To the Graduate Council:

I am submitting herewith a dissertation written by Laura Ann Davenport entitled "An Examination of the Relationships Between Career Plateauing and Job Attitudes." I have examined the final copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Industrial/Organizational Psychology.

Joyce E. A. Russell, Major Professor

We have read this dissertation
and recommend its acceptance:

Accepted for the Council:

Associate Vice Chancellor
and Dean of The Graduate School

AN EXAMINATION OF THE RELATIONSHIPS BETWEEN CAREER PLATEAUING AND JOB ATTITUDES

A Dissertation

Presented for the

Doctor of Philosophy

Degree

The University of Tennessee, Knoxville

Laura Ann Davenport

December 1993

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ACKNOWLEDGMENTS

There are a number of people whom I would like to thank for the assistance they have given me in preparing this manuscript. First, I would like to thank the members of my dissertation committee. Dr. Joyce Russell, my dissertation chairperson, was very enthusiastic about my project from the beginning. I am grateful to her for the number of suggestions she has made to help improve the final document. Dr. John Lounsbury was always available to share his insights about everything from survey development to presenting my results. Dr. H. Dudley Dewhirst provided encouragement and kept me striving to reach a conceptual understanding of the variables under investigation. Dr. John Philpot contributed his statistical expertise, and he helped me understand the complex nature of the real-world relationships I was examining.

There are a number of others at the university who helped me prepare this manuscript, and I would like to acknowledge them as well. Thanks to Dr. Michael Rush for teaching me how to use a software package that allowed me to illustrate the moderator relationships. Thanks, also, to Ann Lacava for providing technical guidance for formatting the text, and to Bob Muenchen for helping me organize my data file and de-bug my computer programs. I would also like to acknowledge the assistance and support provided by the Department of Management's secretarial staff, June Trbovich, Jackie Cook, Carolyn Alfrey, and Maggie Bakalar.

I would like to give special thanks to Dr. John Milliman at the University of Colorado for providing me the scales he developed to measure career plateauing and for encouraging me to pursue the field of study. I would also like to express my appreciation to Ellen Kidd at the Fort Sanders Health System for supporting my research study and providing me a source for data collection. Thanks, also, to Jim Hall at the Tennessee Valley Authority, for providing me the flexibility I needed to finish my dissertation.

There are a number of other individuals whom I would like to thank for providing me support and encouragement along the way. Thanks to all of my friends, family, and associates

who have helped me throughout this process. Many of you have touched my life and made the journey a lot more enjoyable than it could have been. A special thanks to Lynn Curtis, Stephanie Myers, Jackie Jacobs, Denise Campbell, Tom Fahey, Maria Socolof, and Ginger Nixon for listening to my progress reports and believing that I would actually finish this dissertation. Thanks to Esther and Steve Long for their special friendship and for all of the advice and wisdom they have shared with me. Thanks, also, to Carol and Leon Jacobs, two of my dearest friends, who have been waiting for years for me to finish my "story."

I would especially like to express my sincerest appreciation to my family. There is no doubt that these are the people who supported me the most even when I was too busy to tell them how much I needed and appreciated their love and encouragement. I am grateful to my parents, Linda Fefee and the late Donald H. Fefee, for always encouraging me to pursue my dreams and for believing in me from the very beginning. Thanks to my sister, Donna Fefee, for contributing her own support and for offering her project-related points of view at every step. Special thanks to Donald J. and Madeleine Fefee for providing encouragement along the way. I am also thankful for the love and support of my mother-in-law, Nancy Crane. In addition to being a wonderful "other mother," she always understood when I had to turn down family fun in order to study. Finally, I would like to thank my husband, John Davenport, for seeing me through every milestone that has lead towards my doctoral degree. I never would have made it without his everlasting love, support, and sense of humor.

ABSTRACT

The present study examined the relationships between career plateauing and job attitudes. Career plateauing was operationalized in terms of hierarchical career plateauing (perceptions of feeling limited in terms of promotional opportunities within the current organization) and job content plateauing (perceptions of feeling limited in terms of learning and doing new things on the job). It was hypothesized that perceptions of career plateauing would be negatively related to education level, facets of job satisfaction, organizational commitment, and number of hours worked per week, and positively related to age, job-related health concerns, and intent to quit. It was also hypothesized that perceptual measures of plateauing would account for a significant amount of additional variance in the dependent measures than the traditional measure of plateauing (job tenure). Finally, a number of variables were investigated as potential moderators: job tenure, promotion aspiration, life satisfaction, alternative job opportunities, participation in developmental activities, job content plateauing, and age.

Participants were 956 employees working for eight health care facilities in a southeastern state. All positions within the organizations were asked to participate, including nurses, clerical personnel, and supervisors. A survey questionnaire was used to collect the data. Questionnaires were distributed to employees when they received their pay checks, and participants were asked to return their surveys in pre-addressed, stamped envelopes.

Findings indicated that perceptions of hierarchical career plateauing were negatively related to education level, facets of job satisfaction, and organizational commitment, and positively related to age, job-related health concerns, and intent to quit. Perceptions of job content plateauing were negatively related to education level, facets of job satisfaction, organizational commitment, and number of hours worked per week, and positively related to intent to quit. Both plateauing measures accounted for a significant amount of additional variance in the dependent measures with the exceptions of number of hours worked for hierarchical career plateauing, and job-related health concerns for job content plateauing. A

number of moderating variables received partial support, including job tenure, promotion aspiration, and age. Limitations of the study as well as theoretical and practical implications were discussed. Suggestions for future research were also addressed.

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CHAPTER I

INTRODUCTION

A career plateau was originally defined as the "point in a career where the likelihood of additional hierarchical promotion is very low" (Stoner, Ference, Warren, & Christensen, 1974, p. 31). Career plateaus typically occur during the middle or late career years, and they are becoming more prevalent in organizations. It has been predicted that the number of employees reaching career plateaus will continue to rise. This may be due to a number of demographic, economic, and individual factors (Elsass & Ralston, 1989).

Demographically, the baby boom generation is aging, the work force is becoming more educated, the mandatory retirement age is rising, and a greater number of minorities and women are entering managerial ranks (Greenhaus, 1987; Leibowitz, Kaye, & Farren, 1990; Near, 1980). These factors are all related to increasing competition for the existing middle and upper management jobs. Individuals who are passed over for promotion may become plateaued.

Poor economic conditions exacerbate the incidence of career plateauing. Many organizations are restructuring (eliminating middle management positions) in order to survive the hard times (Dewhirst, 1991; Leibowitz et al., 1990). Others are downsizing and eliminating positions altogether (Chao, 1990; Dewhirst, 1991). There are many organizations experiencing slow growth, if they are reporting any growth at all (Greenhaus, 1987). Thus, poor economic conditions have eliminated many of the positions that individuals have previously aspired to. Employees are forced to compete for the few middle and upper level positions that remain. Those who find themselves without positions to advance to may become plateaued.

