and/or doctorate degrees at these institutions [The total population of these groups must be surveyed because of the small numbers available]; (2) 500 Caucasian faculty members with doctorate degrees, with 50% each of males and females; and (3) All incoming, tenure-track faculty with doctorates. Because one might expect different attitudes from part-time and/or short-term faculty, only faculty whose positions were on a tenure track were considered for this study. Surveys were mailed to tenure-track faculty at the participating institutions as follows:

<table>
<thead>
<tr>
<th>Institution</th>
<th>Caucasian Sample</th>
<th>Minority Sample</th>
<th>Total Tenured or Tenure-Track Faculty Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>600</td>
<td>60</td>
<td>1,267</td>
</tr>
<tr>
<td>2</td>
<td>520</td>
<td>80</td>
<td>630</td>
</tr>
<tr>
<td>3</td>
<td>530</td>
<td>70</td>
<td>600</td>
</tr>
<tr>
<td>4</td>
<td>232</td>
<td>50</td>
<td>550</td>
</tr>
<tr>
<td>5</td>
<td>418</td>
<td>100</td>
<td>800</td>
</tr>
</tbody>
</table>

A total of 2,660 surveys were mailed. The survey was mailed to all subjects on November 4, 1994, in which a letter was attached explaining the nature of the survey and requesting a response before December 1, 1994. Follow-up was conducted approximately two weeks later, during which time a postcard was mailed to all subjects, requesting that they return the survey, and local subjects were either sent electronic mail messages or contacted by telephone. The response rate was 29% (765 responses); of those, 720 were usable, which gives an adjusted response rate of 27%. Of the total
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sample, 65% were male; 35%, female; 5.6%, African-American; 6.6%, Asian-American; 1.2%, Hispanic-American, and 86.8%, Caucasian-Americans.

The number of responses and associated response rate, by school:

<table>
<thead>
<tr>
<th>Institution</th>
<th>Caucasian Responses</th>
<th>Response Rate</th>
<th>Minority Responses</th>
<th>Response Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>219</td>
<td>36.5%</td>
<td>37</td>
<td>62.0%</td>
</tr>
<tr>
<td>2</td>
<td>123</td>
<td>23.6</td>
<td>11</td>
<td>13.8</td>
</tr>
<tr>
<td>3</td>
<td>61</td>
<td>11.5</td>
<td>10</td>
<td>14.3</td>
</tr>
<tr>
<td>4</td>
<td>97</td>
<td>41.8</td>
<td>21</td>
<td>42.0</td>
</tr>
<tr>
<td>5</td>
<td>122</td>
<td>29.2</td>
<td>11</td>
<td>11.0</td>
</tr>
</tbody>
</table>

Measures

All variables are operationalized from survey responses. Respondents were asked to indicate their race, age, gender, institution, department, and type of mentoring relationship; other variables are measured by multiple-item scales. Table 2 provides a listing of all variables, constructs, and instruments used in this study.

Perceptions of Inclusion/Exclusion Survey (PIES). Two types of isolation were measured by the Perceptions of Inclusion/Exclusion Survey (PIES), a 28-item, two-dimensional scale developed and tested in the previous study. Items were derived from critical incidents in the work experiences of African-Americans and women. The response categories for all items were a 5-point, extent of agreement scale, with the mean of the
Examination of Mentoring Effects on Isolation

item scores providing the isolation score for each respondent. The items for the social and institutional isolation scales are provided in Table 3.

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Insert Table 3 Here
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A more detailed description of the scale development process is provided in Appendix B. Internal consistency reliability estimates (alpha) for the institutional and social isolation scales were .87 and .84 respectively, in the pilot study (N =146). This study’s psychometric results are reported in the next chapter under Hypothesis 1. The correlation between institutional and social isolation in the pilot study was .40, suggesting the two measures are reflecting different, if not independent constructs.

For construct validation purposes, Dean’s (1961) social isolation scale and the normlessness and powerlessness scales from Neal and Seeman (1964) were included in the survey. In theory, the PIES social isolation scale should relate more strongly to the Dean measure than the other two, and the institutional isolation scale should align more closely with the powerlessness scale. The items for these three scales are provided in Table 4 (Dean, 1961).

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Insert Table 4 Here
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**Dean’s General Alienation Measure.** Dean (1961) developed a three-part general alienation measure which included the following subscales: Powerlessness (1964), Normlessness (1961), and Social Isolation (1961). The total alienation scale consists of
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24 items presented in a 5-point Likert format, with response categories from 5 (strongly agree) to 0 (strongly disagree), with maximum scale score of 96 in which individual suffers highest alienation. The reliabilities of these subscales (split-half method and corrected by the Spearman-Brown formula) are .78 for powerlessness; .73 for normlessness; and .84 for social isolation. The total scale had a .78 reliability. The items for these subscales is included as Table 4.

Insert Table 4 Here

Mentoring Roles Questionnaire. Perceived mentoring roles and actual mentoring received were measured by Noe's (1988b) Mentoring Role Instrument (MRI). This is a 21-item, 5-point Likert-type scale which measures the extent to which the statement describes the relationship between the protégé and the mentor. The response categories range from "from a very slight extent" (1) to "to a very large extent" (5), with the average score for each subscale used for the analyses. The psychosocial functions subscale consists of 14 items, while the career-related functions subscale consists of 7 items. Reliability estimates (alpha) for the psychosocial and career-related .84 and .79, respectively. These reliabilities are within acceptable limits, and because better measurements of these constructs were not available, these measures were used. Ragins and McFarlin (1992) suggested that this scale was deficient because it uses 1 or 2 items to measure some of the roles, thus restricting the reliability estimates. They also suggested that Noe's exploratory factor analysis suggested some conceptual ambiguity where several
development items loaded on the psychosocial factor function. However, Chao et al. (1992) used Noe's (1988) scale and obtained similar reliability coefficients. Because the 21-item measure has reasonable reliabilities, the Noe measure was utilized in this study. The items in this measure are provided in Table 5.

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Insert Table 5 Here
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**Need for Affiliation Measure.** The need for affiliation measure was part of the Manifest Needs Questionnaire developed by Steers and Braunstein (1976). This instrument was designed to measure four needs: Achievement, Affiliation, Autonomy and Dominance, utilizing work settings. Each of the four subscales measures one of the aforementioned needs on a seven-point scale. Responses ranged from "Always" to "Never", with the mean of the component item scores used as the scale score. This questionnaire was developed and construct validated using three empirical studies, with management students, white collar workers from a car company and hospital employees, respectively. The alpha coefficient of internal reliability (or Cronbach's alpha) was .66 and a test-retest correlation over two weeks with a subsample, of .72. For this proposed research, this subscale will be revised to reflect five response categories, from strongly disagree (1) to strongly agree (5). The items on the Need for Affiliation scale are listed in Table 6.
Intent to Turnover Measure. This is a 3-item 5-point Likert-type measure derived from the Michigan Organizational Assessment Questionnaire and is described in Cook, Hepworth, Wall & Warr (1981). Two of the three items have response categories of disagree strongly (1) to agree strongly (5); while the third item has response categories ranging from not very likely (1) to very likely (5). However, the wording of these questions was changed to be in line with the other questions in the questionnaire, so that "how likely" becomes the extent to which one agrees. Cronbach's alpha for the original scale is .81. The average score is utilized for this subscale. The items on the intent to Turnover scale are provided in Table 6.

Affective Commitment Measure. The Affective Commitment Scale was developed by Meyer and Allen (1984), as an 8-item 5-point Likert-type scale, tested on two samples in which Cronbach's alpha was .88 and .84, respectively. McGhee and Ford (1987) lent support to the conceptual distinction between affective commitment and continuance commitment and supported the Affective Commitment Scale which had a Cronbach's alpha of .88. The average score is utilized for this measure. The items on the Affective Commitment scale are provided in Table 6.

Institutional Workforce and Department Demographics

Information on the demographics of the institution and department were obtained from archival data collected by the institution and forwarded by them as a matter of public
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record to the State Council of Higher Education (SCHEV). These records indicated the percentage of males and females by racial groups (that is, Caucasian-Americans, African-Americans, and Asian-Americans) in the institution and different colleges/departments at the institution.

Analyses

There are a number of hypotheses tested in the present study.

HI: Organizational incumbents experience isolation on two separate dimensions: Institutional isolation and social isolation.

The first hypothesis examines whether or not institutional isolation and social isolation exist as two separate constructs. To test this hypothesis, a factor analysis approach was utilized, first with exploratory factor analysis, followed by confirmatory techniques in which the items from the PIES subscales were examined. Factor analysis techniques, in general, condense information contained in a number of items (variables) and summarizes them into a smaller set of new composite dimensions which define the constructs underlying the original variables (Hair, Anderson, Tatham, & Black, 1993). In factor analyses, all variables are simultaneously considered. Confirmatory factor analyses compares the exploratory model with other plausible models either supported by the literature or which the researcher is hypothesizing, and assesses the goodness of fit of the data with each model.

Several decisions must be made in exploratory factor analysis. First, the researcher determines whether to use principal component or common factor analysis. Secondly, the
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type of rotation must be determined, whether oblique or orthogonal; and third, the criteria for the number of factors to be extracted must be determined.

The two most frequently employed factor analysis techniques are principal component analysis and common factor analysis. Common factor analysis is utilized when one is attempting to identify the underlying dimensions which may not be easily recognized, whereas the analyst utilizes principal component factor analysis because the focus is on prediction and the analyst has prior knowledge suggesting that specific and error variance represent a relatively small portion of total variance. In this study, the researcher has little knowledge about the amount of unique or error variance, thus, common factor analysis was utilized.

In addition, an oblique rotation was utilized rather than an orthogonal one. An oblique rotation indicates that the researcher expects the factors to be correlated; an orthogonal rotation suggests that the factors are totally independent of one another. Because one might expect that attitudes about workplace experience should be correlated to some extent, this study used an oblique rotation.

A scree tail test was utilized to determine, preliminarily, which factor solution would be acceptable. A scree tail test is an approach used to identify the optimum number of factors that can be extracted before the amount of unique variance begins to dominate the common variance structure (Hair et al., 1993). Basically, the point at which the tail begins to straighten out is considered the point at which the maximum number of factors should be extracted. In addition to the scree tail test, however, the researcher selected the
number of factors based on the factor structure that best represented the underlying relationship of the variables. The greater the number of factors extracted, the more difficult the process of explaining the relationship among the variables. Based on the results of the pilot study, the researcher instructed the computer to extract two through five factors. This approach was justified because the researcher had a theoretical basis for a two-factor structure and was testing to determine if this two-factor structure was a better explanation than three- to five-factor solutions.

The first hypothesis was supported if (a) the confirmatory factor results supported the exploratory results; and (b) measurable evidence of discriminant validity had been demonstrated through examination of the correlations of proposed scales with similar and dissimilar constructs.

To test item (b), the two subscales were correlated with the summation of powerlessness, normlessness, and social isolation (which jointly became "alienation"). Based on previous formulations. Correlation merely seeks to study the degree of association between two variables, in this case between the subscales. In general, subscales which are totally independent of each other should have a low correlation; those which are measuring approximately the same construct should have high correlations.

For hypotheses calling for tests of mean differences on the institutional isolation and social isolation (PIES) subscales, a general linear model analysis of variance procedure (GLM ANOVA) was employed. This model is a special case of OLS (ordinary least squares) and allows the handling of unequal sample sizes. In the GLM model, the
deviation of each treatment mean from the grand mean is weighted by the sample size. In addition, this ANOVA procedure deals with differences between or among sample means but does not impose a restriction on the number of means. The GLM ANOVA procedure also allows one to examine two or more independent variables simultaneously, examining the individual effects of each variable separately and the interacting effects of two or more variables. Like regression analysis, ANOVA should only be conducted on continuous, dependent variables.

Because a number of hypotheses are tested, the researcher needed to ensure that she maintained the probability of making any Type I errors at alpha, thus controlling the experiment-wise or analysis-wise alpha level. After a complete set of comparisons among the group means, the probability that this family of conclusions will contain at least one Type I error is called the family-wise error rate (FW). In general, the family-wise error rate is less than the error rate per experiment. Three post hoc procedures were considered in this research to control alpha levels: (1) Duncan's New Multiple Range Test; (2) Tukey's Honestly Significant Difference (HSD) Test; and (3) Dunnett's Test. Only in those cases where the results differ will there be distinctions made between the tests.

Duncan's test allows means that are farther apart in an ordered series to have a larger significance level and results in a high family-wise error rate. Tukey's Honestly Significant Difference (HSD) Test fixes the experiment-wise error rate at alpha against all possible null hypotheses, not just the complete null hypothesis. This test is generally regarded as the best procedure for controlling the family-wise error rate when one makes all pairwise
comparisons among many group means. The Tukey HSD allows one to keep the
maximum FW at alpha no matter how many means are compared. Dunnett's Test allows
one to compare one control treatment and each of several experimental treatments. This
test is more powerful than Tukey's in that the family-wise error rate is held at or below
alpha. However, one is comparing all groups, individually, against a single mean. It does
not reflect whether or not the "treatment" groups are different from one another. The
following hypotheses will use variations of these tests:

\[ H2: \quad \text{African-Americans, Hispanic-Americans, and Asian-Americans feel more institutionally and socially isolated than their Caucasian-American counterparts.} \]

\[ H3: \quad \text{Females, on average, feel more institutionally and socially isolated than do males.} \]

\[ H4: \quad \text{African-American women experience higher levels of institutional and social isolation than any other racial minority or gender group.} \]

\[ H5a: \quad \text{Older individuals experience a lesser sense of institutional isolation than younger individuals.} \]

\[ H5b: \quad \text{Younger individuals experience a greater sense of social isolation than older individuals.} \]

\[ H9a: \quad \text{Mentored individuals feel less institutionally and socially isolated than unmentored individuals.} \]

\[ H10b: \quad \text{Mentored minorities receive more psychosocial mentoring when the mentor is of the same race and/or gender than when they are in a cross-cultural relationship.} \]

\[ H10c: \quad \text{Mentored racial minorities receive less psychosocial mentoring and less career mentoring than mentored Caucasians.} \]

\[ H11a: \quad \text{Mentored females receive less psychosocial mentoring than mentored males.} \]
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*H11b:* Mentored females receive less career mentoring than mentored males.

*H12a:* Older protégés receive higher levels of career mentoring than younger protégés.

*H12b:* Younger protégés experience higher levels of psychosocial mentoring than older protégés.

*H13:* Individuals who participate in informal mentoring relationships will experience lower levels of institutional and social isolation than individuals in formal programs.

H6 will be tested using an analysis of covariance procedure (ANCOVA). ANCOVA is linked to two objectives: (1) to eliminate systematic bias; and (2) to reduce within-group or error variance. In this case, the impact of need for affiliation is hypothesized to covary with an individual’s perceived isolation. Thus, the effect of need for affiliation must be controlled so that the main effect of age on isolation can be determined.

*H6a:* Older workers experience more institutional isolation than younger workers, even after controlling for need for affiliation.

*H6b:* Younger workers experience more social isolation than older workers, even after controlling for need for affiliation.

The next hypotheses were tested, utilizing a simple correlation, in which the significance of the strength of the relationships between institutional (social) isolation and (1) subgroup (minority women) and (2) levels of mentoring were examined.

*H7:* Among minority women, the experience of isolation (institutional and social) is inversely related to the ratio of minority women in the organization.

*H8:* Among minority women, the experience of isolation (institutional and social) is inversely related to the ratio of minority women in the department.

*H9b:* Protégés who report higher levels of career mentoring will report low levels of institutional isolation.
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**H9c:** Proteges who report high levels of psychosocial mentoring will report low levels of social isolation.

**H14:** The more individuals feel isolated, the less committed they feel toward the organization.

**H15a:** Individuals who experience high levels of institutional and/or social isolation have higher intentions to turnover.

**H15b:** Mentored individuals have lower intentions to turnover than unmentored individuals.

The following hypothesis was tested utilizing proportions through chi-square analysis.

**H10a:** Racial minorities are less likely to be involved in mentoring relationships than Caucasians.

The differences between personal characteristics such as race, gender, and age were not explicitly hypothesized for intent to turnover and affective commitment. However, those analyses were also conducted. To the extent that their results inform further about institutional and social isolation or the nature of the sample, they were included in Chapters 4 and 5. However, these chapters summarize and discuss the results of the stated hypotheses.
CHAPTER 4

Results

The purpose of this chapter is to present the results of the statistical analyses. The results are grouped according to the type of hypothesis; specifically, the first section details the results relating to institutional isolation and social isolation; the second, relating to gender and race; and the third, relating to mentoring. All tables are located in the Tables section of this study.

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Insert Tables 7a and 7b Here
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Results Relating to Institutional and Social Isolation

Construct Validity Evidence. The total sample of 765 respondents was randomly assigned into two groups, one the exploratory factor analysis sample; the other, the confirmatory factor analysis sample, to test whether organizational incumbents experience isolation on two separate dimensions. The 28 items from the social isolation and institutional isolation subscales of the Perceptions of Inclusion/Exclusion Survey (PIES) were tested for their factor structure in factor analyses. A common exploratory factor analysis was conducted on a sample of 383 subjects with complete data, from the 765 original participants. The purpose was to examine whether the data supported use of two separate factors, institutional isolation and social isolation. The heuristic for the factor loadings was based on Hair et al. (1993): 30% is significant, 40% is more important, 70% is very significant. Only loadings equaling or exceeding .40 were utilized in this analysis.
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oblique rotation was utilized, because one would not expect that factor relating to individuals' isolation experiences would be orthogonal. The results reflected a factor structure which was substantially equivalent to that of the pilot study. Items which loaded onto more than one factor were re-examined. Those items whose meaning was unclear or whose substantive meaning was inconsistent with the factor structure were deleted. Twenty-four of the original 28 items had factor loadings exceeding .40.

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Insert Tables 7 Here
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A subsequent review of the remaining 24 items (15 items for institutional isolation and 9 for social isolation) revealed that substantive meaning of the factors was consistent with the theorized two-dimensional factor structure; that is, items which loaded on institutional isolation were consistent with the construct definition of institutional isolation. Items that were deleted either had wording that was ambiguous (could have been interpreted in several different ways or where the wording was such that interpretation of the item was impossible) or loaded on social isolation when their items actually were consistent with institutional isolation. When more than two factors were generated, the new loadings represented "leeching" from the first two factors. The additional factors did not explain significantly more variance; nor did they include items which had not previously loaded on the first two factors. Thus, their contribution to understanding the underlying relationships was insignificant or nonexistent.
A confirmatory factor analysis was conducted on the second sample (n=382) which confirmed that the data did, in fact, collapse onto two factors, "institutional isolation" and "social isolation". The "Calis" procedure (Covariance analysis of linear structural equations) in SAS was used to estimate the parameters and to test the appropriateness of the linear structural equation models.

This procedure provided fit measures for the submitted model. The appropriateness of the model was determined by comparing the predicted models' fit levels with standard levels of acceptability. The four indices used in this procedure were Goodness of Fit Index (GFI), GFI Adjusted for Degrees of Freedom (AGFI), Root Mean Square Residual (RMR) and Bentler's Comparative Fit Index. Generally, the closer the fit index is to 1.0 (with a fit >= .90 being excellent) and the closer the RMR is to 0.0 (with a fit of .05 or less being good), the better the fit. However, the fit index which is greater than .70 is a modest fit and would be within acceptable limits. Several models were tested to determine the best fit of the data. None of the models includes the mentoring subscales. The goodness of fit index of the PIES subscales alone would have been helpful in supporting its factor structure. However, a more stringent test was to include all items in a model in which similar and dissimilar scales were analyzed, to determine if the factor structure would be reproduced as hypothesized. Thus, several competing models were examined for this analysis.
Examination of Mentoring Effects on Isolation

Model 1 included the PIES, Alienation, Need for Affiliation, Intent to turnover, and Affective commitment subscales. Model 2 included the PIES, Alienation, Intent to Turnover, and Affective Commitment subscales. Because the Need for Affiliation Cronbach’s alpha was below acceptable limits (alpha = .43), the confirmatory factor analysis was re-run without this subscale. This model was better than the model with all subscales. Model 3 was run, in which the PIES social isolation measure was combined with Seeman’s social isolation, to see if having a single construct for social isolation was a better fit than having two factors. These indicators were not as good a fit as with institutional and social isolation as separate factors. In Model 4, the analysis was run with the PIES subscales alone, because the greater the number of items, the greater the likelihood of a poorer fit. This analysis indicated a better data fit than any of the preceding models.

An internal consistency approach (Cronbach’s alpha) was used to determine the reliability of the social and institutional isolation subscales. A Cronbach’s alpha of >=.70 indicates that the subjects responded consistently to the individual items related to a particular dimension within each subscale.

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Insert Table 9 Here
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These analyses suggest that isolation does, in fact, exist on two dimensions: social isolation and institutional isolation. In fact, the internal consistency of the hypothesized
Examination of Mentoring Effects on Isolation

PIES measure is superior to the existing Alienation measure (alpha = .89, for institutional isolation; .79 for social isolation in the PIES scales; .77 for the Alienation measure).

Results Relating to Race and Gender

The second set of hypotheses related to a comparison between institutional isolation and social isolation experienced by race, gender, and age classification (that is, “older” or “younger”).

The first hypothesis in this set (H2) was tested by mean differences on the institutional isolation and social isolation (PIES) subscales between the Caucasian-American, African-American, Asian-American and Hispanic-American sub-samples. There were insufficient numbers of Hispanic-Americans in the sample to conduct statistically or practically significant tests, hence future discussion of minority groups will include only African-Americans and Asian-Americans. As hypothesized, there was a statistically significant difference, by race, in the level of institutional isolation felt. Asian-Americans felt more institutionally isolated than Caucasian-Americans. However, contrary to prediction, African-Americans’ level of institutional isolation was not significantly different from that experienced by Caucasian-Americans.

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Insert Tables 10a and 10b Here
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There was a statistically significant difference in the level of social isolation felt, on average, between the races. As predicted, African-Americans felt more socially isolated than Asian-Americans or Caucasian-Americans (average social isolation was 2.36, 2.07,
1.83, respectively). In addition, Asian-Americans felt significantly more socially isolated than Caucasian-Americans. Seeman's social isolation scale results are not included, because the internal consistency of this scale was below acceptable limits (alpha = .42).

There was no race effect for intent to turnover or affective commitment. African-Americans, Caucasian-Americans and Asian-Americans had the same affective commitment to the organization and did not differ in their intentions to turnover.

The next hypothesis (H3) was tested by mean differences on the institutional and social isolation (PIES) subscales between the male and female sub-samples, utilizing a simple t-test.

Contrary to the prediction, there was not a statistically significant difference, by gender, in the levels of institutional isolation. However, as predicted, there was a significant difference in the level of social isolation, with females experiencing greater social isolation than males (2.03, 1.79, respectively). Females also had higher intentions to turnover than males (2.18, 2.03, respectively) but did not differ from males in their affective organizational commitment.

A GLM ANOVA was utilized to determine whether African-American women experienced higher levels of institutional and social isolation than any other race and gender subgroup. This procedure measured the extent to which there were differences between the other groups and was followed by use of both Tukey's t-test and Duncan's
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post-hoc analyses, both of which compared all groups against each other. There was a
significant difference, by subgroup in the overall model; but only Duncan’s post-hoc test
indicated that Asian-American females were significantly different. The more conservative
Tukey’s HSD did not differentiate between Asian-American females and any other racial-
gender subgroup.

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Insert Table 12a Here
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As predicted, African-American females felt more socially isolated than any other
group, except African-American males or Asian-American females. African-American
males, Asian-American males and Caucasian-American females felt more socially isolated
than Caucasian males. In other words, all groups except Asian-American females, to
some extent, experienced more social isolation than Caucasian-American males.

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Insert Table 12b Here
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There were subgroup differences in intent to turnover, with African-American males
experiencing greater intentions to turnover than Caucasian males (2.60, 1.99,
respectively). There were no subgroup differences in affective organizational
commitment.

Hypotheses 5a and 5b examined the difference in institutional and social isolation by
age group classification. These hypotheses were tested, first by dividing the groups into
age categories of "younger" and "older", where individuals 45 years old or younger were
Examination of Mentoring Effects on Isolation

in category 1; and individuals who were older than 45 were in group 2. Hypothesis 5a was supported; younger individuals experienced more institutional isolation than older individuals (2.48, 2.29, respectively). This is consistent with the prediction made.

Insert Tables 13a and 13b Here

Hypothesis 5b was also accepted; younger individuals did experience significantly higher levels of social isolation than older individuals. The mean value of younger individuals’ experience of social isolation was 1.99; older individuals, 1.78.

Younger individuals also had higher intentions to turnover than older individuals (2.2, 1.88, respectively); but older individuals had higher levels of affective commitment than younger individuals (3.73, 3.37, respectively).

There were significant differences in the levels of institutional and social isolation experienced by individuals because of their age. Younger individuals would feel more socially and institutionally isolated than older individuals. Need for affiliation was not tested in Hypothesis 6a and 6b as a covariate of age, because the Cronbach's alpha for this subscale was below acceptable levels.

In addition, Hypotheses 7 and 8 which would have examined whether the percentage of minority women in the institution and department was inversely related to the experience of isolation among minority women were not tested because the percentage of minority faculty members, regardless of gender, was less than .01 at both the departmental and institutional levels.
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In summary, there were statistically significant differences in the levels of institutional and social isolation by race, age, and gender. However, these relationships did not always develop as predicted. There were differences, by race, in the overall model in the levels of institutional isolation felt; however, the pairwise comparisons were not significant. Substantially as predicted, African-Americans experienced greater social isolation than most other racial/ethnic groups. Females did not feel more institutionally isolated, although they did feel more socially isolated than males. There were mixed results for the differences in experiences by subgroup. African-American females experienced higher levels of social isolation than any other group except African-American males or Asian-American females; however, there was no statistically significant difference between African-American women and Asian-American women in their levels of institutional isolation.

Results Pertaining to Mentoring

The impact of a mentoring relationship on institutional and social isolation was examined in several ways: (1) the extent to which the presence or absence of a mentor made a difference (H9a); (2) the extent to which career mentoring and psychosocial mentoring affected individuals’ levels of institutional and social isolation (H9b-c, 10c, 11a-b, 12a-b); (3) the extent to which access to mentoring is related to race/ethnicity and gender, examining proportions of individuals, by race and by gender, in mentoring relationships (H10a); (4) the extent to which the type of mentoring program mattered (that is, informal vs. formal mentoring program affected institutional and social isolation (H13);
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and (5) the extent to which cross-gender and cross-racial mentoring impacted the nature and levels of mentoring, as well as institutional and social isolation.

Hypothesis 9a was not supported. Mentored individuals did not feel less institutionally isolated than unmentored individuals. However, mentored individuals felt more socially isolated (1.96 and 1.84, respectively), and that difference is statistically significant. These results were directly opposite the hypothesized relationships.

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Insert Tables 14a and 14b Here
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There was no significant differences between mentored and unmentored individuals on intentions to turnover or affective organizational commitment.

The strength of the relationships between career mentoring and institutional isolation and between psychosocial mentoring and social isolation were tested utilizing correlational analysis. Career mentoring was hypothesized to be inversely related to institutional isolation; and psychosocial mentoring was predicted to be inversely related to social isolation.

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Insert Table 15 Here
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The data indicated that as the level of overall and career mentoring rose, the level of institutional isolation decreased (r = -.22 and -.23, respectively). However, social isolation was not significantly related to career or psychosocial mentoring. Nor was there a significant relationship between overall mentoring and social isolation. There was an
Examination of Mentoring Effects on Isolation

inverse, significant relationship between mentoring and intention to turnover (overall, 
\( r = -.21 \); career, -.21; psychosocial, -.14). There was a significant, positive relationship 
between mentoring and affective commitment (overall, \( r = .25 \); career, .25; psychosocial, 
.20).

A chi-square statistic was utilized to test whether racial minorities are less likely to be 
involved in mentoring relationships than Caucasian-Americans (H10a). This statistic 
indicates whether the expected frequency of individuals in mentoring relationships was 
significantly different than the proportion of minorities and/or Caucasian-Americans in 
mentoring relationships.

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Insert Tables 16a and 16b Here
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These data suggested that the obtained frequencies of individuals, by race, in formal, 
combined and informal mentoring programs is different than what could be expected, by 
chance. The expected chi-square statistic of 9.49 is less than the observed statistic, 
27.054. Thus, there is a statistically significant difference in the numbers of African-
Americans, Caucasian-Americans and Asian-Americans in mentoring programs, by 
program type, than could be due to chance. Race and type of mentoring programs are 
not independent variables.

In this study, 14% of mentored Caucasian-Americans were in a formal mentoring 
program; less than 1% were in a combined program; 85% were in an informal program. 
Similarly, 22% of mentored African-Americans were in formal programs, 17% in
combined programs, and 61% in informal programs. Mentored Asian-Americans were found in formal programs 8% of the time; in informal, 92% of the time.

Twenty-nine percent of the Caucasian-Americans should have been in each type of program (the probability of an individual being in any cell is the probability of being in the row multiplied by the probability of being in the column. In this case, Caucasian-Americans consisted 86% of the mentored sample. Each individual, by race, had a one-third probability in being in each type of mentoring program. Thus, the probability of being of a particular race, in a particular mentoring program is $1/3 \times 86.28\%$ or approximately 29%). Caucasian-Americans were over-represented in informal programs, but they were under-represented in formal and combined programs. African-Americans were expected to be in each type of program 1.91%, but were in formal 1.77%, combined 1.33% and informal, 4.87%. Thus, they were under-represented in formal and combined and over-represented in informal programs. Asian-Americans were expected to consist of 2.65% of each type of program, but were under-represented in formal and combined (.44, .00, respectively) and over-represented in informal, 5.31%.

When the proportions, by gender, are examined for proportions in the different types of mentoring programs, the chi-square statistic indicates that the expected value of 7.04 is greater than the obtained chi-square value, 4.092. This means that the obtained frequencies of males and females in mentoring programs, by program, do not differ from the expected frequencies more than would be observed by chance. In other words, males and females were in the various types of mentoring programs (formal, informal and
combined) in about the proportions expected, and gender and type of program were independent of each other.

In addition, the extent to which individuals, by race and gender, were in mentoring relationships was also tested using chi-square analysis. These data indicate that of the total sample, 27% are mentored Caucasians, 2.45% are mentored African-Americans and 1.77% are mentored Asian-Americans. In general, 31% (or 226) of all faculty responding were protégés in mentoring relationships. Of these, 86% are Caucasians, 8% are African-American, and 6% are Asian-Americans. Approximately 450 out of 645 Caucasians were unmentored, or 70% of Caucasians are not in mentoring relationships. In fact, unmentored Caucasians make up 88% of the unmentored sample, African-Americans 4.52%, and Asian-Americans, 7.07%. Caucasian-Americans had an 86% chance of being in the sample; of those in the sample, each Caucasian had a 50% chance of being mentored. The chance of being both Caucasian and mentored was $.5*.88 or 44%. The critical value for this hypothesis was 5.99; the observed value was 3.822. Thus, there was no statistically significant difference, by race, in the proportions of individuals in mentoring relationships. Thus, Hypothesis 10a has been rejected.

Although there was not a specific hypothesis of this nature for gender, the same statistical test was conducted to determine if males were represented in mentoring relationships in greater proportions than females. There is a statistically significant difference in the proportions, by gender, of individuals in mentoring relationships. Males make up 64% of the total sample, but only 46% of those who are mentored; whereas
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females consist of 36% of the total sample, but 54% of those who are mentored. Men were mentored less than expected. A larger proportion of women are mentored than men. Thus, this relationship was opposite what was predicted for racial minorities; that proportions differ by gender but to the benefit of women.

Insert Tables 17a-b and 18a-b Here

The effect of cross-gender, cross-racial mentoring relationships on institutional and social isolation were examined, utilizing GLM ANOVA. Individuals in same-race, same-gender relationships were hypothesized to receive more psychosocial mentoring than if in different-race, different gender relationships.

The data indicate that there is no significant difference in the level of career mentoring provided for individuals by their mentors, regardless of the race-gender make-up of the mentor-protégé relationship. In addition, there was no significant difference in the level of psychosocial mentoring.

Insert Table 19a-b and 20a Here

The relationship of cross-cultural mentoring to institutional isolation and social isolation were also tested via GLM ANOVA. There was a statistically significant difference in the amount of institutional isolation experienced, when one examines the cross-gender, cross-racial nature of the mentor-protégé relationship. Individuals in cross-racial relationships have higher levels of institutional isolation than individuals in same-
Examination of Mentoring Effects on Isolation

race, same-gender, and/or cross-gender relationships. Post-hoc analyses indicate that there is not a statistically significant difference in the levels of institutional isolation experienced by individuals in cross-gender relationships, when race is not examined.

Insert Tables 20b and 20c Here

There was no difference in the level of social isolation when cross-gender mentoring relationships were examined. However, when cross-race relationships were examined, the results indicate that there is a statistically significant difference in the level of social isolation felt by the protegee than when in same-race relationships.

Insert Tables 21a-21c Here

In summary, these data indicate that there was a significant effect of mentor-protegee demographics on the sense of institutional isolation and social isolation. While mentoring, alone, did not have a significant effect on institutional and social isolation, the nature of the demographics of the mentor-protégé dyad did result in differences in the levels of institutional and social isolation experienced.

Hypotheses 11a and 11b were tested utilizing a t-test in which the level of career and psychosocial mentoring was examined for differences by gender, using Noe's mentoring roles questionnaire, modified for mentoring received, rather than perceived.
Hypothesis 11a was not supported. In fact, females received, on average, no difference in psychosocial support than males. In addition, there was no statistically significant difference, by gender, in the level of career mentoring provided.