In addition to the demographic and economic factors contributing to the incidence of career plateauing, there are more personal reasons that may account for an increase in career plateauing. At the individual level, it has been suggested that some employees are less committed to work and are no longer willing to make the sacrifices that are needed to earn

promotions (Near, 1980). Other employees may be more willing to forego promotions in order to maintain a healthy balance between their work and nonwork activities (Leibowitz et al., 1990). Individuals who choose to decline promotions, for whatever reasons, may become plateaued.

The incidence of career plateauing must be recognized and addressed not only because of the increasing number of plateaus encountered, but also because career plateaus have a wide variety of consequences for organizations. Many of these consequences may have a negative impact on employees and their organizations. Those most frequently cited include increased employee frustration and decreased productivity (Dawson, 1983; Rantze & Feller, 1985). Near (1980) suggested that plateaued employees may withdraw from their jobs or look for new jobs in other firms. Although empirical research in the field has noted conflicting results, some researchers have found that plateaued employees suffer from decreased job satisfaction (Burke, 1989; Orpen, 1986) and higher levels of stress, work alienation, and intention to quit (Burke, 1989). More recent research in the field has suggested that an employee's perception of reaching a career plateau is negatively related to various facets of job satisfaction (Chao, 1990; Ettington, 1992; Milliman, 1992a, 1992b; Tremblay, Roger & Toulouse, 1992), job involvement (Milliman, 1992a, 1992b), job performance (Ettington, 1992; Milliman, 1992a), and organizational commitment (Milliman, 1992a, 1992b), and is positively related to an individual's propensity to leave the organization (Milliman, 1992a, 1992b). In addition, negative employee reactions to the career plateau, including productivity loss, employee frustration, loss in employee morale, decreased job satisfaction, and increased turnover, may be costly to organizations (Dawson, 1983; Near, 1980; Rantze & Feller, 1985).

Despite negative consequences of being plateaued, there may be some positive side effects for individuals. For example, some employees who experience career plateaus have been able to devote more time to family, leisure, or community activities (Sisto, 1990). Other plateaued employees may take the time to develop interests and skills that may eventually lead to second careers (Kelly, 1985).

In order to better understand the potential consequences of the career plateau, further research is needed. It is well known that previous research in this area has been marred by mixed results that may be attributed to both conceptual and methodological problems. For example, conceptual and operational definitions of the plateauing construct are still evolving. In addition, many researchers have focused primarily on examining differences between plateaued and nonplateaued employees, while ignoring the investigation of differences among plateaued employees themselves (i.e., assuming they are a homogeneous group). Furthermore, subjects included in previous studies have consisted primarily of white males, despite the fact that the work force has increasingly become more diverse.

Recent developments have begun to address these issues to extend the research in the area of career plateauing. Conceptually, the career plateau has typically referred to an employee being limited in his or her promotional opportunities within an organization. Feldman and Weitz (1988) suggested that increases in job responsibility rather than hierarchical level may more adequately describe a career plateau. This development has been captured by Milliman's (1992a) construct labeled the "job content" plateau and should be included in future research.

Operationally, multi-item perceptual measures have been developed and used along with the more traditional and objective job tenure measure in order to assess the career plateau construct (Chao, 1990; Ettington, 1992; Milliman, 1992a, 1992b; Tremblay, et al., 1992). These measures allow researchers to assess the degree to which an employee feels plateaued. Psychometric properties of the instruments have also been investigated and reported. Comparisons have been made between the subjective (perceptual) and objective (e.g., job tenure) measures, with the subjective measures often accounting for more variance in outcome variables than the traditional, objective measures.

Whether the career plateau is measured subjectively or objectively, there is movement by researchers towards assessing the construct along a continuum. Both job tenure and the perception of the plateau are considered to be continuous, allowing researchers to avoid

creating a false dichotomy of plateaued and nonplateaued employees. Differences among plateaued employees themselves are then assessed in terms of the length and/or perceived strength of the perceived plateau.

In addition, researchers have started to examine potential mediating and moderating factors of the relationship between career plateauing and a variety of outcome variables (Chao, 1990; Gerpott & Domsch, 1987; Milliman, 1992a, 1992b; Tremblay et al., 1992). Identifying moderators of this relationship may help to unravel some of the mixed results encountered in previous research. In addition, research findings may help direct practitioners in the development of appropriate career development strategies for employees who reach career plateaus. For example, if an employee's aspiration for promotion is found to moderate the relationship between career plateauing and job attitudes, specific programs might be developed to help employees with high aspirations for promotion cope with reduced opportunities for advancement. Early identification of these individuals might allow for early intervention to prevent losses in productivity, satisfaction, and morale. The ability to identify employees who might respond more positively to a career plateau should enable career development professionals to monitor the progress of these employees and to ensure that their productivity and satisfaction do not decline over time.

Only a few researchers have incorporated a substantial number of women in their studies of career plateauing. Milliman's (1992a, 1992b) sample of health care workers, small materials company workers, and clerical employees consisted of 50% women, while Chao's (1990) research included 28.1% women. Since much of the research on career plateauing has focused on managers, researchers may have found only a limited number of women and minorities in these middle- and upper-level positions. These individuals may plateau at lower levels than white males due to an organizational barrier referred to as the "glass ceiling" (Solomon, 1990). Future research on plateauing is needed utilizing more diverse samples such as women and/or minorities. Future research should also examine issues associated with

plateauing in non-managerial positions. This would enhance the generalizability of the findings.

The purpose of the present study is to build on and advance research in the area of career plateauing. Potential correlates of the career plateau are examined using subjective measures of both hierarchical and job content career plateauing. Information about the traditional, objective measure of plateauing (job tenure) is collected. The utility of the various plateauing measures in accounting for variance in the outcome measures (job attitudes) is examined. Potential moderators of the relationship between career plateauing and the outcome variables are investigated. Following the lead of previous research, job tenure, promotion aspiration, and job content plateauing are examined as potential moderating variables (Chao, 1990; Milliman, 1992a, 1992b; Tremblay et al., 1992). Unique to this research, life satisfaction, participation in employee development opportunities, alternative job opportunities, and age are also investigated as potential moderators.

The present study extends previous research on career plateauing by investigating potential moderators that have not been previously studied. It examines plateauing issues with a sample consisting primarily of women, which has not been typical of previous plateauing research. The sample includes employees at all levels of the organization, thus recognizing that perceptions of career plateauing may not be limited to managerial populations. In addition to these contributions, previous findings regarding the relationship of career plateauing to a number of job attitudes should be replicated in an effort to increase the knowledge of plateauing. The investigation of job content plateauing is a new development in the field (Milliman, 1992a, 1992b). Replication and extension of findings in this area might help direct further research on career plateaus.