Insert Tables 22a-22d Here

Furthermore, the age classification differences in the levels of career and psychosocial mentoring were tested. There were no statistically significant difference in the level of career or psychosocial mentoring provided individuals by age class. Younger and older individuals received substantially the same levels of career and psychosocial mentoring. Neither hypothesis was supported in this analysis.

Insert Tables 22e and 22f Here

The effects of the types of mentoring programs (formal, informal or combined) on the levels of isolation (both institutional and social) experienced were tested.

Insert Tables 23a and 23b Here

There was no statistically significant difference in the levels of institutional or social isolation felt by individuals in formal, informal or combined mentoring programs. Few of the hypothesized mentoring relationships have been supported by this data.
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However, individuals in formal programs experienced greater intentions to turnover than individuals in informal programs (2.66, 2.03, respectively). There was no significant relationship between type of mentoring program and affective commitment.

The final two hypotheses focused on the relationship between individuals' perceived isolation and their affective organizational commitment and intention to turnover. These relationships were tested utilizing correlational analysis. The correlation matrix can be found in Table 9.

As predicted, there is a significant inverse relationship between the level of institutional isolation and the level of affective commitment individuals feel toward the organization (r=-.64, p<.05). The relationship between affective commitment and social isolation is not as strong, but is in the hypothesized direction and is significant (r=-.34, p<.05). The more individuals feel institutionally and socially isolated, the less affectively committed they are to the organization.

In addition, there is a significant, positive correlation between institutional isolation and intent to turnover (r=.53, p<.05). There is a weaker, but still significant correlation between social isolation and intent to turnover (r=.35, p<.05). Again, the question of the effect of the mentoring relationship was tested, this time in relation to individuals’ intentions to turnover. As with a number of other hypothesized mentoring effects, this analysis showed that there were insignificant differences between mentored and unmentored individuals on their intentions to turnover.
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In summary, the hypothesized relationships between individuals’ characteristics and isolation (both institutional and social) were supported in many cases. However, the relationships between mentoring and any number of individual and organizational correlates were not significant. A summary of the hypotheses and their results is as follows:

- **Hypothesis 1:** Support was found for two dimensions of isolation: Institutional isolation and social isolation.

- **Hypothesis 2a:** Support was found for differences, by race, in the level of institutional isolation. Asian-Americans, not African-Americans experienced higher levels of institutional isolation than Caucasians.

- **Hypothesis 2b:** Partial support was found for race differences in social isolation.

- **Hypothesis 3a:** Females did not experience higher levels of institutional isolation than males.

- **Hypothesis 3b:** Support was found for gender differences in social isolation. Females did feel more socially isolated than males.

- **Hypotheses 4a and 4b:** Partial support was found for both hypotheses -- there were some subgroup differences in institutional isolation and social isolation, but not always in the groups hypothesized.

- **Hypothesis 5a:** There were age differences in institutional isolation. Consisted with this hypothesis, older individuals experienced lower levels of institutional isolation than older individuals.
Examination of Mentoring Effects on Isolation

- Hypothesis 5b: Support was found for younger individuals’ experience of greater social isolation than older individuals.

- No tests of Hypotheses H6- H8 were conducted.

- Hypothesis 9a1: No support was found for the prediction that mentored individuals felt less institutionally isolated than unmentored individuals.

- Hypothesis 9a2: Mentored individuals experienced higher levels of social isolation than unmentored individuals. This effect was opposite the predicted result.

- Hypothesis 9b: Support was found for inverse correlation between career mentoring and institutional isolation.

- Hypothesis 9c: No support was found for the hypothesized inverse relationship between psychosocial mentoring and social isolation.

- Hypothesis 10a: No support was found for the hypothesis that racial minorities are less likely to be in mentoring relationship than Caucasian-Americans.

- Hypothesis 10b: Partial support was found for the test of the level of psychosocial mentoring when in same-race/gender relationship.

- Hypothesis 10c: No support was found indicating that mentored minorities received less career or psychosocial mentoring than Caucasians.

- Hypothesis 11a-b: No support was found for differences in career or psychosocial mentoring, by gender.

- Hypothesis 12a-b: No support was found for differences in levels of career of psychosocial mentoring, by age.
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• Hypothesis 13a-b: No support was found for differences in levels of institutional or social isolation when type of mentoring program was examined.

• Hypothesis 14a-b: Support was found for inverse relationships between isolation (institutional and social) and affective commitment.

• Hypothesis 15a: Support was found for positive relationships between isolation (institutional and social) and intent to turnover.

• Hypothesis 15b: No support was found for hypothesis that mentored individuals have lower intentions to turnover than unmentored individuals.

Chapter 5 discusses plausible explanations for and possible implications of these results. Limitations of this research and plans for future research are also discussed.
Examination of Mentoring Effects on Isolation

CHAPTER 5

Discussion

The Existence of Institutional and Social Isolation

There was support for the conceptualization and the measurement of institutional isolation and social isolation as two independent constructs. The exploratory and confirmatory analyses, as well as Cronbach’s alpha, the internal consistency measure, were supportive and clear. In fact, Cronbach’s alpha of both PIES subscales (alpha = .89 and .79, respectively) is superior to the subscales conceptualized by Seeman and others. The internal consistency of Seeman’s social isolation subscale was unacceptably low (alpha = .42), therefore, support for convergent validity of the PIES social isolation subscale was not possible. While the internal consistency of the powerlessness and normlessness subscales were higher (.55 and .68, respectively) than for the Seeman social isolation measure, they were still inferior to the PIES measure of institutional and social isolation.

While these factors of institutional and social isolation correlated at .53 and did not have as high a level of independence as desired (that is, <.40), one would expect attitudes about the same workplace experiences and environment to be moderately related; and thus, correlated. It might be difficult for individuals to respond to questions about one type of isolation experience without contaminating the answer with references to or attitudes colored by the second type of isolation.

One weakness of the previous findings about isolation is that they are based on a sample that is not representative of American workers. The experiences of university
Examination of Mentoring Effects on Isolation

faculty may under-estimate the feelings of those who experience institutional and social isolation. Thus, future research is needed to determine the generalizability of this model. This study was conducted with white collar professionals, who Sokoloff (1992) defined as some of the most desirable occupations in U.S. society. In fact, access to these types of jobs has “defined” the middle-class, since they have offered rewards, autonomy, power and influence not generally offered to nonprofessionals Sokoloff also argued that in such elite occupations, members expect greater rewards for their services, higher returns on their capital investments. However, race and gender differences do exist (1) in the receipt of doctoral degrees, (2) the extent to which individuals with doctorates are tenured, and (3) the attainment of faculty rank. While racial and ethnic minorities have made some gains in obtaining employment in academe, their entry is far less than their representation in the general population. The attainment of this elite status, however, is likely to be greater than corresponding attainments in other workplaces.

There are a number of reasons why individuals might experience isolation. From a racialized and gendered organizational perspective, one might expect individuals to feel isolated, since human capital investments pay off differently for individuals based on certain immutable characteristics the individual possesses. For example, Higginbotham (1987) and Cabezas et al. (1989) found that African-Americans and Asian-Americans (males to a greater degree than females) do not reap the same benefit from their capital investments as do Caucasian men. An extension of this idea is that in-group members benefit more greatly than out-group members from the same capital investment
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(Dansereau et al., 1975). Thus, any of these individuals may feel that “doing the right thing” and “acquiring the right stuff” is not enough for them to be successful. When their investments do not pay off as they expected, it is not unreasonable for these individuals, in general, to feel isolated. This conceptualization of institutional isolation and social isolation is consistent with alienation literature (Durkheim, 1947; Dean, 1961) which suggests that individuals who are not the owners of the factors of production feel attitudinally and structurally separate and apart within the organization.

Utilizing the perspective of racialized and gendered institutions, one might expect individuals to experience power-privilege relations conflict which may lead to institutional isolation and social isolation. There may well be imbedded structures, policies, practices and attitudes. However, this study was not designed to test structural elements or to ascertain, specifically, what actions, policies or procedures triggered the perceptions of isolation. Certainly, once the existence of isolation has been identified, it would be in the organization’s best interests to determine what “unseen” forces are perpetuating attitudes and practices they may not want continued.

Race and Gender Differences and Isolation

Race/Ethnicity. Cox (1990) argued that there are two factors which limit the amount of research on racial/ethnic groups (which he termed “racioethnic”). First, there are few scholars who are actively working on these issues, since “white Americans generally do not consider racioethnicity a topic of universal importance. Many still treat it as ‘a minority issue’--that is, a matter relevant only to minority group members (190: 6).
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Secondly, there are methodological issues (i.e., small sample sizes, need for non-traditional research designs, social desirability effects in data collection, absence of field cooperation, and the influence of the researcher’s racioethnic identity on the research process) which make this work particularly difficult to pursue. Consistent with the racialized and gendered perspective, Alderfer and Tucker (1988) pointed out that in predominantly white settings, members of racioethnic groups have to deal with race differences which whites choose to overlook or feel are insignificant on their lives. Thus, they argued that just asking a white person to complete a questionnaire in which race issues are covered creates discomfort and a negative response to the questionnaire.

The analysis of race differences is a good example of one of the problems Cox (1990) identified. Because there were insufficient numbers of Hispanic-Americans in the sample (less than 10), no statistical analyses were conducted on this portion of the sample. Most statistical procedures require a sample size of 30 or more for interpretable results. This group of individuals was deleted from the analysis. Because one cannot expect that their experiences are the same, the Hispanic-American group could not be merged with any other racial/ethnic group (Andersen & Collins, 1995). Therefore, for this study, discussion of racial/ethnic groups includes African-Americans, Asian-Americans, and Caucasian-Americans. In the future, however, research utilizing such a small sample will be modified, per Cox (1990) so that valuable insight can be gained about this ethnic group's work experiences.
Examination of Mentoring Effects on Isolation

Focusing on the remaining groups, there was a statistically significant difference, by race, in the level of felt institutional isolation. The average institutional isolation felt by Asian-Americans, 2.61; by African-Americans was 2.56; and by Caucasian-Americans was 2.35. Asian-Americans felt statistically significantly more institutionally isolated than Caucasian-Americans. There was no difference in the level of isolation felt by Asian-Americans and African-Americans, nor between African-Americans and Caucasian-Americans. These results are consistent with previous research which suggests that minority groups perceive their workplace experiences more unfavorably than their Caucasian counterparts (Ilgen & Youtz, 1986; Wells & Jennings, 1983).

Studies such as those by Ilgen and Youtz (1986) in which they applied in-group, out-group membership to workplace experiences of Blacks indicated that the individual’s minority group status makes it more likely for them to be out-group members, thus experiencing the workplace differently than Caucasians. A similar argument has been offered by Messick and Mackie (1989), referred to as aversive racism, in which the majority may hold negative views of the minority but overt racist behaviors are shunned. The majority group member may psychologically withdraw from the minority group member, which may create an environment in which the minority member is securely placed in an out-group position, leaving him or her institutionally and socially isolated.

The results for Asian-Americans is consistent with the study by Lan et al. (1988) in which they found that Asian-Americans were also isolated in the workplace. Interestingly, however, historical conceptualization of Asian-Americans as the "model minority"
Examination of Mentoring Effects on Isolation

(Sowell, 1975) would indicate that they are more successful than African-Americans and Hispanic-Americans, because they are perceived, in general, more favorably than either of the other two minority groups. In fact, this previous research indicates that Asian-Americans have "all the right stuff" and may even be superior, on some dimensions, to Caucasians in the workforce. More recent literature (Cho, 1995) indicates that Asian-Americans may be chafing under this title, recognizing that it has served more as a "punishment" to more disadvantaged minority groups, rather than as a "reward" to Asian-Americans. This label may also create more pressure for Asian-Americans to be successful in organizations, necessitating their requirement for greater levels of institutional information. When they do not receive this information (and have bought into the model minority label), they may feel increasingly institutionally isolated.

Arguments have also been presented which explain the isolation of African-Americans. Nkomo and Cox (1990) found that African-Americans experienced social rejection in the workplace, regardless of how successful their career outcomes were. This feeling of rejection would lead to them feeling socially isolated. Braddock and McPartland (1987) further suggested that African-Americans have been denied equal access to the most valuable informal sources of job information, thus they feel institutionally isolated. Social and political networks in organizations provide faculty with information and resources for getting their jobs done, knowing when research and consulting opportunities are available, and providing support when choices are made about tenure. However, African-Americans relied on the formal system, rather than
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informal networks (Dickens & Dickens, 1987; Tsui, 1984). Because they are usually tied to social networks composed of other African-Americans who, on average, are not as well placed as Caucasian-Americans in the workplace, they have limited information, which results in their feeling institutionally isolated. While this effect was not significant in this study, in part due to the nature of the occupation and the level of public scrutiny of the university operations, the fact that this level of institutional isolation is higher for African-Americans than their Caucasian-American counterparts is worth further examination.

**Gender.** A key finding of this research is that females, on average, feel more institutionally and socially isolated than do males. This is consistent with a myriad of previous findings in the mentoring literature where mentors are touted as the vehicle to overcome barriers to upward mobility for women (Kram, 1985; Ragins, 1989; Ragins & Sundstrum, 1989; Noe, 1988b; the Glass Ceiling Report (U.S. DOL, 1991)), and socialization literatures (Gomez-Mejia, 1983; Jones, 1983; 1986; Louis, 1980; Van Maanen & Schein, 1979) in which women and men differed on both particular attitudes and objective outcomes, thus necessitating organizational socialization interventions such as mentoring.

In addition, logical inferences for the expectation that there would be gender differences in the levels of social and institutional isolation derive from the career and adult development literatures (Bardwick, 1979; Gilligan, 1982). This research clearly indicate that women's experiences in the workplace differ from those of men. Because of barriers to their success in the organization and lack of promotional opportunity, they have
experienced difficulty in adjusting to the organization. This difficulty manifests itself in the individual feeling isolated (both institutionally and socially).

The difference, by gender, in the perceptions of institutional and social isolation is consistent with the work by Kanter (1977) whose study of tokenism examined the effect of gender proportions is widely cited in the literature. Part of the criticism of this work has been that it has a nonsymmetrical effect -- that the experience of men where their proportion of representation is small, is different from the experience of women in similar situations -- supports the notion that power relations rather than numbers impact individuals' perceptions (Yoder, 1991). Williams (1992) coined the phrase “glass escalator”, which for men works to accelerate their career mobility, directly opposite the “glass ceiling” that women experience. If this glass escalator exists, women who view the success of their male counterparts may experience institutional and social isolation because those who facilitate the success of the males are not correspondingly assisted with their success.

Even when males and females have made the same preparations for their careers, through educational and career training experiences, their subjective and objective outcomes are not the same. Human capital investments for women do not yield the same return as those same investments for men (Brett, Stroh & Reilly, 1990). Because the groups are not usually physically separated within the workplace and should have some knowledge of each other’s experiences, the differential experience and outcomes of males may create an environment in which women feel institutionally and socially isolated.
Double Minorities. Historically, there have been two approaches used to understand the impact of race and sex on African-American females (Smith and Stewart 1987). One model is the cumulative effect model, which views race and sex as additive variables (the "two-fer theory"); which argued that the combination of the two variables is positive; and the "double-whammy" theory, which argued that the resultant effect is negative). The second model is that race and gender are parallel processes and operate in the same way. In this study, the effects of race and gender were not the same; thus, there is little support that they operate in the same fashion (Fulbright, 1986; Higginbotham, 1987; Nkomo & Cox, 1990). Therefore, one cannot only examine race or gender or make assumptions about double minorities based on the experiences of women alone. Secondly, Higginbotham (1987) has demonstrated that, counter to the two-fer theory-- in which the notion has been perpetuated that African-American women enjoy a preferred status vis-à-vis African-American men and Caucasian women-- the capital investments of African-Americans and Caucasians--and between Asian-Americans and Caucasians (Cabezas et al., 1989) --do not yield the same return. Moreover, the investments of Caucasian women versus African-American women result in different returns, with Caucasian women reaping higher benefits. Thus, there is no support for the two-fer theory.

The data only partially supported the hypothesis that African-American women experience higher levels of institutional and social isolation than any other racial minority or gender group. Asian-American females experienced greater institutional isolation than any other group; African-American females experienced greater social isolation than
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Caucasian males and females and Asian-American males. Because African-American women and Asian-American women and men have generally not been included in the same data set, the finding that Asian-American females experience similar levels of institutional isolation as African-American women should not be surprising. Their isolation exceeds that of any other racial/gender combination. Existing literature supports Asian-Americans' feelings of isolation within the workplace, despite their "successful" career outcomes.

Age. Younger individuals felt more institutionally and socially isolated than their older colleagues. One reason for this difference may be that "younger" consisted of individuals 45 years and younger. Another issue may be that the rank of the older individuals in most cases exceeded that of the younger individuals. As such, the older individuals may have the tenure, key committee assignments, and the access to those in power that may not be available to their younger colleagues. Because the kinds of information and sources of information were not captured as part of this study, it is difficult to know what else might have driven this result.

Mentoring in Racialized and Gendered Contexts

Mentoring has been hypothesized to facilitate the success of individuals in the organization, particularly women and minorities, in assisting them in overcoming institutional barriers to their success. Mentors can provide support, advice, and career guidance; confer legitimacy and alter stereotypic perceptions; provide "reflected power"; build self-confidence; train in the "ins and outs" of corporate politics; provide inside
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information usually obtained through the “good old boys’ network”; provide feedback important in overcoming the “male managerial model” and provide a role modeling function (Ragins, 1989). Kram (1985) described mentoring as “a set of roles and role activities including coaching, support and sponsorship.” In the sponsorship role, the mentors actively intervene, contriving to provide maximum exposure and visibility for their protégés, in an attempt to facilitate their promotability. Kram identified two dimensions of the development relationship, which have been supported by other researchers (Burke, 1984; Schockett & Haring-Hidore, 1985; Noe, 1988; Olain, Carroll, Giannantonio & Feren, 1988). These dimensions are career mentoring (which includes sponsorship, exposure, visibility, coaching, protection and challenging assignments); and psychosocial mentoring (which include serving as role models, providing friendship, counseling, acceptance and confirmation).

Previous research on mentoring indicated that mentoring had a positive effect on a number of organizational outcomes, such as lower actual turnover (Levinson, 1978; Kram, 1985) and increased provision of organizational information with respect to norms, procedures and policies; and subjective outcomes such as organizational commitment (Collins, 1983 & Zey, 1984) and increased career satisfaction (1990). Other mentoring outcomes are enhanced work effectiveness (Kram, 1985); job success (Roche, 1979; Stumpf & London, 1981; Hunt & Michael, 1983; Fagensen, 1989); higher salaries (Roche, 1979); promotion decisions (Stumpf & London, 1981; Hunt & Michael, 1983); and career mobility (Scandura, 1992). Consistent with Ragins and Whitely (1989), this study
suggests that there was no difference in male and female protégés’ perceptions of career development mentoring received. This finding is also consistent with Dreher and Ash (1990) who found no differences in career mentoring for 320 male and female managers and professions. Dougherty and Dreher (1992) found that the gender of the protégé was unrelated to the amount of career mentoring received. There was no statistically significant difference, by race, gender or age, in the level of career or psychosocial mentoring received.

Consistent with the previous findings, there was no statistically significant difference in individuals' attitudes based on the type of mentoring program they were in. Findings by Chao et al. (1992) suggested that individuals in informal programs received greater benefits than those in formal programs. In this study, however, these differences were not reflected. Part of the reason for this finding could be because of the way the data was captured on mentoring relationships. The questionnaire may have been ambiguous in the definition of "informal" versus "formal" program; proteges could report on any mentor they had had and that may have introduced some error when they listed more than one mentor but only talked about one mentor relationship. Thirdly, because the mentor did not have to be current or at their current institution, it is possible that the way "mentoring programs" were defined were inconsistent across institutions and experience.

More women, proportionately, are in mentoring relationships than men; but there is no statistically significant difference, by race, in the participation in mentoring relationships. This research finding suggests that, consistent with research on mentoring.
glass ceiling issues, etc., cited many times in this study that attempts are being made (either by the institution or the individual) to facilitate individuals' overcoming of barriers to organizational success.

Previous research also indicated that there is a possible interaction effect, between race and gender, in the mentoring-protégé dyad, which affected mentoring outcomes. Previous research by Ragins and McFarlin (1990) found that in cross-gender relationships, when controlling for differences in prior experience with mentors, organizational level and other demographic variables, perceived mentor roles for role modeling and social roles had significant gender interactions. In fact, cross-gender protégés were less likely than same-gender protégés to report engaging in after-work, social activities with their mentors.

Individuals in same-race, same-gender relationships were hypothesized to receive more psychosocial mentoring than if in different-race, different gender relationships. These data indicate that there is no significant difference in the level of career mentoring provided for individuals by their mentors, regardless of the race-gender make-up of the mentor-protégé relationship. In addition, there was no significant difference in the level of psychosocial mentoring.

When one examines the cross-gender, cross-racial nature of the mentor-protegee relationship, there was a statistically significant difference in the amount of institutional isolation experienced. Individuals in cross-racial relationships have higher levels of institutional isolation than individuals in same-race, same-gender, and/or cross-gender
Examination of Mentoring Effects on Isolation

relationships. Post-hoc analyses indicate that there is not a statistically significant difference in the levels of institutional isolation experienced by individuals in cross-gender relationships, when race is not examined. There was no difference in the level of social isolation when cross-gender mentoring relationships were examined. However, when cross-race relationships were examined, the results indicate that there is a statistically significant difference in the level of social isolation felt by the protegee than when in same-race relationships.

In summary, these data indicate that there was a significant effect of mentor-protegee demographics on the dependent variables of institutional isolation and social isolation such that isolation in cross-race relationships were significantly higher than the same-race relationships. While mentoring, alone, did not have a significant effect on institutional and social isolation, the nature of the demographics of the mentor-protegee dyad did result in differences in the levels of institutional and social isolation experienced.

There are several possible explanations for the effects (and lack of effect) of mentoring on the levels of isolation (institutional and social). Being mentored may raise individuals' expectations of access to sources which were previously withheld. If these expectations were not met, there may not have been a corresponding decrease in the level of institutional isolation. Again, in a cross-sectional study, one cannot know the effect, if any, of mentoring on institutional isolation or the level of isolation the individual felt upon organizational entry.
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An interesting result is that fact that mentored individuals felt more socially isolated than unmentored individuals. The number of individuals who are mentored are the same as with institutional isolation. What may be happening is that the individual perceives that the mentoring relationship is (or is not) making a difference in access to social networks. If this is the case, then the persons may become (again, speculative) more socially isolated. The difference between the individual's world "with" the mentor and that without the mentor may be so discordant as to exacerbate previous feelings of isolation.

When hypotheses tested whether racial or gender minorities in mentoring relationships experienced more or less institutional and social isolation than their Caucasian (or Caucasian male) counterparts, one of two things could be happening. As above, the expectations may increase which exacerbate previously existing perceptions; the individuals who were more isolated sought out or were placed in mentoring relationships; or selection bias in the sample in that those who were more likely to answer were those with strong perceptions of isolation and/or strong feelings (either positive or negative) about the benefits or weaknesses of their mentoring relationships.

Conclusions

In general, this study did support conceptualizations of institutional isolation and social isolation in terms of workplace experiences in academe. While some of the race and gender difference predictions did not bear out, there were enough of them to suggest
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that race and gender differences do, in fact, exist in attitudes and workplace experiences. When examining these relationships through the design utilized in this study, the underlying processes and structures which may lead to these differences can only be speculated about, but they do seem consistent with the racialized and gendered organization perspective. Even when minorities and women are provided with the same access to mentors; when they receive substantially the same levels of career and psychosocial mentoring; and when they feel as affectively committed to the organization, with as little intention to turnover with Caucasian males -- they are still experiencing the workplace differently. This notion supports the argument that changing the individual through mentoring does not change the organization or the environment in which the individual works. If practices and policies are imbedded in the organization such that race and gender matter, the experiences of individuals as a group will not change unless the organization's structure and underlying processes change.

Organizations seem to be "doing the right things" and attempting to facilitate the success of individuals. However, they may be doing these things at the wrong level. An extension of this study should include a research design that will examine both quantitatively and qualitatively, the experiences of groups and at the structural level, those processes, policies, and attitudes that may be imbedded.

These results confirming the existence of institutional and social isolation suggest that this component of individuals' workplace experiences should be examined at organizational entry and at intervals during organizational membership--before and after
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Interventions have been conducted to socialize individuals. In this way, the organization may better be able to determine the type of intervention, if any, needed to obtain organizationally desired (and individually required) goals. For example, similar to work conducted by Weiss (1973) on loneliness, individuals who are institutionally isolated may require interventions which facilitate access to information—perhaps through membership on and leadership of committees where decisions are made—whereas individuals who are socially isolated may need introductions into or planned activities which promote the development of various social support networks.

Limitations

There were several major limitations to this study. First, a longitudinal study would have allowed some explanation of causality, rather than simple relationships between social and institutional isolation and mentoring, affective commitment or intent to turnover. Second, the design did not allow for a test of the racialized and gendered structure of the organization. Third, capturing of data from mentor as well as protégé would possibly have enlightened the relationship and processes in the mentoring relationship, giving some support for perceived attitudes. Fourth, the nature of the sample itself may have been problematic. University faculty may not be representative of the general public in terms of human capital investment, autonomy, and perceptions of organization (rather than profession) to which one may be affectively committed. Finally, nonresponse is a "problematic, important source of error in surveys" (Fowler, 1993:52). The overall effect of nonresponse is difficult to ascertain. Two significant sources of
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Nonresponse bias are (1) predisposition of individuals with strong feelings (either positively or negatively) about the subject to respond; thus, results may be skewed in either direction; or (2) better-educated people usually send back responses more than less-educated people. In this survey, all individuals surveyed had earned doctorates, thus the second source of bias is not applicable. Attempts to bolster the response rate included use of a personal letter with survey; development of stratified sample such that individuals were surveyed in proportion to their representation at the institution; and use of follow-up techniques, such as postcards and telephone calls. Furthermore, the questionnaire was professionally developed and printed; the return address was printed on the questionnaire, and the postage was pre-paid.

Within these limitations are several other concerns that should be addressed in future research. The smaller sample sizes, by race, must be included in the total study. Research designs which would allow analysis, quantitatively and qualitatively, of those relationships are critical. The institutions in this geographical location had very low numbers of African-American, Asian-American and Hispanic-American faculty. Thus, their small N sizes might obfuscate very real differences in organizational experiences. One might imagine that an “objective” editor would discount this study because of small N sizes.

Rationale which explains in more detail what the similarities and differences between and within the different minority groups should also be included in future research. The length of the survey may also have been problematic because of the items needed for construct and discriminate validity. Future studies could include only the 24 PIES items.
Future Research

This study has demonstrated that continued research of institutional and social isolation could prove fruitful in explaining differential work experiences of women, minorities and Caucasian males. A critical element in continuing this stream of research is the ability to capture qualitative data which will provide more depth in describing the variety of experiences of the targeted groups, as well as categorizing the types of experiences and practices which contribute to one's feelings of isolation. Furthermore, a longitudinal design which examines the effect of mentoring on the qualitative experiences of individuals would also enhance the understanding of organizational experiences.
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Examination of Mentoring Effects on Isolation


Examination of Mentoring Effects on Isolation


Examination of Mentoring Effects on Isolation


Mead (1934).


Examination of Mentoring Effects on Isolation


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APPENDIX A

Alienation View of Worker Exclusion

Hegel (c.f. Marcuse, 1941:34) first coined the term "alienation" to describe his view of what happens to socialized man [sic], suggesting that man (similar to Adam in the Garden of Eden) becomes detached from the world of nature, including his own nature, and that knowledge is the alienating factor that breaks man's community with all other natural things. Marx expanded on this theme by adding labor as an alienating factor. Hegel and Marx (cf. Marcuse, 1941:273) suggest that workers are being used for other people's purposes, and that they are separated from having control of their own destiny and, as a result, are helpless. Marx postulated that workers were merely cogs in a wheel - - they completed the work for others who owned the tools of production, but they had no decision-making capability or influence on the work. His conception of alienation incorporates both the absence of intrinsic job satisfaction and the rejection or failure of individuals to internalize the dominant values of the society (or its ruling class). Marx's view was essentially an economic argument, in which he believed that sooner or later, workers would rally in organizations of their own to drastically modify the existing economic system.

Research on alienation has included a myriad of topics: alienation from power, from religion, from society, etc. It has been conceptualized as a broad umbrella under which most of one's societal experiences might fall. Because of the broad conceptualization,
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Alienation has been globally applied and much of its ability to be empirically tested has been questioned.

**Alienation Dimensions.** In an attempt to develop a framework under which alienation could be tested empirically, Seeman (1967) proposed that one or more of the following feelings about oneself and the world exists: (1) a sense of powerlessness -- which was suggested by Hegel and by Marx, and supported by considerable research, in which one feels that the events and outcomes important to oneself are controlled and determined by external forces and not by one's efforts; (2) a sense of meaninglessness -- the feeling that the course of events is incomprehensible and that the future cannot be predicted; (3) a sense of normlessness -- the feeling that socially approved means are not necessary to attain socially approved goals and that one is therefore not bound by standards of values and morality; (4) social isolation -- feelings of loneliness, rejection, exclusion from valued groups or relationships; and (5) estrangement -- (a) value isolation or estrangement, which is the rejection of commonly held values; and (b) self-estrangement, which is the feeling that one is engaged in activities that are not rewarding in themselves; and one is, therefore, acting in ways that are somehow not true to self and one's own needs (Katz & Kahn, 1978:382). These five dimensions of alienation have been empirically tested and supported (Neal & Rettig, 1963).

The bulk of alienation studies has used the social psychological framework employed by Seeman, using subjective measures to assess attitudes, values, sentiments or expectancies. However, the majority of the research has been conducted on
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powerlessness, from which a number of scales have been developed (Dean, 1961; Rotter, 1966; Shybut & Lotsof, 1969; Converse, 1972; Balch, 1974).

**Alienation Correlates.** Other research indicates that there are a number of factors associated with feelings of alienation. In fact, Seeman (1972) summarized the research on these factors: People feel less alienated (powerless) when they are members of organizations that have some potential for influence in matters of importance—labor unions, professional societies, political organizations, and other voluntary associations (Neal & Seeman, 1964; Seeman, 1966; Almond & Verba, 1963). People are more likely to feel alienated (normless) if they are of low socioeconomic status—low income and/or low education (Meier & Bell, 1959; Bullough, 1967). Finally, there is evidence that alienation from work (self-estrangement) is more common among people doing monotonous, machine-paced, closely supervised jobs (Weiss & Riesman, 1961; Blauner, 1964; Kornhauser, 1965; Crozier, 1965; Wilensky, 1964).

**Alienation's Societal View.** Alienation, thus, looks at individuals in a broader societal sense, in which the relationship is considered less voluntary and more permanent than an employment relationship, since one cannot easily remove oneself as a societal member. The focus of institutional and social isolation looks at a more voluntary relationship of the individual with the organization, where members and the organization have selected each other and co-exist in a relatively at-will relationship.

The constraints upon behavior are organization-specific and may or may not be consistent with broader societal expectations or constraints.
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Anomie View of Worker Exclusion

The dimension of normlessness is derived from Durkheim's (1951) conceptualization of anomie as a condition of de-regulation or relative normlessness in a social group. Furthermore, he argues that anomie is a characteristic of societies undergoing economic and moral upheaval, that it tends to result from rapid economic change. Whether it derives from upheaval or as a social psychological attribute of personality, he submits that, as a result, social norms exercise only a low degree of social control over behavior (cf. McClosky & Schaar, 1965. This word, anomie, is Greek in origin and was transliterated into Latin as anomia and into English as anomy. Durkheim retransliterated the word into anomie; however, English writers use anomy.) Olsen (1965) suggests that Durkheim used the term anomie to reflect a breakdown in both normative integration (where there are inadequate moral norms) and functional integration (where there are inadequate procedural rules).

Individual Anomia versus Collective Anomie. Merton (1964, 1968) differentiates between individual anomia and collective anomie, arguing that the former is the property of the individual, while the latter pertains strictly to the social system. He further argues that society has placed a great emphasis on the acquisition of wealth, without adhering to legal and rightful ways of gaining that wealth.

Therefore, when the individual has no restraints on his/her greed with respect to use of legitimate means to acquire material goods, anomie is the result (McClosky & Schaar, 1965:15-16).
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**Anomie as a Psychological State.** Srole (1956:711) conceptualized anomie as a psychological state which refers to "the individual's generalized, pervasive sense of 'self-to-others belongingness' at one extreme compared with 'self-to-others distance' and 'self-to-others alienation' at the other pole of the continuum. Srole broadened this formulation to include the possibility that anomie might be a function not only of social conditions but also of personality factors. He postulated five attitudinal-ideational components of the anomie state of mind and devised a five-item scale to measure them.

Alienation and anomie, although correlated, are two distinct constructs (McClosky & Schaar, 1965). These literatures, with their roots in both psychology and sociology, lend support to a conceptualization that individuals may feel separate and apart from the organization, that they may feel excluded as organizational members.
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**APPENDIX B**

**Pilot Study**

The pilot study examined one of the goals of socialization, the employee’s sense of adjustment to, and acceptance by, the organization. The general question of interest was whether women and minorities differentially experienced and responded to the organization's socialization practices. More specifically, in the initial study, I examined the sense of isolation among employees to determine (1) the extent to which individuals experienced two types of isolation, specifically, social and institutional isolation, within organizations; (2) whether isolation was differentially experienced on the basis of gender and race; and (3) whether this experience was related to individual and organizational characteristics.

The study conducted was a self-reported survey of university faculty, consisting of 152 respondents who included both Caucasian and African-American males and females. The purpose of this research was to explore the extent to which institutional and social isolation are reported and can be distinguished from one another and to investigate whether or not these types of isolation are experienced differentially on the basis of respondents' race or gender.