On a practical note, human resource and career development professionals may be interested in the plateaued employee. Identifying correlates of career plateauing may help organizations recognize the need to develop appropriate interventions for the plateaued employee. The investigation of moderating variables may help practitioners identify factors

within their control for which specific programs may be targeted (e.g., development opportunities, job content plateauing), and also allow practitioners to monitor factors to determine which employees may react most severely in the event of a career plateau (e.g., promotion aspiration, life satisfaction, age). With an increased knowledge of the correlates and moderators of career plateauing, career development interventions may be designed and implemented to prevent potentially negative consequences to plateauing.

CHAPTER II

REVIEW OF THE LITERATURE

In recent years, the topic of career plateauing has gained popularity. It has been the subject of books (Bardwick, 1986; Stoner, Ference, Warren, & Christensen, 1980), newspaper and magazine articles (Gates, 1990; Kilborn, 1990; McGarvey, 1991), and empirical research (Carnazza, Korman, Ference, & Stoner, 1981; Chao, 1990; Milliman, 1992a, 1992b; Near, 1985). While some publications have focused on the prevalence of career plateauing in U.S. companies and have addressed why the plateau is occurring with greater frequency (Greenhaus, 1987; Near, 1980), others have offered advice to individuals wishing to overcome a career plateau (Burr, 1986; Yarmon, 1982). Still others have suggested ways for management to keep their plateaued employees productive (Harvey & Schultz, 1987; Payne, 1984).

Review of Previous Research

Conceptual Definition of the Career Plateau

A "career plateau" was originally defined as the "point in a career where the likelihood of additional hierarchical promotion is very low" (Stoner et al., 1974, p. 31). This definition of the plateau was from an organizational perspective. That is, it intended that the organization, and not the individual, would determine when an employee has reached the point where he or she was no longer a likely candidate for promotion.

Refinements have since been made to the original definition of career plateauing. For example, while the initial description specifies an end to vertical or hierarchical promotion, Gerpott and Domsch (1987) suggest that plateauing implies an end to lateral or horizontal job changes as well. Feldman and Weitz (1988) suggested that increased responsibility may also be an important aspect of career plateauing. According to these researchers, plateauing occurs when the likelihood of an employee receiving assignments with greater responsibility is low.

It is difficult to pinpoint exactly when a plateau has been reached (Chao, 1990; Dewhirst, 1991; Elsass & Ralston, 1989). A career plateau is ambiguous, and an employee's

recognition of reaching a plateau probably occurs over a period of time. This recognition suggests that it is difficult to classify individuals as "plateaued" or "nonplateaued" based on a standard, objective criteria (e.g., job tenure).

Chao (1990) refined the definition of career plateauing by emphasizing that an employee's perception of whether or not he or she has reached a career plateau may be more important than the actual length of time that he or she has spent in any one position (job tenure). This latest development has created a new trend in plateauing research. Measures assessing individual perceptions of career plateauing along a continuum have begun to replace previously used measures of job tenure.

Prevalence of Career Plateauing

Career plateauing appears to be quite prevalent in organizations. Near (1980) found as many as 60% of managers were plateaued in a survey that she had conducted. In a later study, Near (1985) identified nearly 54% of her managerial sample as plateaued. Both of these studies used a one-item measure asking the employee to rate his or her likelihood of receiving a promotion within the next twenty years in order to identify employees as plateaued or nonplateaued. In Orpen's (1986) research, nearly 39% of his sample was reported to be plateaued. He classified employees as plateaued if they had been in their present position for at least seven years and if their job tenure was greater than the average tenure of their predecessors in the same position. Using job tenure, alone, as a measure of plateauing, Savery (1989) classified nearly 37% of his respondents as plateaued. Employees who had not received a promotion in the last five years were designated as plateaued. In another example, Burke (1989) reported 34% of his sample of police officers to be at a career plateau, since they had been in their present positions for 16 or more years.

The incidence of career plateauing may be related to the type of organization under investigation. Slocum, Cron, Hansen, and Rawlings (1985) studied whether the business strategies adopted by firms had a significant effect on the prevalence of the career plateau. These researchers used the typology described by Miles, Snow, Meyer, and Coleman (1978) to

classify the organizations in their study as either "defenders" or "analyzers." Using this strategic typology, a defender tends to operate in a narrow and stable domain. Defenders do not invest in the development of additional products and markets, and they tend to value efficiency. Analyzers try to maximize their profit while minimizing their risk. Analyzers may invest in the development of additional products and markets, but they try to maintain some of their stability while doing so (Miles et al., 1978).

Slocum et al. (1985) found that nearly 66% of employees were plateaued in their sample of defender firms, while only 26% of the employees sampled within analyzer firms were plateaued. In a longitudinal study by Stout, Slocum, and Cron (1988), 71% of the salespeople surveyed were plateaued throughout their three year study and another 12% became plateaued while the study was in progress. This high percentage of plateaued individuals is consistent with earlier findings, as the firm in this study was identified as following a defender strategy. According to Stout et al. (1988), promotions should naturally occur less often in defender firms because defender organizations are no longer expanding, and are focused on controlling costs.

It has been speculated that the incidence of career plateauing will rise in the future decade for several reasons. Conditions have evolved in three main categories that contribute to career plateauing: demographic, economic, and individual. Demographic changes in the work place that may add to career plateauing include the aging of the baby boom generation, the greater education levels obtained by the work force, and an increase in the number of women and minorities competing for middle management positions (Greenhaus, 1987; Leibowitz et al., 1990; Near, 1980). These changes suggest that a much greater number of qualified individuals will be in line for a limited number of promotions. Consequently, many of them will be denied the opportunity to move higher within the corporate hierarchy.

In addition to the demographic changes cited above, poor economic conditions are slowing organizational growth (Greenhaus, 1987) and encouraging many organizations to restructure. The traditional hierarchical organization is shaped like a pyramid, with fewer

positions at the upper levels. As employees rise within this hierarchy, there are fewer positions available for them to continue their advancement (Dewhirst, 1991; Greenhaus, 1987; Near, 1980). While this factor, alone, may contribute to plateauing, poor economic conditions make matters even worse. Some organizations are trying to eliminate middle management layers. They are becoming flatter in an effort to cope with the poor economy (Dewhirst, 1991; Leibowitz et al., 1990; Schwartz, 1991). Other organizations find themselves downsizing, eliminating some positions altogether (Chao, 1990; Dewhirst, 1991). These organizational responses to poor economic conditions have the potential to eliminate many middle and upper management positions and to increase competition for those that remain.

Other individual-level factors also add to the rise in career plateaus. It has been suggested that employees are less committed to their jobs, now, than they had been in previous generations (Near, 1980). In addition, employees may be less willing to work longer hours, and more reluctant to make the sacrifices that are necessary to earn promotions (Near, 1980). Employees may also be more willing to turn down organizational promotions that are offered to them in order to establish and maintain a more healthy balance between their work and nonwork lives (Leibowitz et al., 1990).