**Sample and Procedures.** The criteria for inclusion in the instrument development pilot sample consisted of assistant and associate professors with doctorates. The proposed instrument was mailed to a total sample of 464 persons, including 50 Caucasian male, 50 Caucasian female, 190 African-American male, and 174 African-American female
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faculty members at four different four-year land-grant academic institutions with doctoral programs. The Caucasian faculty were randomly selected from among the population of faculty at a single institution. However, because a sample of African-American and female faculty was more difficult to obtain, a number of institutions were surveyed. African-American faculty at one of the targeted institutions were randomly selected by the Minority Affairs office; all African-American faculty at the other three institutions were surveyed. Any sample bias in the lack of randomization is offset somewhat by having sufficient numbers of African-American faculty in order to conduct the study. Because of the sensitive nature of some of the questions, total anonymity was assured. Therefore, the questionnaires were not coded with an identification number so that follow-up with the respondents could be conducted. As questionnaires were returned, demographic information was obtained to help in estimating the nonresponse bias in the survey. As demonstrated by Babbie (1990), respondents who delay answering are more similar to nonrespondents than are those who respond immediately. In fact, African-American faculty responded at a lesser rate and took longer to respond than did their Caucasian counterparts. Follow-up was conducted through sending a letter or card to everyone to whom the survey had initially been sent (or through a follow-up phone call if the respondent lived locally), requesting that the subject return the completed survey. Approximately 45 surveys were returned after the follow-up, which was intended to boost the response rate as high as possible with a minimum target of 30%. A total of 152 subjects out of a possible 464 responded, for a response rate of 32.8%.
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**Measures.** The instrument developed for this study is called Perceptions of inclusion/Exclusion Survey (PIES). The response format for the PIES measure was a 5-point Likert-type scale ranging from "strongly agree" (5) to "strongly disagree" (1).

To develop the 34 items, a critical incident-type technique (Flanagan, 1954) was used to generate the descriptions of isolation gathered in structured interviews of 22 African-American and Caucasian women in academe and industry. Questions asked included: (1) "Describe your organizational experiences." (2) "What types of organizational encounters make you feel that you are as much a part of the organization as others in the organization?" (3) "What kinds of experiences make you feel separate from the organization and others in the organization?" (4) "Do you feel that your experiences were different than those of your Caucasian or male counterparts? If so, in what way(s)? If not, how are (were) they similar?" Sample responses included the following: (1) "I feel it's difficult being bilingual, having to translate my thoughts and ideas into language that is not necessarily the way I talk or think." (2) "I have to submerge a large part of my identity into socially acceptable behavior, not because my normal behavior is inappropriate, but because it does not translate well across cultures and seems threatening to others who do not understand it. I have to become immersed in the majority culture to the extent that I have difficulty communicating with my own race and/or gender." (3) "I feel that I am caught between two worlds, too Black (or female) to be part of the majority culture (or 'one of the boys'), but perceived as too White (or too masculine, i.e., tough, cold, etc.) to comfortably fit within my own race's (or gender's) world." (4) "I know that others in my
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organization don't understand how difficult it is to be 'different'. (5) "I have to expend enormous amounts of energy to maintain the facade of 'fitting in' and 'having it all together' and as a result, I feel fragmented and caught between worlds. I'm jumping between worlds and sometimes I get confused about which world I'm in."

Subjects' responses were converted into 88 items which reflected attitudes and beliefs regarding the various dimensions or aspects of social and institutional isolation that emerged from these interviews. The items were then reviewed by the interview participants for accuracy and for their additional input. Items which were ambiguous, misleading, redundant or did not accurately reflect the participants' experience were removed. The list of items was thus reduced from 88 to 66. These 66 items were subsequently reviewed for clarity, appropriateness and content validity by 15 Caucasian and African-American male and female judges, each of whom was a doctoral candidate or a faculty member from the areas of organizational psychology, sociology, human resource management, or organizational behavior.

The dimensionality of the instrument was further tested by asking a third group of 18 individuals (employed undergraduate and doctoral students and faculty/staff in the College of Business) to examine the 66 items. They were instructed to review each item, compare it to the construct definitions given and indicate whether the item related to institutional isolation, to social isolation, to both or to neither.
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Finally, redundancy was reduced to two items per dimension. The revised scale for this study consisted of thirty-four of the original 66 items; each isolation subscale consisted of 17 items.

**Analyses and Results.** A common factor analysis was conducted on a sample of 145 subjects with complete data, from the 152 original participants. The purpose was to examine whether the data supported use of two separate factors, institutional isolation and social isolation. The heuristic for the factor loadings was based on Hair (1993): 30% is significant, 40% is more important, 70% is very significant. Only loadings equaling or exceeding .40 were utilized in this analysis. An oblique rotation was utilized, because one would not expect that factors relating to individuals' isolation experiences would be orthogonal.

The factor analysis was run on the data twice. The first time, all 34 items of the two subscales were included. The results explained approximately 65% of the variance. Several of the items were re-examined after analysis and evaluation of the subscales, their factor loadings, and substantive meaning. At this time, four of the 34 items were deleted either because no substantive interpretation could be made of the score, because of a complex sentence structure that assessed two concepts at once, or because the item's logic was faulty. The factor analysis was re-run after these deletions. Because of the difficulty in obtaining a comparison sample (and in particular the number of minority participants), factor analyses were run on the same sample more than once. Because this study was exploratory and because an equivalent second group of minority faculty was not readily
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available, this technique was deemed appropriate in this instance. Future exploration, however, will be conducted on a separate sample.

The results explained 70.85 percent of the variance, and the factor loadings indicated that at least 29 of the remaining 30 items related to two separate factors.

When the patterns of item factor loadings were examined, the two factors were identified as institutional isolation (factor 1) and social isolation (factor 2). The items whose substantive meaning was inconsistent with that of the factor were discarded, regardless of their factor loading, leaving 29 total items.

An internal consistency approach (Cronbach’s alpha) was used to determine the reliability of the social and institutional isolation subscales. A Cronbach’s alpha of \( \geq 0.70 \) indicates that the subjects responded consistently to the individual items relate to a particular dimension within each subscale. Cronbach’s alpha for the SPIES scales were .87 for institutional isolation and .84 for social isolation.

The results demonstrated that, as hypothesized, individuals in organizations experience two identifiable types of isolation: social isolation and institutional isolation. Support was found in the factor analysis results, shown in Table 1, which indicated that a two-factor solution was reasonable and supportive of the theory. In fact, when more than two factors were generated, the new loadings represented "leeching" from the first two factors. Additionally, the correlations between the two factors (r=.529) suggested that each factor assessed a unique construct.
Race and gender differences. The second question dealt with the extent to which types of isolation were differentially experienced on the basis of race or gender. A general ANOVA could not be run because race and gender were not independent factors. To look at group differences, a series of t-tests was conducted. These results are reflected in Appendix B, Tables 2 and 3.

Discussion

These initial results reflect what the theory suggests is occurring in the workplace. In general, females may indeed feel that they are singled out because of their gender as representatives of that gender. They perhaps do not feel that they belong at the institution or that they are a part of the institution. They also may feel that their relationships at the institution are superficial and that they engage in no real substantive encounters. Furthermore, female faculty may feel as if they are on display and, as such, are not individuals but representatives of their gender. They are maintaining a role that the institution requires of them, which has psychosocial costs to them. Furthermore, African-American females, in particular, experience greater institutional isolation than Caucasian or African-American males.

African-Americans seem also to be experiencing this type of social isolation. For African-American males and females, who experience social isolation more strongly than Caucasian males and females, there is a sense of not having a support network. Only the African-American female feels significantly more socially isolated than the African-American male. Both African-American males and females are not only on display, but
they also have no one to whom to turn for emotional and social support. There are few, if any, similar others within the institution with whom they identify and they are constantly on guard that their multiple role identities are kept separate. Their mere presence in the organization does not allow them entree into or acceptance by the greater majority culture within the organization. Any gains they make are on the terms of the majority culture, with their conformity and increased loss of identity as the price to be paid.

The results presented here also demonstrated that females, in general, feel more institutionally isolated than men. This finding, too, is consistent with a myriad of other studies on the upward career mobility of females in organizations and the call for improved socialization practices (through mentoring, for example) where females have encountered barriers to their success in organizations. Females believe that there is information critical to their success that is being withheld from them; that there is less access to centers of power, prestige and information for them than for their male counterparts; and they believe that their opinions, ideas, and knowledge have to be "validated" by a member of the majority group (in most cases, Caucasian males) before any credence is given to them. This devalues their contributions within the organization, making it more difficult for them to demonstrate their "worthiness" for promotional and other opportunities. They may feel that they are "on the outside" of institutional prestige, power and influence. Again, this feeling of institutional isolation may necessitate the manifestation of behaviors that are then deemed organizationally inappropriate (thus appellations of "not being a company person") or that are political suicide. There is a lack
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of belief that there is sufficient interest in the females' success in the organization; and, perhaps, that there are sabotaging behaviors by their male counterparts which make their success even more difficult, if not impossible.
Appendix B: Table 1: Sense of Isolation Factor Analysis

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<td>.08308</td>
<td>.56657</td>
</tr>
<tr>
<td>Item 32</td>
<td>.17067</td>
<td>.55450</td>
</tr>
<tr>
<td>Item 38</td>
<td>.22841</td>
<td>.47542</td>
</tr>
<tr>
<td>Item 40</td>
<td>.43118</td>
<td>.45125</td>
</tr>
<tr>
<td>Item 43</td>
<td>.10343</td>
<td>.44277</td>
</tr>
<tr>
<td>Item 35</td>
<td>.41599</td>
<td>.42433</td>
</tr>
<tr>
<td>Item 39</td>
<td>.31096</td>
<td>.25373</td>
</tr>
</tbody>
</table>
### Appendix B: Table 2: Race and Gender Differences in Institutional Isolation

<table>
<thead>
<tr>
<th>Comparison (1st mean vs. 2d mean)</th>
<th>First mean</th>
<th>Second mean</th>
<th>df</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male vs. Female</td>
<td>1.88(.55)</td>
<td>2.09(.51)</td>
<td>145</td>
<td>-2.35*</td>
</tr>
<tr>
<td>Caucasian vs. African-American</td>
<td>1.92(.55)</td>
<td>2.02(.53)</td>
<td>145</td>
<td>-1.04</td>
</tr>
<tr>
<td>Caucasian Male vs. African-American Male</td>
<td>1.87(.54)</td>
<td>1.89(.55)</td>
<td>76</td>
<td>-.158</td>
</tr>
<tr>
<td>Caucasian Male vs. Caucasian Female</td>
<td>1.87(.54)</td>
<td>1.98(.56)</td>
<td>55</td>
<td>-.76</td>
</tr>
<tr>
<td>Caucasian Male vs. African-American Female</td>
<td>1.87(.54)</td>
<td>2.15(.48)</td>
<td>73</td>
<td>2.33*</td>
</tr>
<tr>
<td>African-American Male vs. Caucasian Female</td>
<td>1.89(.55)</td>
<td>1.98(.56)</td>
<td>69</td>
<td>.67</td>
</tr>
<tr>
<td>African-American Male vs. African-American Female</td>
<td>1.89(.55)</td>
<td>2.15(.48)</td>
<td>89</td>
<td>-2.35*</td>
</tr>
<tr>
<td>African-American Female vs. Caucasian Female</td>
<td>2.15(.48)</td>
<td>1.98(.56)</td>
<td>68</td>
<td>-1.29</td>
</tr>
</tbody>
</table>

Note. Standard deviations in parentheses. *p < .05
Appendix B: Table 3: Race and Gender Differences in Social Isolation

<table>
<thead>
<tr>
<th>Comparison (1st mean vs. 2nd mean)</th>
<th>First mean</th>
<th>Second mean</th>
<th>df</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male vs. Female</td>
<td>2.34(.52)</td>
<td>2.52(.62)</td>
<td>145</td>
<td>-1.90</td>
</tr>
<tr>
<td>Caucasian vs. African-American</td>
<td>2.18(.48)</td>
<td>2.58(.57)</td>
<td>145</td>
<td>-4.40*</td>
</tr>
<tr>
<td>Caucasian Male vs. African-American Male</td>
<td>2.14(.49)</td>
<td>2.47(.50)</td>
<td>76</td>
<td>-2.91*</td>
</tr>
<tr>
<td>Caucasian Male vs. Caucasian Female</td>
<td>2.14(.49)</td>
<td>2.22(.47)</td>
<td>55</td>
<td>-.61</td>
</tr>
<tr>
<td>Caucasian Male vs. African-American Female</td>
<td>2.14(.49)</td>
<td>2.69(.63)</td>
<td>73</td>
<td>4.06*</td>
</tr>
<tr>
<td>African-American Male vs. Caucasian Female</td>
<td>2.47(.50)</td>
<td>2.22(.47)</td>
<td>69</td>
<td>-2.10*</td>
</tr>
<tr>
<td>African-American Male vs. African-American Female</td>
<td>2.47(.50)</td>
<td>2.69(.63)</td>
<td>89</td>
<td>-1.81</td>
</tr>
<tr>
<td>African-American Female vs. Caucasian Female</td>
<td>2.69(.63)</td>
<td>2.22(.47)</td>
<td>68</td>
<td>-3.25*</td>
</tr>
</tbody>
</table>

Note. Standard deviations in parentheses. *p < .05
### Table 1a: Frequency Breakdown of Sample (Race by Gender and Rank)

<table>
<thead>
<tr>
<th>Race</th>
<th>Males</th>
<th></th>
<th></th>
<th>Females</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Asst Prof</td>
<td>Assoc Prof</td>
<td>Prof</td>
<td>Lect/ Adj</td>
<td>Asst Prof</td>
<td>Assoc Prof</td>
<td>Prof</td>
<td>Lect/ Adj</td>
</tr>
<tr>
<td>African-American</td>
<td>16</td>
<td>14</td>
<td>3</td>
<td>0</td>
<td>10</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Asian-American</td>
<td>17</td>
<td>6</td>
<td>13</td>
<td>1</td>
<td>4</td>
<td>6</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Caucasian-American</td>
<td>78</td>
<td>131</td>
<td>205</td>
<td>6</td>
<td>104</td>
<td>70</td>
<td>41</td>
<td>17</td>
</tr>
<tr>
<td>Total</td>
<td>111</td>
<td>141</td>
<td>231</td>
<td>7</td>
<td>118</td>
<td>79</td>
<td>55</td>
<td>22</td>
</tr>
<tr>
<td>Percent of Sample</td>
<td>14.9</td>
<td>19.0</td>
<td>31.1</td>
<td>.9</td>
<td>15.9</td>
<td>10.63</td>
<td>7.4</td>
<td>4.44</td>
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</tbody>
</table>

### Table 1b: Frequency Breakdown of Sample (Race by Gender and Institution)

<table>
<thead>
<tr>
<th>N = 743</th>
<th>Male</th>
<th>Female</th>
<th>Site 1</th>
<th>Site 2</th>
<th>Site 3</th>
<th>Site 4</th>
<th>Site 5</th>
<th>Site 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>African-American</td>
<td>23</td>
<td>19</td>
<td>15</td>
<td>5</td>
<td>7</td>
<td>8</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Asian-American</td>
<td>37</td>
<td>12</td>
<td>22</td>
<td>4</td>
<td>3</td>
<td>13</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Caucasian-American</td>
<td>420</td>
<td>232</td>
<td>219</td>
<td>123</td>
<td>61</td>
<td>97</td>
<td>122</td>
<td>30</td>
</tr>
<tr>
<td>Percent of Sample</td>
<td>64.6</td>
<td>35.4</td>
<td>34.5</td>
<td>17.8</td>
<td>9.5</td>
<td>15.9</td>
<td>17.9</td>
<td>4.4</td>
</tr>
</tbody>
</table>
Table 2a: Description of Variables, Constructs and Instruments