While many of the factors cited above as contributing to the incidence of plateauing may be unique to the United States, it is interesting to note that career plateauing appears in other countries as well. Through anecdotal writings and some empirical research, career plateauing has been identified in Britain (Evans & Gilbert, 1984), Germany (Gerpott & Domsch, 1987), Canada (Burke, 1989; Sisto, 1990; Tremblay et al., 1992), Japan (Masler, 1988), and Australia (Savery, 1989). It is interesting to note how different cultures respond to career plateauing. While Sisto (1990) discusses how Canadian firms are trying to help their employees accept the unavoidable career plateau, Masler (1988) describes how reaching a career plateau in Japanese firms is viewed as a disgrace.

Potential Consequences of Plateauing

Several consequences of career plateauing have been cited by researchers and others who have written about the subject. Near (1980) suggested that plateaued workers may withdraw from their jobs, look for new jobs in other firms, or simply "retire" in their current positions. She also suggested that career plateauing may be a great source of frustration. Plateaued employees may deny reaching career plateaus. In doing so, they often work harder in their present positions for promotions that, in reality, will never come.

Orpen's (1986) research found that plateaued employees exhibited lower job satisfaction than employees who were not plateaued. Burke (1989) reported not only lower levels of job satisfaction in plateaued police officers, but he also detected higher levels of stress, work alienation, and intention to quit.

It has also been proposed that employees who reach career plateaus may become bored and frustrated, and they may experience decreases in enthusiasm, efficiency, and productivity (Rantze & Feller, 1985). Dawson (1983) listed lower productivity, lower morale, higher turnover, frustration, alienation, burnout, and anger as potential consequences of a plateau, and he stressed the need for organizational interventions for plateaued employees.

Recent research in the area of career plateauing has added to this list of negative consequences. This research has empirically correlated perceptions of career plateauing with several negative outcomes. These outcomes include lower job satisfaction (Chao, 1990; Ettington, 1992; Milliman, 1992a, 1992b; Tremblay, et al., 1992), decreased job involvement (Milliman, 1992a, 1992b), lower job performance (Ettington, 1992; Milliman, 1992a), lower organizational commitment (Ettington, 1992; Milliman, 1992a, 1992b), and a greater propensity to leave the organization (Milliman, 1992a, 1992b; Tremblay et al., 1992).

While most individuals and organizations may perceive career plateauing as a negative event with negative consequences, there is no need to view the plateau in this manner (Ference, Stoner, & Warren, 1977). Individuals and organizations have begun to recognize potential consequences of plateauing that are more positive in nature. It has been suggested

that employees who reach career plateaus may devote more time to participation in leisure or community activities, and others may develop interests and skills that may eventually lead to second careers (Kelly, 1985). Sisto (1990) agrees that career plateauing provides managers with more time, and it thus provides increased opportunities for plateaued individuals to become involved with their families, community activities, and leisure interests.

Suggesting a more dynamic nature of the consequences of plateauing, other researchers have proposed that the consequences of the career plateau may not be an either/or situation. Elsass and Ralston (1989) and Chao (1990) suggest that it may be possible that employees' realization of a career plateau may initially trigger a decreased level of satisfaction or productivity, or an increased level of stress. After the initial realization, employees may develop coping mechanisms to erase the negative consequences. Effective coping mechanisms would help restore satisfaction or productivity that may have been lost when the career plateau was realized.

Elsass and Ralston (1989) suggest several more specific coping mechanisms that employees may develop to combat plateauing. Briefly, these mechanisms are transition, defense, and reappraisal. Transition suggests that employees try to change their position, by transferring to a new one or by retiring. This coping response would remove the employee from the present situation and would thus eliminate the plateau. Defense mechanisms tend to be more negative, as employees try to alleviate their stress by denying the plateau, accepting it passively, or turning to drugs or alcohol. These mechanisms may not be very effective in the long term, because employees who cope with defensive strategies do not change their plateaued state, they simply try to alleviate the discomfort caused by the plateau. The third mechanism, reappraisal, is a cognitive mechanism that allows employees to change the meaning of the career plateau within their own minds. Reappraisal would allow employees to redirect their efforts into community or leisure activities, or would allow them to use cognitive reaffirmation to conclude that they may actually prefer the additional time with their families instead of the longer hours and increased responsibilities associated with further promotion.

Theoretical Developments of the Construct of Career Plateauing

Exploration of the career plateau began nearly twenty years ago with the publication of Stoner et al.'s (1974) work. Ference et al. (1977) were among the first to report on the career plateau in an academic journal. The model developed by these researchers viewed plateauing along two dimensions: managerial assessment of the likelihood of an employee's future promotion (rated high or low) and the employee's current performance (also rated high or low) (see Figure 1). When these two dimensions were laid out along horizontal and vertical axes, the model identified four different types of employees: solid citizens, deadwood, stars, and comers (learners). Within this model, the solid citizen and the deadwood were the groups of plateaued employees. While both groups have a low likelihood of future promotion, only the solid citizens demonstrated good performance.

Ference et al. (1977) make a further distinction within the group of solid citizens. Within this high-performing group, there are individuals who are organizationally plateaued and those who are personally plateaued. As explained by these researchers, a career plateau may occur for many different reasons. Employees who are organizationally plateaued have the ability to do well in higher level jobs but are not promoted due to a lack of job openings. Although there are other sources of the organizational plateau, organizational plateauing usually occurs due to the pyramidal structure of organizations. Employees who are personally plateaued lack the desire to be promoted to a higher level job, or they lack the ability to perform well in a higher level job. Personally plateaued employees are not likely to be promoted even if job openings exist.

Bardwick (1986) developed a similar taxonomy of plateaued employees. She outlined three different types of plateaued workers, those who are structurally plateaued, content plateaued, and life plateaued. Individuals who experience a structural plateau are those who will no longer receive promotions within their organization. The content plateau occurs when employees learn their jobs very well, and they become bored. These employees are no longer challenged by their work. Individuals who are life plateaued not only reach the end of

Current Performance	Likelihood of Future Promotion	
	Low	High
High	Solid Citizens (effective Plateauees) Organizationally Plateaued Personally Plateaued	Stars
Low	Deadwood (ineffective plateauees)	Learners (comers)

Figure 1. Ference, Stoner, and Warren's (1977, p. 603) Model of Managerial Careers.

hierarchical promotion or increased responsibility on the job, but also feel trapped within their world outside of work. Individuals are particularly susceptible to the life plateau when their jobs are the most important aspects of their lives.

Further theoretical developments in career plateauing have occurred with the publications of Feldman and Weitz (1988), Elsass and Ralston (1989), Chao (1990), and Milliman (1992a). Feldman and Weitz (1988) proposed that the definition of the career plateau be changed to reflect an emphasis on increased job responsibility instead of the previous emphasis on job promotion. Using this new concept, an individual would be plateaued if the likelihood of receiving an assignment of increased responsibility was low, regardless of the individual's change in hierarchical level. Feldman and Weitz (1988) suggest that a career plateau, where an individual does not receive assignments of greater responsibility, could be functional in that it would allow the individual opportunities to master his or her current assignments, maintain a stable personal life, or prepare for his or her next transition period.

In addition to their contribution to the definition of the career plateau, Feldman and Weitz (1988) presented a new taxonomy of career plateaus (see Figure 2). Their taxonomy outlined six potential sources of the career plateau and the differential impact of these sources on job performance and job attitudes. They also proposed different managerial interventions that should be appropriate for each type of plateau. The taxonomy developed by Feldman and Weitz (1988) is noteworthy, as it suggests a more specific approach for examining the antecedents and consequences of the career plateau than the framework provided by Ference and his colleagues (Ference et al., 1977; Stoner et al., 1974).

Elsass and Ralston (1989) address the career plateau from another angle. They developed a model to explain how individual and organizational factors may moderate an individual's reaction to the career plateau, including the employee's choice of coping mechanism for dealing with the plateau (see Figure 3). Within their model, Elsass and Ralston (1989) explain that employees recognize the career plateau over time. Furthermore,

Source of Career Plateaus	Impact on Performance and Attitudes	Managerial Interventions
I. Individual Skills and Abilities		
Selection system deficiencies	Poor performance	Redesign selection system
Lack of training	Poor job attitudes	Improved training
Inaccurate perceptions of feedback		Improved performance appraisal and feedback systems
II. Individual Needs and Values		
Low growth need strength	Solid performance	Continue to reward, contingent
Career anchors of security and autonomy	Good job attitudes	on no downturn in performance
Self-imposed constraints		Career information systems
III. Lack of Intrinsic Motivation		
Lack of skill variety	Minimally acceptable job performance	Combining tasks
Low task identity	Declining job attitudes	Forming natural work units
Low task significance		Establishing client relationships
		Vertical loading
		Opening feedback channels
IV. Lack of Extrinsic Rewards		
Small raises, few promotions	Poor performance	Redesign of compensation system
Inequities in reward systems	Poor job attitudes	Redesign of promotion policies
Uncontingent rewards		
V. Stress and Burnout		
Interpersonal relationships on job	Poor performance	Job rotation
Organizational climate	Poor job attitudes	Preventive stress management
Role Conflict		Sabbaticals, off-site training
VI. Slow Organizational Growth		
External business conditions	Continued good performance in short-run	Provide "stars" with increased resources
"Defender" corporate strategy	Declining job attitudes	Provide poorer performers with incentives to leave or retire
Inaccurate personnel forecasts		

Figure 2. Feldman and Weitz's (1988, p.71) Taxonomy of Career Plateaus.

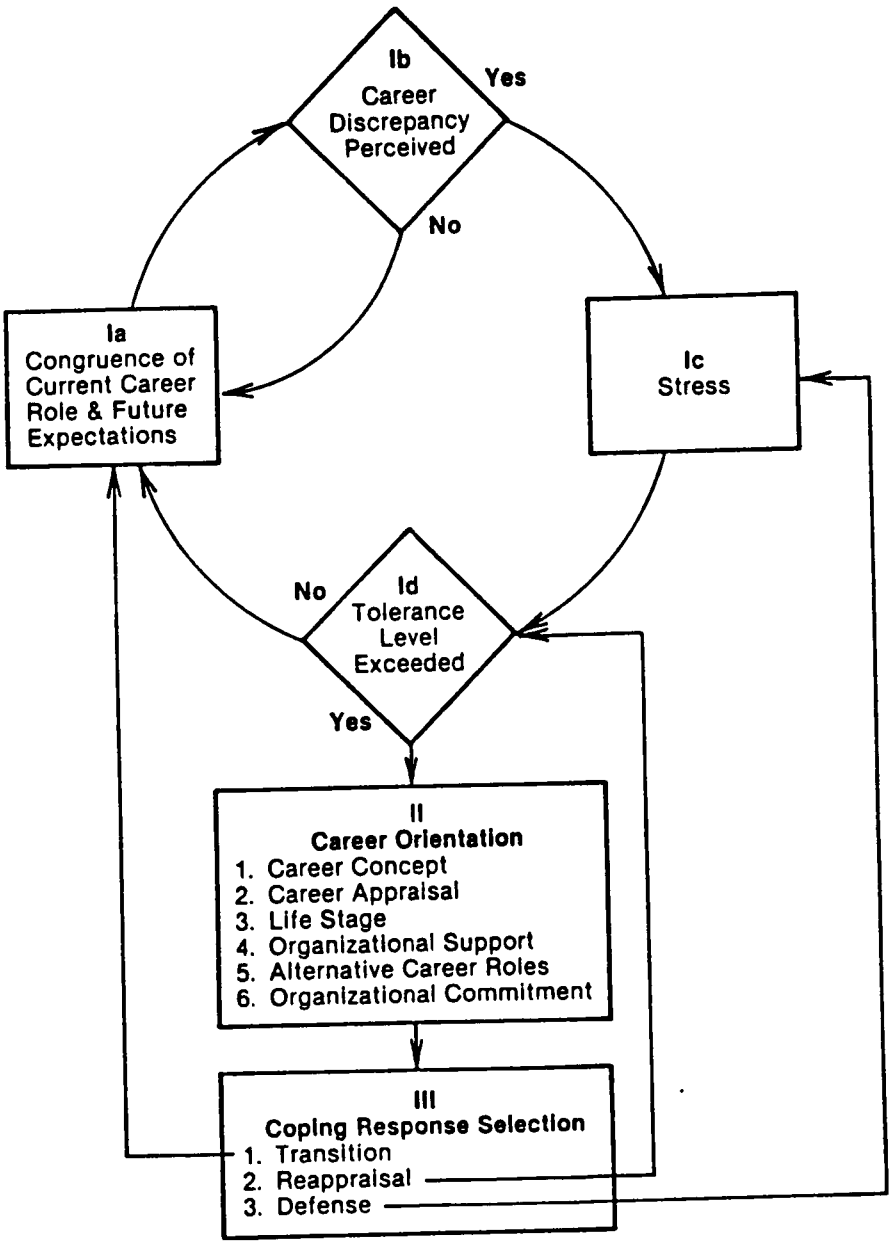


Figure 3. Elsass and Ralston's (1989, p. 39) Model of the Career Plateau Stress Cycle.

they suggest that an employee will experience stress from the career plateau only to the extent that he or she perceives a discrepancy between his or her present occupational position and where he or she would like to be on the career ladder. When a threshold level is reached, the individual will chose a coping mechanism to combat that stress. Elsass and Ralston (1989) propose a number of individual and organizational factors that may moderate the relationship between perceived stress and choice of coping response. These moderators are career concept, career appraisal, life stage, organizational support, alternative career roles, and organizational commitment. While the model developed by Elsass and Ralston (1989) is untested, it suggests that not all employees will perceive a career plateau at the same time, and not all employees will respond to the career plateau in the same manner.