<table>
<thead>
<tr>
<th>Variable</th>
<th>Construct</th>
<th>Instrument</th>
</tr>
</thead>
<tbody>
<tr>
<td>aff_comm</td>
<td>affective commitment</td>
<td>Meyer and Allen's Affective Commitment Subscale</td>
</tr>
<tr>
<td>inscore</td>
<td>average institutional isolation</td>
<td>SPIES</td>
</tr>
<tr>
<td>socscore</td>
<td>average social isolation</td>
<td>SPIES</td>
</tr>
<tr>
<td>nonorm</td>
<td>normlessness</td>
<td>Seeman's alienation subscale</td>
</tr>
<tr>
<td>nopower</td>
<td>powerlessness</td>
<td>Seeman's alienation subscale</td>
</tr>
<tr>
<td>nosoc</td>
<td>social isolation</td>
<td>Seeman's alienation subscale</td>
</tr>
<tr>
<td>alien</td>
<td>total measure of alienation</td>
<td>Seeman's aggregate alienation scale</td>
</tr>
<tr>
<td>naff</td>
<td>need for affiliation</td>
<td>Steers &amp; Brauenstein's Manifest Needs subscale</td>
</tr>
<tr>
<td>career_m</td>
<td>career mentoring</td>
<td>Noe's mentoring roles</td>
</tr>
<tr>
<td>social_m</td>
<td>psychosocial mentoring</td>
<td>Noe's mentoring roles</td>
</tr>
<tr>
<td>mentor</td>
<td>existence of mentoring</td>
<td>one-item measure</td>
</tr>
<tr>
<td>ment_inf</td>
<td>existence of informal mentoring</td>
<td>one-item measure</td>
</tr>
<tr>
<td>ment_for</td>
<td>existence of formal mentoring</td>
<td>one-item measure</td>
</tr>
<tr>
<td>rank</td>
<td>title/rank of individual</td>
<td>subject selects from category</td>
</tr>
<tr>
<td>dept</td>
<td>department/discipline of subj</td>
<td>subject selects from category</td>
</tr>
<tr>
<td>gender</td>
<td>gender of subject</td>
<td>subject selects from two responses</td>
</tr>
<tr>
<td>race</td>
<td>race or ethnicity of subject</td>
<td>subject selects from five responses</td>
</tr>
<tr>
<td>age</td>
<td>age of subject</td>
<td>subject inserts year born</td>
</tr>
<tr>
<td>duty</td>
<td>whether researcher, teacher or administrator</td>
<td>subject selects from three responses</td>
</tr>
<tr>
<td>tenure</td>
<td>number of years with institution</td>
<td>subject inserts 1- or 2-digit response</td>
</tr>
<tr>
<td>ntatover</td>
<td>intent to turnover</td>
<td>Taken from Michigan Organizational Assessment, 3-item measure</td>
</tr>
</tbody>
</table>
**Table 3: Items from the Perceptions of Inclusion/Exclusion Measure of Institutional and Social Isolation (PIES)**

<table>
<thead>
<tr>
<th>Institution Isolation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Inst1:</strong> I feel I receive less respect at my institution than others who have the same experience and education as I.</td>
</tr>
<tr>
<td><strong>Inst2:</strong> I have input in the decisions that are made at this institution that affect others. (Reverse score)</td>
</tr>
<tr>
<td><strong>Inst3:</strong> I have opportunities to network with those who make decisions affecting me and/or others in this institution (Reverse score)</td>
</tr>
<tr>
<td><strong>Inst4:</strong> When others at this institution make the same remarks in meetings as I do, their input seems more highly valued than mine.</td>
</tr>
<tr>
<td><strong>Inst5:</strong> I am encouraged to attend meetings that would facilitate my success at this institution. (Reverse score)</td>
</tr>
<tr>
<td><strong>Inst6:</strong> I have input in the decisions that are made at this institution which affect me. (Reverse score)</td>
</tr>
<tr>
<td><strong>Inst7:</strong> If I want to be successful at this institution, I know the faculty and/or administrators who can help me. (Reverse score)</td>
</tr>
<tr>
<td><strong>Inst8:</strong> I am usually invited to the social functions which occur off campus which involve my peers. (Reverse score)</td>
</tr>
<tr>
<td><strong>Inst9:</strong> I have less access to my superiors than others in my peer group.</td>
</tr>
<tr>
<td><strong>Inst10:</strong> When I have a problem or concern at this institution, I generally know where to obtain help. (Reverse score)</td>
</tr>
<tr>
<td><strong>Inst11:</strong> I believe others in my peer group think very little of my input in meetings.</td>
</tr>
<tr>
<td><strong>Inst12:</strong> If I need information which would facilitate my success, I have to go outside the formal channels of this institution to find it.</td>
</tr>
<tr>
<td><strong>Inst13:</strong> I have access to the resources I need to be successful at this institution. (Reverse score)</td>
</tr>
<tr>
<td><strong>Inst14:</strong> I am aware of most social functions (i.e., parties, receptions, luncheons, cookouts) which are of interest to me on campus. (Reverse score)</td>
</tr>
<tr>
<td><strong>Inst15:</strong> Some people at this institution are withholding information from me that would facilitate my success.</td>
</tr>
<tr>
<td><strong>Inst16:</strong> I am frequently asked to participate in social activities by my peers. (<strong>This item was included on the questionnaire in error and was not analyzed.</strong>)</td>
</tr>
</tbody>
</table>
Table 3, Page 2: Items from the Perceptions of Inclusion/Exclusion Measure of Institutional and Social Isolation (PIES)

<table>
<thead>
<tr>
<th>Social Isolation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sociso1: I tone down my comments in group discussions, masking my true feelings and experience, so that my peers can relate to me.</td>
</tr>
<tr>
<td>Sociso2: I have to appear to relate to my peer group's experiences, although they do not seem to relate to mine.</td>
</tr>
<tr>
<td>Sociso3: People in my peer group know things vital to achieving success here that I do not know but that I should know.</td>
</tr>
<tr>
<td>Sociso4: I experience a sense of loneliness when I am in a group of my peers or coworkers.</td>
</tr>
<tr>
<td>Sociso5: I prefer to interact mainly with others who are from the same race as me.</td>
</tr>
<tr>
<td>Sociso6: Most of my relationships at this institution are superficial.</td>
</tr>
<tr>
<td>Sociso7: I think that I am specifically invited to attend university functions because of my gender.</td>
</tr>
<tr>
<td>Sociso8: I would prefer to interact mainly with others who are from the same gender as me.</td>
</tr>
<tr>
<td>Sociso9: I think that I am specifically invited to attend university functions because of my race.</td>
</tr>
<tr>
<td>Sociso10: My conversations with my peers are confined to academic pursuits.</td>
</tr>
<tr>
<td>Sociso11: I do not &quot;belong&quot; at this institution.</td>
</tr>
<tr>
<td>Sociso12: In a racially mixed group, I feel I am singled out when the discussion centers on my own racial group.</td>
</tr>
<tr>
<td>Sociso13: I am frequently asked to answer questions or express an opinion which require me to represent the opinion of my gender.</td>
</tr>
</tbody>
</table>
Examination of Mentoring Effects on Isolation

**Table 4a: Alienation Subscale Correlations**

<table>
<thead>
<tr>
<th></th>
<th>Normlessness</th>
<th>Social Isolation</th>
<th>Alienation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Powerlessness</td>
<td>.67</td>
<td>.54</td>
<td>.90</td>
</tr>
<tr>
<td>Normlessness</td>
<td>.41</td>
<td>.80</td>
<td></td>
</tr>
<tr>
<td>Social isolation</td>
<td></td>
<td>.75</td>
<td></td>
</tr>
</tbody>
</table>

N=1108, 38.8% response rate

p<.01

* Cronbach’s alpha was not reported for any of these subscales.
Table 4b: Items from Alienation Subscales: Powerlessness, Normlessness, and Social Isolation Subscales

---

**Powerlessness Scale**

**Nopower1:** There are so many decisions that have to be made today that sometimes could just "blow up".

**Nopower2:** We're so regimented today that there's not much room for choice even in personal matters.

**Nopower3:** It is frightening to be responsible for the development of a little child.

**Nopower4:** I worry about the future facing today's children.

**Nopower5:** Sometimes I have the feeling that other people are using me.

**Nopower6:** There is little or nothing I can do towards preventing a major "shooting" war.

**Nopower7:** There is little chance for promotion on the job unless a person gets a break.

**Nopower8:** We are just so many cogs in the machinery of life.

**Nopower9:** The future looks very dismal.

---

**Normlessness Subscale**

**Nonorm1:** The end justifies the means.

**Nonorm2:** Everything is relative, and there just aren't any definite rules to live by.

**Nonorm3:** The only thing one can be sure of today is that one can be sure of nothing.

**Nonorm4:** People's ideas change so much that I wonder if we'll ever have anything to depend on.

**Nonorm5:** I often wonder what the meaning of life really is.

**Nonorm6:** With so many religions abroad, one doesn't really know which one to believe.

---

**Social Isolation Subscale**

**Nosoc1:** Sometimes I feel all alone in the world.

**Nosoc2:** One can always find friends if one shows oneself as friendly.

**Nosoc3:** I don't get invited out by peers as often as I'd really like.

**Nosoc4:** Most people at this institution seldom feel lonely.

**Nosoc5:** Real friends are as easy as ever to find at this institution. (Reverse score)

**Nosoc6:** The world in which we live is basically a friendly place. (Reverse score)

**Nosoc7:** There are few dependable ties between people any more.

**Nosoc8:** People are just naturally friendly and helpful. (Reverse score)

**Nosoc9:** I don't get to visit friends as often as I'd really like.
Table 5: Noe's Mentoring Roles Instrument (MRI)

<table>
<thead>
<tr>
<th>Role</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coach1</td>
<td>My mentor has shared the history of his/her career with me. (Coaching)</td>
</tr>
<tr>
<td>Coach2</td>
<td>Mentor has encouraged me to prepare for advancement. (Coaching)</td>
</tr>
<tr>
<td>Accept1</td>
<td>Mentor has encouraged me to try new ways of behaving in my job. (Acceptance &amp; Confirmation)</td>
</tr>
<tr>
<td>Accept2</td>
<td>My mentor has conveyed feelings of respect for me as an individual. (Acceptance &amp; Confirmation)</td>
</tr>
<tr>
<td>Role1</td>
<td>I try to imitate the work behavior of my mentor. (Role Model)</td>
</tr>
<tr>
<td>Role2</td>
<td>I agree with my mentor's attitudes and values regarding education. (Role Model)</td>
</tr>
<tr>
<td>Role3</td>
<td>I respect and admire my mentor. (Role Model)</td>
</tr>
<tr>
<td>Role4</td>
<td>I will try to be like my mentor when I reach a similar position in my career. (Role Model)</td>
</tr>
<tr>
<td>Counsel1</td>
<td>My mentor demonstrates good listening skills in our conversations. (Counseling)</td>
</tr>
<tr>
<td>Counsel2</td>
<td>My mentor discusses my questions or concerns regarding feelings of competence, commitment to advancement, relationships with peers and supervisors or work/family conflicts. (Counseling)</td>
</tr>
<tr>
<td>Counsel3</td>
<td>My mentor has shared personal experiences as an alternative perspective to my problems. (Counseling)</td>
</tr>
<tr>
<td>Counsel4</td>
<td>My mentor encourages me to talk openly about anxiety and fears that detract from my work. (Counseling)</td>
</tr>
<tr>
<td>Counsel5</td>
<td>My mentor has conveyed empathy for the concerns and feelings I have discussed with him/her. (Counseling)</td>
</tr>
<tr>
<td>Counsel6</td>
<td>My mentor keeps feelings and doubts I shared with him/her in strictest confidence. (Counseling)</td>
</tr>
<tr>
<td>Protect1</td>
<td>My mentor reduces unnecessary risks that could threaten the possibility of becoming an associate or full professor (or administrator). (Protection)</td>
</tr>
<tr>
<td>Protect2</td>
<td>My mentor helps me finish assignments/tasks or meet deadlines that otherwise would have been difficult to complete. (Protection)</td>
</tr>
<tr>
<td>Expose1</td>
<td>Mentor helps me meet new colleagues. (Exposure &amp; Visibility)</td>
</tr>
<tr>
<td>Expose2</td>
<td>Mentor gives me (or makes me aware of) assignments that increased written and personal contact with university administrators. (Exposure)</td>
</tr>
<tr>
<td>Expose3</td>
<td>My mentor assigns (or requests the assignment of) responsibilities to me that have increased my contact with people in academe who may judge my potential for potential advancement. (Exposure)</td>
</tr>
<tr>
<td>Sponsor1</td>
<td>My mentor gives (or requests others to give) me assignments or tasks in my work that prepare me for full professor or tenure. (Sponsorship)</td>
</tr>
<tr>
<td>Challenge</td>
<td>My mentor gives (or requests others to give) me assignments that present opportunities to learn new skills. (Challenging Assignments)</td>
</tr>
</tbody>
</table>
Table 6: Items from Need for Affiliation Subscale, Intent to Turnover Measure, and Affective Commitment Subscale

Need for Affiliation Subscale

Naff1: When I have a choice, I try to work in a group instead of by myself.
Naff2: I express my disagreements with others openly.
Naff3: I pay a great deal of attention to the feelings of others at work.
Naff4: I prefer to do my own work and research and let others do theirs. (Reverse scored)
Naff5: I find myself talking to those around me about non-business related matters.

Intent to Turnover Measure

Wilquit1: I will probably look for a new position in the next year.
Wilquit2: I often think about quitting.
Wilquit3: I will actively look for a new job in the next year.

Affective Commitment Scale

Aff_comm1: Working at this institution has a lot of personal meaning for me.
Aff_comm2: I feel a strong sense of belonging to this institution.
Aff_comm3: I am proud to tell others that I work for this institution.
Aff_comm4: I feel emotionally attached to this institution.
Aff_comm5: I would be happy to work at this institution until I retire.
Aff_comm6: I enjoy discussing this institution with people outside of it.
Aff_comm7: This institution does not deserve any loyalty. (Reverse score)
Aff_comm8: I do not feel like part of a family at this institution. (Reverse score)
<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Factor 1 Social</th>
<th>Factor 2 Institutional</th>
</tr>
</thead>
<tbody>
<tr>
<td>11:</td>
<td>Receive less respect than others with same education and experience</td>
<td>.65071</td>
<td></td>
</tr>
<tr>
<td>12:</td>
<td>Have input in decisions</td>
<td>.59524</td>
<td></td>
</tr>
<tr>
<td>13:</td>
<td>Have opportunities to network with decisionmakers</td>
<td>.66407</td>
<td></td>
</tr>
<tr>
<td>14:</td>
<td>Same remarks of others valued more than my remarks</td>
<td>.58735</td>
<td></td>
</tr>
<tr>
<td>15:</td>
<td>Encouraged to attend meetings facilitating my success</td>
<td>.52396</td>
<td></td>
</tr>
<tr>
<td>16:</td>
<td>Have input in decisions</td>
<td>.69851</td>
<td></td>
</tr>
<tr>
<td>17:</td>
<td>Know from whom to get help to succeed at this institution</td>
<td></td>
<td>.50034</td>
</tr>
<tr>
<td>18:</td>
<td>Invited to off-campus social functions involving peers</td>
<td>.45260</td>
<td></td>
</tr>
<tr>
<td>19:</td>
<td>Have less access to superiors than peers</td>
<td>.50651</td>
<td></td>
</tr>
<tr>
<td>10:</td>
<td>Know where to obtain help if have problem or concern</td>
<td>.59577</td>
<td></td>
</tr>
<tr>
<td>11:</td>
<td>Believe peers devalue my input</td>
<td></td>
<td>.63339</td>
</tr>
<tr>
<td>12:</td>
<td>Have to go outside formal institutional channels to get help</td>
<td></td>
<td>.60590</td>
</tr>
<tr>
<td>13:</td>
<td>Have access to resources to be successful</td>
<td>.54850</td>
<td></td>
</tr>
<tr>
<td>14:</td>
<td>Aware of on-campus social functions</td>
<td>.44939</td>
<td></td>
</tr>
<tr>
<td>15:</td>
<td>People are withholding information I need</td>
<td>.51858</td>
<td></td>
</tr>
<tr>
<td>S1:</td>
<td>Tone down comments so peers can relate to me</td>
<td>.41262</td>
<td></td>
</tr>
<tr>
<td>S2:</td>
<td>Have to relate to peers' experiences, but they don't have to relate to mine</td>
<td>.45722</td>
<td></td>
</tr>
<tr>
<td>S3:</td>
<td>Peer group has vital information I don’t have</td>
<td>.48091</td>
<td></td>
</tr>
<tr>
<td>S4:</td>
<td>Experience loneliness when with peers</td>
<td>.48091</td>
<td></td>
</tr>
<tr>
<td>S7:</td>
<td>Specifically invited to university functions because of gender</td>
<td></td>
<td>.59862</td>
</tr>
<tr>
<td>S9:</td>
<td>Specifically invited to university functions because of race</td>
<td>.48661</td>
<td></td>
</tr>
<tr>
<td>S10:</td>
<td>Conversations with peers about academics only</td>
<td>.72999</td>
<td></td>
</tr>
<tr>
<td>S12:</td>
<td>Single out in racially-mixed group when race is topic</td>
<td>.63815</td>
<td></td>
</tr>
<tr>
<td>S13:</td>
<td>Must answer questions for whole gender</td>
<td>.53988</td>
<td></td>
</tr>
</tbody>
</table>
Table 8: Confirmatory Analysis Goodness of Fit Indices by Model