Chao's (1990) research advanced the definition of the career plateau even further. She emphasized the importance of the individual's perception in the realization of being plateaued. Chao (1990) argued that an individual's own belief about his or her being plateaued is more important than whether an organization perceives an individual as plateaued. She explained that the employee's own perception is important because it is his or her own beliefs that will affect his or her subsequent attitudes and behaviors. The most recent research in the area of career plateauing has continued to incorporate this subjective view of plateauing (Ettington, 1992; Milliman, 1992a, 1992b; Tremblay, et al., 1992).

In addition to supporting a perceptual measure of plateauing, Chao (1990) recommended the use of a continuum to measure career plateauing. Previous research has treated the career plateau as a dichotomy; an individual is called either "plateaued" or "nonplateaued," with no concern for those individuals who may feel "slightly plateaued." Chao (1990) advocated a continuous measure because it more successfully captures an individual's estimate of the probability of his or her future promotion. That estimation probably falls, as Chao (1990) explained, somewhere between zero (I will definitely not be promoted) and one (I will definitely be promoted). Therefore, Chao (1990, p. 183) recommends a measurement of "plateauness" by measuring the occurrence of career plateauing

along a continuum. Intuitively, it makes sense to suggest that an individual's job attitudes and job behaviors may vary according to his or her perception of how "plateaued" he or she feels (strength). Again, the most recent research in the field has followed Chao's lead by assessing "degrees of plateauing" in place of the plateaued/nonplateaued dichotomy.

Milliman (1992a) has taken the conceptualization of career plateauing to another level. Milliman (1992a) agrees that the employee's perception of having reached a plateau within his or her current organization is important, as is the measurement of plateauing along a continuum. In addition to plateauing within the current organization, however, Milliman (1992a) suggests that plateauing might also be considered in terms of job content and plateauing in other companies as well. This expansion of the plateauing construct is intuitively appealing. Plateauing is operationalized in terms of hierarchical level in the current organization, job content, and the perceptions of an individual to "get ahead" in some other organization (Milliman, 1992a).

Empirical Research

Empirical research has examined potential differences between plateaued and non-plateaued employees on demographic, work, and nonwork variables (Burke, 1989; Corzine, Buntzman, & Busch, 1988; Evans & Gilbert, 1984; Near, 1983, 1985; Patterson, Sutton, & Schuttenberg, 1987; Savery, 1989; Stout et al., 1988). Only a few studies have tried to examine differences among subgroups of plateaued employees (Slocum et al., 1985; Veiga, 1981). More recently, researchers have operationalized career plateauing in a subjective manner, and they have measured the career plateau along a continuum (Chao, 1990; Ettington, 1992; Milliman, 1992a, 1992b; Tremblay et al., 1992). Individuals' perceptions of plateauing have then been correlated with a variety of work and nonwork outcomes. The latest development in the field has been the exploration of potential mediating or moderating variables of the relationship between career plateauing and work and nonwork attitudes and behaviors (Chao, 1990; Gerpott & Domsch, 1987; Milliman, 1992a, 1992b; Tremblay et al., 1992). Variables receiving attention in this line of research include supervisory behavior and

job characteristics (Gerpott & Domsch, 1987), job tenure (Chao, 1990; Milliman, 1992a, 1992b; Tremblay et al., 1992), supervisor discussion of subordinate's career and promotion aspiration (Milliman, 1992a, 1992b), employee willingness to leave his or her current job for one in another organization or city, career plateauing in other organizations, growth need strength, and job content plateauing (Milliman, 1992a). Specific findings are reported later in the literature review.

The findings from the research conducted in the area of career plateauing are mixed. The inability to draw conclusive results from previous research may be due to a variety of reasons. Factors contributing to this difficulty include the use of different operational definitions of the career plateau, treatment of plateaued employees as if they are a homogeneous group, and a limited consideration of potential moderating variables. In spite of these difficulties, and others, a summary of some of the previous empirical research on career plateauing follows.

Operational Definition. While the classic definition of career plateauing may be somewhat simplistic in light of the more recent theoretical developments, it had been used by previous researchers who have explored the plateau (e.g., Corzine et al., 1988; Near, 1985; Stout et al., 1985). The operationalization of the definition has most frequently been an arbitrary period of time that an employee has spent in his or her present position. Corzine et al. (1988), Savery (1989), Slocum et al. (1985) and Stout et al. (1988) used a period of five years to determine whether an employee had plateaued. Veiga (1981) used seven years, Gerpott and Domsch (1987) used ten, and Burke (1989), sixteen.

Additional objective measures have been used or proposed. Figure 4 lists a number of operational definitions that have been used. Evans and Gilbert (1984) based their operational definition of the career plateau on an individual's age and present position. In their study, plateaued supervisors and assistant managers had to be older than 45 years. Nonplateaued supervisors were younger than 34 years, and nonplateaued assistant managers were younger than 39 years. Evans and Gilbert (1984) used job tenure as a form of construct validity.

OPERATIONAL DEFINITION:	RESEARCHER(S):	OTHER COMMENTS:
Job Tenure		
5 years	Slocum et al., 1985	Used supervisor ratings of individuals' sales volume over the last year to identify high and low performers; Asked supervisors about employees' likelihood of being promoted in the next few years
5 years	Savery, 1989	
7 years	Veiga, 1981	Used above/below average salary increase to identify solid citizens and deadwood
10 years	Gerpott & Domsch, 1987	Nonplateaued individuals had less than 6 years job tenure
16 years	Burke, 1989	
Job Tenure AND Estimation of Likelihood of Promotion		
5 years job tenure and 1 item estimation of likelihood of promotion	Stout et al., 1988	Confirmed with sales managers that further promotion is unlikely if salesperson has not been promoted in 5 years
5 years job tenure and 1 item estimation of likelihood of promotion	Corzine et al., 1988	
Job Tenure AND Relative Occupancy Time		
7 years job tenure AND current tenure is greater than the average tenure of those who have previously held same position	Orpen, 1986	Nonplateaued individuals had less than 3 years job tenure AND their current tenure was less than the average tenure of people who held position before them
Age and Position		
45 years or older as an assistant manager or supervisor	Evans & Gilbert, 1984	Nonplateaued individuals were less than 39 years old as assistant managers; less than 34 years old as supervisors

Figure 4. Operational Definitions of Career Plateauing.