<table>
<thead>
<tr>
<th>Model Differs by Subscale Included N=362</th>
<th>Goodness of Fit Index (GFI)</th>
<th>Adjusted Goodness of Fit Index (AGFI)</th>
<th>Root Mean Square Residual (RMR)</th>
<th>Bentler's Comparative Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1</td>
<td>.7197</td>
<td>.6985</td>
<td>.0788</td>
<td>.7473</td>
</tr>
<tr>
<td>Model 2</td>
<td>.7427</td>
<td>.7212</td>
<td>.0702</td>
<td>.7824</td>
</tr>
<tr>
<td>Model 3</td>
<td>.7332</td>
<td>.7119</td>
<td>.0704</td>
<td>.7705</td>
</tr>
<tr>
<td>Model 4</td>
<td>.8040</td>
<td>.7658</td>
<td>.0765</td>
<td>.7755</td>
</tr>
<tr>
<td>Variables</td>
<td>Mean S.D.</td>
<td>N</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>-----------</td>
<td>-----------</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>1. Inscore</td>
<td>2.38</td>
<td>.62</td>
<td>720</td>
<td>720</td>
</tr>
<tr>
<td>2. Socscore</td>
<td>1.88</td>
<td>.53</td>
<td>720</td>
<td>720</td>
</tr>
<tr>
<td>3. Nonnorm</td>
<td>2.27</td>
<td>.62</td>
<td>719</td>
<td>719</td>
</tr>
<tr>
<td>4. Nopower</td>
<td>2.58</td>
<td>.55</td>
<td>720</td>
<td>720</td>
</tr>
<tr>
<td>5. Nosoc</td>
<td>2.83</td>
<td>.39</td>
<td>721</td>
<td>721</td>
</tr>
<tr>
<td>6. Alien</td>
<td>7.68</td>
<td>1.27</td>
<td>708</td>
<td>708</td>
</tr>
<tr>
<td>7. Nntover</td>
<td>2.08</td>
<td>1.0</td>
<td>738</td>
<td>738</td>
</tr>
<tr>
<td>8. Naff</td>
<td>3.28</td>
<td>.52</td>
<td>729</td>
<td>729</td>
</tr>
<tr>
<td>9. Aff comm</td>
<td>3.57</td>
<td>.73</td>
<td>716</td>
<td>716</td>
</tr>
</tbody>
</table>

Table 9: Means, Standard Deviations and Intercorrelations of Scales, with Cronbach's Alpha on the Diagonal.
Table 10: Mean Values of Institutional Isolation Subscale of Perceptions of Inclusion/Exclusion Measure, By Race

Overall Model: 2,740 df
Overall F = 6.06
P Value = .0024

<table>
<thead>
<tr>
<th>Scales</th>
<th>Total Sample</th>
<th>Caucasian-Americans</th>
<th>African-Americans</th>
<th>Asian-Americans</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institutional Isolation</td>
<td>2.38</td>
<td>2.35</td>
<td>2.56</td>
<td>2.61</td>
</tr>
</tbody>
</table>

Tukey HSD

<table>
<thead>
<tr>
<th>Significant Differences between Means</th>
<th>Pairwise Comparisons Pair 1</th>
<th>Pairwise Comparisons Pair 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Asian-Americans 2.56</td>
<td>Caucasian-Americans 2.35</td>
</tr>
</tbody>
</table>

.26202
Table 10b: Mean Values of Social Isolation Subscale of Perceptions of Inclusion/Exclusion Measure, By Race

Overall Model: 2,740 df
Overall F = 24.59
P Value = .0001

<table>
<thead>
<tr>
<th>Scale</th>
<th>Total Sample</th>
<th>Caucasian-Americans</th>
<th>African-Americans</th>
<th>Asian-Americans</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Isolation</td>
<td>1.88</td>
<td>1.83</td>
<td>2.36</td>
<td>2.07</td>
</tr>
</tbody>
</table>

Tukey HSD
Observed
3.321

<table>
<thead>
<tr>
<th>Significant Differences between Means</th>
<th>Pairwise Comparisons Pair 1</th>
<th>Pairwise Comparisons Pair 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>.28551</td>
<td>African-Americans 2.36</td>
<td>Asian-Americans 2.07</td>
</tr>
<tr>
<td>.52601</td>
<td>African-Americans 2.36</td>
<td>Caucasian-Americans 1.83</td>
</tr>
<tr>
<td>.24050</td>
<td>Asian-Americans 2.07</td>
<td>Caucasian-Americans 1.83</td>
</tr>
</tbody>
</table>
Examination of Mentoring Effects on Isolation

Table 11a: Mean Values of Institutional Isolation When Compared by Gender

Overall Model: 741 df
Overall $T = 1.3561$
P Value = .1755

<table>
<thead>
<tr>
<th>Scale</th>
<th>Total Sample</th>
<th>Females</th>
<th>Males</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institutional Isolation</td>
<td>2.38</td>
<td>2.42</td>
<td>2.35</td>
</tr>
</tbody>
</table>

Table 11b: Mean Values of Social Isolation When Compared by Gender

Overall Model: 742 df
Overall $T = 5.5777$
P Value = .0001

<table>
<thead>
<tr>
<th>Scale</th>
<th>Females</th>
<th>Males</th>
</tr>
</thead>
<tbody>
<tr>
<td>(PIES) Social Isolation</td>
<td>2.03</td>
<td>1.79</td>
</tr>
</tbody>
</table>
Table 12a: Mean Values of Institutional Isolation in Which Subgroups are Compared Based on Their Race-Gender Characteristics

Overall Model: 5,737 df  
F Value = 3.09  
P Value = .0090

<table>
<thead>
<tr>
<th>Race</th>
<th>Males</th>
<th>Females</th>
<th>Row Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>African-Americans</td>
<td>2.45</td>
<td>2.69</td>
<td>2.54</td>
</tr>
<tr>
<td>Asian-Americans</td>
<td>2.56</td>
<td>2.75</td>
<td>2.61</td>
</tr>
<tr>
<td>Caucasian-Americans</td>
<td>2.33</td>
<td>2.38</td>
<td>2.35</td>
</tr>
<tr>
<td>Column Totals</td>
<td>2.36</td>
<td>2.42</td>
<td>2.38</td>
</tr>
</tbody>
</table>

Tukey HSD  
Observed  
4.041

There were no significant pairwise comparisons, using Tukey's HSD.
Examination of Mentoring Effects on Isolation

Table 12b: Mean Values of Social Isolation Subscales When Comparisons are Made by Race-Gender Subgroup Membership

Overall Model: 5,737 df
Overall F = 17.87
P Value = .0001

<table>
<thead>
<tr>
<th>Race</th>
<th>Males</th>
<th>Females</th>
<th>Row Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>African-Americans</td>
<td>2.16</td>
<td>2.59</td>
<td>2.35</td>
</tr>
<tr>
<td>Asian-Americans</td>
<td>2.04</td>
<td>2.16</td>
<td>2.07</td>
</tr>
<tr>
<td>Caucasian-Americans</td>
<td>1.75</td>
<td>1.97</td>
<td>1.83</td>
</tr>
<tr>
<td>Column Totals</td>
<td>1.79</td>
<td>2.03</td>
<td>1.88</td>
</tr>
</tbody>
</table>

Tukey HSD

<table>
<thead>
<tr>
<th>Observed</th>
<th>4.041</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Significant Differences between Means</th>
<th>Pairwise Comparisons Pair 1</th>
<th>Pairwise Comparisons Pair 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>.62098</td>
<td>African-American Females</td>
<td>Caucasian-American Females</td>
</tr>
<tr>
<td></td>
<td>2.59</td>
<td>1.97</td>
</tr>
<tr>
<td>.55151</td>
<td>African-American Females</td>
<td>Asian-American Males</td>
</tr>
<tr>
<td></td>
<td>2.59</td>
<td>2.04</td>
</tr>
<tr>
<td>.84342</td>
<td>African-American Females</td>
<td>Caucasian-American Males</td>
</tr>
<tr>
<td></td>
<td>2.59</td>
<td>1.75</td>
</tr>
<tr>
<td>.40834</td>
<td>African-American Males</td>
<td>Caucasian-American Males</td>
</tr>
<tr>
<td></td>
<td>2.16</td>
<td>1.75</td>
</tr>
<tr>
<td>.29190</td>
<td>Asian-American Males</td>
<td>Caucasian-American Males</td>
</tr>
<tr>
<td></td>
<td>2.04</td>
<td>1.75</td>
</tr>
<tr>
<td>.22244</td>
<td>Caucasian-American Females</td>
<td>Caucasian-American Males</td>
</tr>
<tr>
<td></td>
<td>1.97</td>
<td>1.75</td>
</tr>
</tbody>
</table>
Examination of Mentoring Effects on Isolation

Table 13a: Mean Values of Institutional Isolation Subscale, When Partitioned By Age Classification of “Younger” or “Older” Worker: Faculty 45 Years Old or Younger are “Younger” Workers; Those > 45 Years Old are “Older”

Overall Model: 1.741 df
Overall F = 17.66  
P Value = .0001

<table>
<thead>
<tr>
<th>Age Classification</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Younger (Under 45 Years)</td>
<td>2.48</td>
</tr>
<tr>
<td>Older (Over 45 Years)</td>
<td>2.29</td>
</tr>
<tr>
<td>Grand Mean</td>
<td>2.38</td>
</tr>
</tbody>
</table>

Tukey HSD Observed: 2.776

Faculty less than 45 years old experience higher levels of institutional isolation than older faculty.

Table 13b: Mean Values of Social Isolation Subscale, When Partitioned By Age Classification of “Younger” or “Older” Worker: Faculty 45 Years Old or Younger are “Younger” Workers; Those > 45 Years Old are “Older”

Overall Model: 1.742 df
Overall F = 31.85  
P Value = .0001

<table>
<thead>
<tr>
<th>Age Classification</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Younger</td>
<td>1.99</td>
</tr>
<tr>
<td>Older</td>
<td>1.78</td>
</tr>
</tbody>
</table>

Tukey HSD Observed: 2.776

Faculty who are 45 years old or younger experience less social isolation than older faculty.
Table 14a: Mean Value of Institutional Isolation When Comparing Mentored and Unmentored Faculty

Overall Model: 733 df
T Value: 1.3522
P Value: .1767

<table>
<thead>
<tr>
<th>Presence or Absence of Mentoring</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mentored</td>
<td>2.33</td>
</tr>
<tr>
<td>Unmentored</td>
<td>2.40</td>
</tr>
</tbody>
</table>

Table 14b: Mean Value of Social Isolation When Comparing Mentored and Unmentored Faculty

Overall Model: 733 df
T Value: 2.9951
P Value: .0028

<table>
<thead>
<tr>
<th>Presence or Absence of Mentoring</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mentored</td>
<td>1.96</td>
</tr>
<tr>
<td>Unmentored</td>
<td>1.84</td>
</tr>
</tbody>
</table>
Examination of Mentoring Effects on Isolation

**Table 15: Correlation Matrix Comparing the Relationships Among Overall Mentoring (Career Mentoring and Psychosocial Mentoring Combined), Career Mentoring, Psychosocial Mentoring, Institutional Isolation, Social Isolation, Intention to Turnover, and Affective Organizational Commitment Subscales**

<table>
<thead>
<tr>
<th>Type of Mentoring</th>
<th>Mean</th>
<th>S.D.</th>
<th>Institutional Isolation</th>
<th>Social Isolation</th>
<th>Intention to Turnover</th>
<th>Affective Organizational Commitment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Measure of Mentoring</td>
<td>28.88</td>
<td>5.37</td>
<td>-.22**</td>
<td>-.009</td>
<td>-.21**</td>
<td>.25**</td>
</tr>
<tr>
<td>Career Mentoring</td>
<td>17.24</td>
<td>4.09</td>
<td>-.23**</td>
<td>-.014</td>
<td>-.21**</td>
<td>.24**</td>
</tr>
<tr>
<td>Psychosocial Mentoring</td>
<td>11.66</td>
<td>1.81</td>
<td>-.13</td>
<td>.013</td>
<td>-.14*</td>
<td>.20**</td>
</tr>
</tbody>
</table>

*p < .05  ** p < .01

Cronbach’s Alpha for Noc’s Mentoring Roles Instrument = .89
Table 16a: Frequency Distribution, by Race, of Individuals in Mentoring Programs, to Analyze Whether There is a Significant Difference, in the Proportions of Individuals Involved in each Type

<table>
<thead>
<tr>
<th>Frequency Percent</th>
<th>Formal Program</th>
<th>Combined Program</th>
<th>Informal Program</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caucasian-Amer.</td>
<td>27</td>
<td>1</td>
<td>167</td>
<td>195</td>
</tr>
<tr>
<td></td>
<td>11.95</td>
<td>.44</td>
<td>73.89</td>
<td>86.28</td>
</tr>
<tr>
<td></td>
<td>13.85</td>
<td>.51</td>
<td>85.64</td>
<td></td>
</tr>
<tr>
<td></td>
<td>84.58</td>
<td>25.00</td>
<td>87.89</td>
<td></td>
</tr>
<tr>
<td>African-Amer.</td>
<td>4</td>
<td>3</td>
<td>11</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>1.77</td>
<td>1.33</td>
<td>4.87</td>
<td>7.96</td>
</tr>
<tr>
<td></td>
<td>22.22</td>
<td>16.67</td>
<td>61.11</td>
<td></td>
</tr>
<tr>
<td></td>
<td>12.50</td>
<td>75.00</td>
<td>5.79</td>
<td></td>
</tr>
<tr>
<td>Asian-Amer.</td>
<td>1</td>
<td>0</td>
<td>12</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>0.44</td>
<td>0.00</td>
<td>5.31</td>
<td>5.75</td>
</tr>
<tr>
<td></td>
<td>7.69</td>
<td>0.00</td>
<td>92.31</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3.13</td>
<td>0.00</td>
<td>6.32</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>32</td>
<td>4</td>
<td>190</td>
<td>226</td>
</tr>
<tr>
<td></td>
<td>14.16</td>
<td>1.77</td>
<td>84.07</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Table 16b: Chi-Square Statistic Examining if the Proportions of Individuals, by Race, in a Mentoring Program are Significantly Different from that Expected if Random Assignment to Mentoring Had Been Made

<table>
<thead>
<tr>
<th>Statistic</th>
<th>df</th>
<th>Value</th>
<th>Prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-Square</td>
<td>4</td>
<td>27.054</td>
<td>0.000</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>4</td>
<td>13.562</td>
<td>0.009</td>
</tr>
<tr>
<td>Chi-Square</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mantel-Haenszel</td>
<td>1</td>
<td>0.000</td>
<td>0.984</td>
</tr>
<tr>
<td>Chi-Square</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phi Coefficient</td>
<td></td>
<td>0.346</td>
<td></td>
</tr>
<tr>
<td>Contingency</td>
<td></td>
<td>0.327</td>
<td></td>
</tr>
<tr>
<td>Coefficient</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cramer's V</td>
<td></td>
<td>0.245</td>
<td></td>
</tr>
</tbody>
</table>
Table 17a: Frequency Distribution, by Gender, of Individuals in Mentoring Programs

<table>
<thead>
<tr>
<th>Frequency Percent</th>
<th>Formal Program</th>
<th>Combined Program</th>
<th>Informal Program</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Row Percent</td>
<td>17</td>
<td>0</td>
<td>86</td>
<td>103</td>
</tr>
<tr>
<td></td>
<td>7.52</td>
<td>0.00</td>
<td>38.05</td>
<td>45.53</td>
</tr>
<tr>
<td></td>
<td>16.50</td>
<td>0.00</td>
<td>83.50</td>
<td></td>
</tr>
<tr>
<td></td>
<td>53.13</td>
<td>0.00</td>
<td>45.26</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>15</td>
<td>4</td>
<td>104</td>
<td>123</td>
</tr>
<tr>
<td></td>
<td>6.64</td>
<td>1.77</td>
<td>46.02</td>
<td>54.42</td>
</tr>
<tr>
<td></td>
<td>12.20</td>
<td>3.25</td>
<td>84.05</td>
<td></td>
</tr>
<tr>
<td></td>
<td>46.88</td>
<td>100.00</td>
<td>54.74</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>32</td>
<td>4</td>
<td>190</td>
<td>226</td>
</tr>
<tr>
<td></td>
<td>14.16</td>
<td>1.77</td>
<td>84.87</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Table 17b: Chi-Square Statistic Examining if the Proportions of Individuals, by Gender, in a Mentoring Program are Significantly Different from that Expected if Random Assignment to Mentoring Had Been Made

<table>
<thead>
<tr>
<th>Statistic</th>
<th>df</th>
<th>Value</th>
<th>Prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-Square</td>
<td>2</td>
<td>4.092</td>
<td>0.129</td>
</tr>
<tr>
<td>Likelihood Ratio Chi-Square</td>
<td>2</td>
<td>5.606</td>
<td>0.061</td>
</tr>
<tr>
<td>Mantel-Haenszel Chi-Square</td>
<td>1</td>
<td>0.326</td>
<td>0.568</td>
</tr>
<tr>
<td>Phi Coefficient</td>
<td></td>
<td>0.135</td>
<td></td>
</tr>
<tr>
<td>Contingency Coefficient</td>
<td></td>
<td>0.133</td>
<td></td>
</tr>
<tr>
<td>Cramer's V</td>
<td></td>
<td>0.135</td>
<td></td>
</tr>
</tbody>
</table>
Examination of Mentoring Effects on Isolation

Table 18a: Frequency Distribution, by Race, of Individuals in Mentoring Programs to Determine if Race affects the Extent to Which Individuals are Involved in Mentoring Programs

<table>
<thead>
<tr>
<th>Frequency Percent</th>
<th>Unmentored</th>
<th>Mentored</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Row Percent</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Column Percent</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian-Americans</td>
<td>450</td>
<td>195</td>
<td>645</td>
</tr>
<tr>
<td></td>
<td>61.22</td>
<td>26.53</td>
<td>87.76</td>
</tr>
<tr>
<td></td>
<td>69.77</td>
<td>30.23</td>
<td></td>
</tr>
<tr>
<td></td>
<td>88.41</td>
<td>86.28</td>
<td></td>
</tr>
<tr>
<td>African-Americans</td>
<td>23</td>
<td>18</td>
<td>41</td>
</tr>
<tr>
<td></td>
<td>3.13</td>
<td>2.45</td>
<td>5.58</td>
</tr>
<tr>
<td></td>
<td>56.10</td>
<td>43.90</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4.52</td>
<td>7.96</td>
<td></td>
</tr>
<tr>
<td>Asian-Americans</td>
<td>36</td>
<td>13</td>
<td>49</td>
</tr>
<tr>
<td></td>
<td>4.90</td>
<td>1.77</td>
<td>6.67</td>
</tr>
<tr>
<td></td>
<td>73.47</td>
<td>26.53</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7.07</td>
<td>5.75</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>509</td>
<td>226</td>
<td>735</td>
</tr>
<tr>
<td></td>
<td>69.25</td>
<td>30.75</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Table 18b: Chi-Square Statistic Examining if the Proportions of Individuals, by Race, in a Mentoring Program is Significantly Different from that Expected if Random Assignment to Mentoring Had Been Made

<table>
<thead>
<tr>
<th>Statistic</th>
<th>df</th>
<th>Value</th>
<th>Prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-Square</td>
<td>2</td>
<td>3.822</td>
<td>0.148</td>
</tr>
<tr>
<td>Likelihood Ratio Chi-Square</td>
<td>2</td>
<td>3.632</td>
<td>0.163</td>
</tr>
<tr>
<td>Mantel-Haenszel Chi-Square</td>
<td>1</td>
<td>0.007</td>
<td>0.933</td>
</tr>
<tr>
<td>Phi Coefficient</td>
<td></td>
<td>0.072</td>
<td></td>
</tr>
<tr>
<td>Contingency Coefficient</td>
<td></td>
<td>0.072</td>
<td></td>
</tr>
<tr>
<td>Cramer’s V</td>
<td></td>
<td>0.072</td>
<td></td>
</tr>
</tbody>
</table>
Table 19a: Frequency Distribution, by Gender, of Individuals in Mentoring Programs

<table>
<thead>
<tr>
<th>Frequency Percent</th>
<th>Unmentored</th>
<th>Mentored</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Row Percent</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Column Percent</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>369</td>
<td>105</td>
<td>474</td>
</tr>
<tr>
<td></td>
<td>50.2</td>
<td>14.29</td>
<td>64.49</td>
</tr>
<tr>
<td></td>
<td>77.85</td>
<td>22.15</td>
<td></td>
</tr>
<tr>
<td></td>
<td>72.50</td>
<td>46.46</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>140</td>
<td>121</td>
<td>261</td>
</tr>
<tr>
<td></td>
<td>19.05</td>
<td>16.46</td>
<td>35.51</td>
</tr>
<tr>
<td></td>
<td>53.64</td>
<td>46.36</td>
<td></td>
</tr>
<tr>
<td></td>
<td>27.50</td>
<td>53.54</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>509</td>
<td>226</td>
<td>735</td>
</tr>
<tr>
<td></td>
<td>69.25</td>
<td>30.75</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Table 19b: Chi-Square Statistic Examining if the Proportions of Individuals, by Gender, in a Mentoring Program are Significantly Different from that Expected if Random Assignment to Mentoring Had Been Made

<table>
<thead>
<tr>
<th>Statistic</th>
<th>df</th>
<th>Value</th>
<th>Prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-Square</td>
<td>1</td>
<td>46.324</td>
<td>0.000</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>1</td>
<td>45.332</td>
<td>0.000</td>
</tr>
<tr>
<td>Mantel-Haenszel</td>
<td>1</td>
<td>45.261</td>
<td>0.000</td>
</tr>
<tr>
<td>Phi Coefficient</td>
<td></td>
<td>0.251</td>
<td></td>
</tr>
<tr>
<td>Contingency Coefficient</td>
<td>0.243</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cramer's V</td>
<td></td>
<td>0.251</td>
<td></td>
</tr>
</tbody>
</table>
Table 20a: Level of Career Mentoring in Cross-Cultural Mentoring Relationships (Where Relationships may be Cross-Gender, Cross-Race or a Combination)

Overall Model: 3.217 df
F Value: .82
P Value: .4865

<table>
<thead>
<tr>
<th>Gender</th>
<th>Race</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Same</td>
<td>17.7</td>
<td>17.3</td>
<td>17.44</td>
</tr>
<tr>
<td></td>
<td>Different</td>
<td>16.1</td>
<td>17.2</td>
<td>17.29</td>
</tr>
<tr>
<td>Column Totals</td>
<td>17.51</td>
<td>16.46</td>
<td></td>
<td>17.37</td>
</tr>
</tbody>
</table>

Tukey HSD Observed: 3.662

There were no significant pairwise comparisons.

Table 20b: Level of Career Mentoring in Cross-Gender Mentoring Relationships

Overall Model: 1.219 df
F Value: .83
P Value: .4813

<table>
<thead>
<tr>
<th>Gender</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Same</td>
<td>17.4</td>
<td></td>
</tr>
<tr>
<td>Different</td>
<td>17.3</td>
<td></td>
</tr>
</tbody>
</table>

Tukey HSD Observed: 2.787

There were no significant pairwise comparisons.
Examination of Mentoring Effects on Isolation

**Table 20c: Level of Career Mentoring in Cross-Race Mentoring Relationships**

Overall Model: 1,219 df
F Value: 1.66
P Value: .4160

<table>
<thead>
<tr>
<th>Race</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Same</td>
<td>Different</td>
</tr>
<tr>
<td>17.5</td>
<td>16.5</td>
</tr>
</tbody>
</table>

Tukey HSD

<table>
<thead>
<tr>
<th>Observed</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2.787</td>
<td></td>
</tr>
</tbody>
</table>

There were no significant pairwise comparisons.
Examination of Mentoring Effects on Isolation

Table 20d: Level of Psychosocial Mentoring in Cross-Cultural Mentoring Relationships (Where Relationships maybe Cross-Gender, Cross-Race or a Combination)

Overall Model: 3,217 df
F Value: .56
P Value: .6438

<table>
<thead>
<tr>
<th></th>
<th>Race</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Gender</td>
<td>Same</td>
</tr>
<tr>
<td>Same</td>
<td></td>
<td>11.7</td>
</tr>
<tr>
<td>Different</td>
<td></td>
<td>14.5</td>
</tr>
</tbody>
</table>

Tukey HSD
Observed
2.787

There were no significant pairwise comparisons.

Table 20e: Level of Psychosocial Mentoring in Cross-Gender Mentoring Relationships

Overall Model: 1,220 df
F Value: .09
P Value: .7649

<table>
<thead>
<tr>
<th></th>
<th>Race</th>
</tr>
</thead>
<tbody>
<tr>
<td>Same</td>
<td></td>
</tr>
<tr>
<td>Different</td>
<td></td>
</tr>
<tr>
<td></td>
<td>11.7</td>
</tr>
<tr>
<td></td>
<td>11.6</td>
</tr>
</tbody>
</table>

Tukey HSD
Observed
2.787

There were no significant pairwise comparisons.
Examination of Mentoring Effects on Isolation

Table 20f: Level of Psychosocial Mentoring in Cross-Race Mentoring Relationships

Overall Model: 3.217 df
F Value: .56
P Value: .6438

<table>
<thead>
<tr>
<th>Race</th>
<th>Same</th>
<th>Different</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>11.6</td>
<td>11.7</td>
</tr>
</tbody>
</table>

Tukey HSD
Observed

2.787

There were no significant pairwise comparisons.
Examination of Mentoring Effects on Isolation

Table 21a: Level of Institutional Isolation in Cross-Cultural Mentoring Relationships (Where Relationships maybe Cross-Gender, Cross-Race or a Combination)

Overall Model: 3,218 df
F Value: 3.14
P Value: .0263

<table>
<thead>
<tr>
<th>Gender</th>
<th>Race</th>
<th>Row Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Same</td>
<td>Different</td>
</tr>
<tr>
<td>Same</td>
<td>2.25</td>
<td>2.31</td>
</tr>
<tr>
<td>Different</td>
<td>2.64</td>
<td>2.65</td>
</tr>
<tr>
<td>Column Totals</td>
<td>2.27</td>
<td>2.64</td>
</tr>
</tbody>
</table>

Tukey HSD

<table>
<thead>
<tr>
<th>Observed</th>
<th>Critical Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.787</td>
<td></td>
</tr>
</tbody>
</table>

There were no significant pairwise comparisons.

Table 21b: Level of Institutional Isolation in Cross-Gender Mentoring Relationships

Overall Model: 1,220 df
F Value: .17
P Value: .6842

<table>
<thead>
<tr>
<th>Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>Same</td>
</tr>
<tr>
<td>Different</td>
</tr>
<tr>
<td>2.31</td>
</tr>
<tr>
<td>2.34</td>
</tr>
</tbody>
</table>

Tukey HSD

<table>
<thead>
<tr>
<th>Observed</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.787</td>
</tr>
</tbody>
</table>

There were no significant pairwise comparisons.
**Table 21c: Level of Institutional Isolation in Cross-Race Mentoring Relationships**

Overall Model: 1,220 df  
F Value: 9.21  
P Value: .0027

<table>
<thead>
<tr>
<th>Race</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Same</td>
<td>2.27</td>
<td></td>
</tr>
<tr>
<td>Different</td>
<td>2.64</td>
<td></td>
</tr>
</tbody>
</table>

Tukey HSD  
Observed  
2.787

Individuals whose mentors were of a different race than theirs experienced higher levels of institutional isolation than individuals in same-race relationships.
### Table 22a: Level of Social isolation in Cross-Cultural Mentoring Relationships (Where Relationships maybe Cross-Gender, Cross-Race or a Combination)

Overall Model: 3,218 df  
F Value: 4.95  
P Value: .0024

<table>
<thead>
<tr>
<th>Gender</th>
<th>Race</th>
<th>Row Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Same</td>
<td>Different</td>
</tr>
<tr>
<td>Same</td>
<td>1.87</td>
<td>1.97</td>
</tr>
<tr>
<td>Different</td>
<td>2.28</td>
<td>2.34</td>
</tr>
<tr>
<td>Column Totals</td>
<td>1.91</td>
<td>2.30</td>
</tr>
</tbody>
</table>

Tukey HSD  
Observed: 2.787

<table>
<thead>
<tr>
<th>Significant Differences between Means</th>
<th>Pairwise Comparisons Pair 1</th>
<th>Pairwise Comparisons Pair 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>.3814</td>
<td>Different Race</td>
<td>Different Race</td>
</tr>
</tbody>
</table>

Protégés whose mentor is of a different race than theirs experienced more social isolation than individuals in same-race relationships.
Table 22b: Level of Social Isolation in Cross-Gender Mentoring Relationships

Overall Model: 1,220 df
F Value: 1.01
P Value: .3167

<table>
<thead>
<tr>
<th>Gender</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Same</td>
<td>1.93</td>
</tr>
<tr>
<td>Different</td>
<td>2.01</td>
</tr>
</tbody>
</table>

Tukey HSD
Observed
2.787

There were no significant pairwise comparisons.

Table 22c: Level of Social Isolation in Cross-Race Mentoring Relationships

Overall Model: 1,220 df
F Value: 13.81
P Value: .0003

<table>
<thead>
<tr>
<th>Race</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Same</td>
<td>1.91</td>
</tr>
<tr>
<td>Different</td>
<td>2.30</td>
</tr>
</tbody>
</table>
Table 23a: Level of Career Mentoring when Compared by Gender, in Response to the Question: Are Males and Females Given the Same Level of Career Mentoring?

Overall Model: 224 df
T Value: .2601
P Value: .80

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>17.2</td>
</tr>
<tr>
<td>Females</td>
<td>17.3</td>
</tr>
</tbody>
</table>

Table 23b: Level of Career Mentoring when Compared by Race, in Response to the Question: Are African-Americans, Caucasian-Americans, and Asian-Americans Given the Same Level of Career Mentoring?

Overall Model: 2,223 df
F Value: 1.40
P Value: .2478

<table>
<thead>
<tr>
<th>Race</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>African-Americans</td>
<td>18.3</td>
</tr>
<tr>
<td>Caucasian-Americans</td>
<td>17.2</td>
</tr>
<tr>
<td>Asian-Americans</td>
<td>15.7</td>
</tr>
</tbody>
</table>

Tukey HSD

| Observed | 3.337 |

There were no significant pairwise comparisons.
Table 23c: Level of Psychosocial Mentoring when Compared by Gender, in Response to the Question: Are Males and Females Given the Same Level of Psychosocial Mentoring?

Overall Model: 224 df
T Value: .08
P Value: .9325

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>11.62</td>
</tr>
<tr>
<td>Females</td>
<td>11.65</td>
</tr>
</tbody>
</table>

Table 23d: Level of Psychosocial Mentoring when Compared by Race, in Response to the Question: Are African-Americans, Caucasian-Americans, and Asian-Americans Given the Same Level of Psychosocial Mentoring?

Overall Model: 2,220 df
F Value: 1.96
P Value: .1438

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>African-Americans</td>
<td>12.4</td>
</tr>
<tr>
<td>Caucasian-Americans</td>
<td>11.6</td>
</tr>
<tr>
<td>Asian-Americans</td>
<td>11.5  11.6</td>
</tr>
</tbody>
</table>

Tukey HSD

<table>
<thead>
<tr>
<th></th>
<th>Observed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3.337</td>
</tr>
</tbody>
</table>

There were no significant pairwise comparisons.
Examination of Mentoring Effects on Isolation

Table 23e: Level of Career Mentoring when Compared By Age Classification of “Younger” or “Older”

Overall Model: 1,224 df
F Value: .83
P Value: .3625

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Younger</td>
<td>17.45</td>
</tr>
<tr>
<td>Older</td>
<td>16.95 17.24</td>
</tr>
</tbody>
</table>

Table 23f: Level of Psychosocial Mentoring when Compared By Age Classification of “Younger” or “Older”

Overall Model: 1,224 df
F Value: .01
P Value: .9170

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Younger</td>
<td>11.65</td>
</tr>
<tr>
<td>Older</td>
<td>11.62 11.64</td>
</tr>
</tbody>
</table>

Tukey HSD
Observed
2.787

There were no significant pairwise comparisons.
Table 24a: Mean Value of Institutional Isolation, when Examining Types of Mentoring Programs: Formal, Informal and Combined

Overall Model: 2,223
F Value: .90
P Value: .4078

<table>
<thead>
<tr>
<th>Program</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal</td>
<td>2.47</td>
</tr>
<tr>
<td>Informal</td>
<td>2.32</td>
</tr>
<tr>
<td>Combined</td>
<td>2.31</td>
</tr>
</tbody>
</table>

Tukey HSD
Observed
3.337

There were no significant pairwise comparisons.

Table 24b: Mean Value of Social Isolation, when Examining Types of Mentoring Programs: Formal, Informal and Combined

Overall Model: 2,224 df
F Value: 2.04
P Value: .132

<table>
<thead>
<tr>
<th>Program</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal</td>
<td>2.02</td>
</tr>
<tr>
<td>Informal</td>
<td>1.95</td>
</tr>
<tr>
<td>Combined</td>
<td>2.46</td>
</tr>
</tbody>
</table>
Correlates and Consequences of Institutional and Social Isolation

Socialization Practices
  Mentoring:
    -- Career
    -- Psychosocial

Racialized and Gendered Workplace

Independent Variables
  Individual Characteristics:
    -- Race
    -- Gender
    -- Age
    -- Need for Affiliation
  Organizational Characteristics:
    -- Workforce Composition
    -- Majority College/HBCU
    -- Department/Occupational Grouping

Intermediate Outcomes
  -- Institutional Isolation
  -- Social Isolation

Outcomes:
  -- Affective Organizational Commitment
    -- Intent to Turnover
JANICE WITT SMITH

Department of Management
R.B. Pamplin College of Business
Virginia Polytechnic Institute
and State University (Virginia Tech)
Blacksburg, VA 24061-0233

225 Arrowhead Trail
Christiansburg, VA 24073
(703) 382-2514 (Home)
(703) 231-9623 (Office)

EDUCATION

Ph.D. Organization Studies (with emphasis on Human Resource Management and Organizational Behavior)
Minor in Industrial/Organizational Psychology
Virginia Polytechnic Institute and State University
Dissertation Topic: An Examination of the Effects of Mentoring on Social and Institutional Isolation
Completion date: April 4, 1995

MBA Human Resource Management
May 1991, Virginia Polytechnic Institute and State University

BS Business Administration and Management
May 1977, Indiana University-Indianapolis, Indiana

RESEARCH

Publications