Figure 4. (continued)

OPERATIONAL DEFINITION:	RESEARCHER(S):	OTHER COMMENTS:
<u>Perceptual Measure: Estimation of Promotion Within a Given Time</u>		
Estimation of the likelihood of promotion (high or low) by employee and supervisor	Carnazza et al., 1981	
Estimation of promotion within own institution in 2 to 3 years ("promotion potential")	Patterson et al., 1987	A second item measured "transfer potential" and asked about individual's estimation of getting a better position outside of the organization in 2 to 3 years.
Estimation of promotion within 20 years	Near, 1983, 1985	1 item
<u>Multiple-Item Perceptual Measures</u>		
2 items related to promotion opportunities and career future	Chao, 1990	Alpha = .71; 5 point rating scale Job tenure information also collected
3 items related to individual's perception of the likelihood of promotion	Ettington, 1992	Alpha = .90; 7 point rating scale Job tenure (time since last promotion) information also collected; Performance data gathered from employee, supervisor, subordinate, and peer
6 items related to promotion opportunities within current organization	Milliman, 1992	Alpha = .90; 7 point rating scale Job tenure information also collected
2 items related to career future and perception about whether time in present position has been "too long"	Tremblay, et al., 1992	Alpha = .62; 3 point rating scale Job tenure information also collected

When examining their data, they found that those individuals identified as plateaued using the above criteria had significantly greater job tenure than those who were nonplateaued.

In their theoretical article on plateauing, Feldman and Weitz (1988) suggest that an individual's increase in responsibility could be measured by examining the size of their budget, the number of employees supervised, or the level of assets they managed. While this measure has not been implemented, it is objective in nature, and might be successful in identifying employees who have plateaued or not plateaued based on the responsibility assigned to them.

Some measures began to move away from those that are completely objective. In addition to a job tenure measure, Corzine et al. (1988) asked individuals in their study if they thought they would be promoted. Employees were considered plateaued if they had five or more years in their present jobs and if they did not expect to be promoted within five years. Subjects did not have to satisfy both criteria to be considered plateaued, however, as separate analyses were conducted for each measure of plateauing.

Near (1983, 1985) used a one item measure of the employee's estimation of whether he or she would receive a promotion in the next twenty years in order to identify plateaued employees. Patterson et al. (1987) used two items. The first item was designed to measure promotion potential and asked employees how likely it would be for them to be promoted or given a more desirable position within their own institution within two or three years. The second item was designed to measure transfer potential and asked employees how likely it would be for them to receive a desirable position outside of their institution in the next two or three years.

Stout et al. (1988) used two additional measures to validate the use of their five-year job tenure measure of plateauing. These researchers asked their subjects if they were likely to be promoted within the next five years. The plateaued employees scored significantly lower than those categorized as nonplateaued, supporting the validity of the measure. The region and district managers were also asked about the promotion patterns within the sales industry. Stout et al. (1988) received further support for their five-year measure with the confirmation

that an employee who is not promoted within five years would be unlikely to obtain additional promotions.

A few researchers subdivided their plateaued subjects into the categories described by Ference et al. (1977). For example, in addition to his measure of job tenure, Veiga (1981) used salary increase to distinguish between solid citizens and deadwood. More specifically, if an individual received an above average salary increase, he or she was considered a solid citizen. A below average salary increase identified the employee as deadwood. Slocum et al. (1985) also subdivided their sample. They divided their sample of salespeople into all four of Ference et al.'s (1977) categories of deadwood, solid citizens, stars and comers. In addition to using an objective measure to indicate plateauing (tenure), they used supervisor's rating of performance to distinguish between high and low performers. More specifically, supervisors were asked to report the individuals' actual sales volume over the last one year. Supervisors were also asked to estimate the likelihood of employees' promotion in the near future in order to validate the plateauing measure.

Chao's (1990) measurement of the career plateau differs from the others because her measurement is perceptual in nature and also measures plateauing along a continuum. Chao used two items to assess "plateauness." The first item asked employees whether they felt that their promotion opportunities had been limited in their organization. The second item asked employees if they thought they were getting ahead in their organization. Unlike previous measurements of the plateau, Chao (1990) was also able to assess the coefficient alpha reliability of the measure and reported it as .71.

Ettington (1992), Milliman (1992a, 1992b), and Tremblay et al. (1992) all followed Chao's example by using their own perceptual measures of plateauing. The scales developed by these researchers vary in length, but all assess an individual's perception of promotion opportunities within their organization and/or their career future. Ettington (1992) used three items to assess employee perception of the likelihood of future promotion and reported the coefficient alpha reliability of her measure to be .90. Milliman (1992a, 1992b) reported the

coefficient alpha reliability of his six-item scale to be .90. The two items used by Tremblay et al. (1992) were not created by the authors, but were part of another survey designed for a larger study of human resource management. This might explain their relatively low coefficient alpha reliability of .62. Each of these measures of plateauing was able to account for more variance in the outcome measures than job tenure, alone. The continued use of reliable perceptual measures of career plateauing should thus benefit future research in this area.

Measurement Issues: Self versus Organizational Assessment. The original model of career plateauing was meant to assess an employee's likelihood of promotion from the organization's point of view. More recent research, however, has made the assumption that the individual's perception is more important in the identification of a career plateau and the exploration of its correlates (Chao, 1990; Ettington, 1992; Milliman, 1992a, 1992b; Tremblay et al., 1992). These researchers suggest that individual assessment of having reached a plateau should be more strongly related to individual job attitudes and behaviors.

Carnazza et al. (1981) asked both employees and their managers to estimate whether promotion of the employee was likely or not. They found that only 50% of their matched sample agreed about the subordinates' likelihood of future promotion. The other 50% of employees either overestimated or underestimated the likelihood of being promoted when compared to their supervisors' estimates. The first hypothesis examined by the researchers investigated whether the source (self or organizational) used to estimate an individual's likelihood of promotion mattered. Essentially, the source of assessment was not a significant factor for determining differences among plateaued and nonplateaued employees. In spite of the low level of agreement (50%), the results obtained using the self ratings were similar to those collected from the organizational ratings.

As illustrated by Carnazza et al.'s (1981) study, organizational estimates of an individual's likelihood of promotion may not provide researchers with adequate validation of the individual's assessment of his or her likelihood of promotion. While the issue of

congruence is an interesting research question in itself, the attempt to "validate" self-assessments of plateauing with organizational assessments may not be successful at this time. In this case, for example, the measures were in agreement only 50% of the time. Researchers have used alternate measures to help validate self-assessment of career plateauing, including measures of job tenure and inquiry into the typical career path (e.g., average time that a mobile individual may spend per position) followed by individuals within a given industry (Evans & Gilbert, 1984; Stout et al., 1988).

Measurement Issues: Perceptual versus Traditional Measures. Studies that have utilized both objective and subjective measures of the career plateau have used hierarchical regression analyses to assess the adequacy of each measure in accounting for variance in outcome measures (Chao, 1990; Milliman, 1992a, 1992b; Tremblay, et al., 1992). These researchers concur that the perceptual measures are superior to the traditional, objective measures used in plateauing research.

Chao's (1990) research examined career plateauing and its relationship to intrinsic job satisfaction, extrinsic job satisfaction, career planning, and company identification. Using hierarchical regression analyses, age and tenure accounted for less than 5% of the variance in these outcome measures. When the subjective measurement of career plateauing was entered into all four of the equations, it significantly increased the amount of variance accounted for ($p<.01$). The increases ranged from 10.4% for career planning to 36.9% for extrinsic job satisfaction.

Milliman's (1992a, 1992b) studies provided similar results. The outcome variables under investigation included job involvement, organization commitment, performance, intention to quit, number of hours worked per week, promotion aspiration, and five facets of job satisfaction (satisfaction with pay, promotion, company, supervisor, and job). Hierarchical regression analyses were performed with company identification, age, sex, performance, and race entered into the equation first. The addition of job tenure accounted for a significant portion of variance only for promotion satisfaction ($p<.01$). The subsequent addition of the

perceptual measure of hierarchical career plateauing accounted for significant amounts of variance in each of the outcome measures. Nine of these measures had a significance level of $p<.001$. Milliman's (1992a, 1992b) research thus contributed strong support to the use of a perceptual measure of career plateauing in the current organization over the traditional measure of job tenure.

Additional support for the use of a perceptual measure comes from Tremblay et al. (1992). The outcome variables investigated in this study included seven facets of job satisfaction (general satisfaction, and satisfaction with career, job itself, salary, supervisor, colleagues, and firm), intention to quit, and perception of instrumentality (belief that good performance was related to promotions). With age, seniority, education level, organizational level, and sex entered into the equation as control variables, the addition of job tenure provided no significant increase of explanatory power. The addition of the subjective measure of career plateauing significantly increased the amount of variance accounted for in all nine of the dependent variables. The increases ranged from 3.2% for satisfaction with colleagues to 17.6% for satisfaction with the work itself. The results of this study combined with the findings of Chao (1990) and Milliman (1992a, 1992b) support the use of perceptual measures of career plateauing.

Plateaued versus Nonplateaued Employees. Carnazza et al. (1981) compared plateaued and nonplateaued individuals on factors related to job performance (e.g., experiences, opinions, attitudes, and beliefs) and found that these factors varied according to the individual's likelihood of promotion. More specifically, for the plateaued group, performance communication, job quality, and promotion aspiration were related to job performance. Recognition of employee contributions and time in present position were related to job performance for those who were nonplateaued. Further analyses of the data revealed that employees who underestimated their likelihood of promotion when compared with supervisor estimation of the likelihood of promotion were different from those who overestimated their

likelihood of promotion. Underestimators exhibited factors more similar to plateaued employees than those who overestimated their probability of promotion.

While examining plateaued and nonplateaued managers on work and nonwork variables, Near (1983, 1985) found that plateaued employees reported lower levels of aspiration than their nonplateaued counterparts. In addition, plateaued managers were absent more often, reported poorer relationships with their supervisors, and reported poorer health. Plateaued managers were older, less educated, and worked at smaller facilities than the nonplateaued managers. Near's (1983, 1985) results showed no differences between plateaued and nonplateaued managers in terms of job performance, job satisfaction, motivation, or life satisfaction. Using discriminant analysis, Near (1985) was able to correctly classify 90% of nonplateaued managers and 86% of those who were plateaued.

Evans and Gilbert (1984) found no difference between plateaued and nonplateaued managers in present or future need satisfaction. They did find some differences between plateaued and nonplateaued employees in terms of satisfaction with organizational rewards. Plateaued employees were less satisfied than nonplateaued employees in present pay satisfaction, and future satisfaction with pay, benefits, and advancement, although these results could also be accounted for by the age of manager, with older managers reporting lower levels of satisfaction on the above dimensions. Additional findings showed that older employees were more likely to perceive mentoring activities as leading to organizational reward than the younger employees.

Orpen (1986) examined the relationships between task attributes (e.g., skill variety, task identity, task significance, autonomy, and feedback) and employee satisfaction and job performance for plateaued and nonplateaued employees. He found that plateaued employees perceived their jobs to have less autonomy, feedback, skill variety, and task significance than the nonplateaued group. The plateaued group also reported lower job satisfaction, and they received lower performance ratings from their supervisors than their nonplateaued counterparts. Further analyses revealed that the task attributes were more strongly related to

job satisfaction for the nonplateaued group than for those who were plateaued. In addition, there was a greater correlation between the motivation potential scores and job satisfaction for the nonplateaued group than for those who were plateaued. No significant differences were found for plateaued and nonplateaued employees in age, educational level, company tenure, and functional area.

Gerpott and Domsch (1987) examined plateaued and nonplateaued employees in eleven German companies. Their results suggest that job attitudes and behaviors tend to be more negative for plateaued employees than for those who were not plateaued. More specifically, plateaued employees demonstrated lower levels of career satisfaction, work satisfaction, work involvement, fewer number of hours worked, and fewer publications and patents than their nonplateaued counterparts. In addition, plateaued employees reported that they received less feedback, support, and attention from their supervisors than those who were not plateaued. Plateaued and nonplateaued employees did not differ in terms of their self-reported job performance, nor were there any significant differences between employees in the way they perceived certain characteristics of their supervisors. Regarding job characteristics, plateaued employees reported their jobs as having significantly less skill variety, but providing slightly more (although non-significant) feedback.

In an examination of college faculty, Patterson et al. (1987) found that full professors perceived themselves as having less career mobility both within their current institution and looking outside of their present institution than did assistant or associate professors. The full professors did not differ from the assistant and associate professors in terms of their productivity or career satisfaction. Additional findings revealed that nontenured faculty rated their likelihood of promotion and their likelihood of obtaining a position outside their institution higher than tenured faculty.

Corzine et al. (1988) examined the concept of machiavellianism and its relationship to career plateauing. The results of their study, however, were non-significant, suggesting that machiavellianism is not related to career plateauing. More specifically, managers who rated

high on machiavellianism were not plateaued more often than their low machiavellianism counterparts, nor did they expect to be promoted more often than those scoring low on the construct.

Savery (1989) reported on the differences between plateaued and nonplateaued government workers in Western Australia. Results indicated that the plateaued group was older than the nonplateaued group, and the plateaued group also had greater organizational tenure. The individuals identified as career plateaued were aware that they would not receive further promotion, but this knowledge did not worry them. The plateaued workers had a significantly lower desire for promotion as a motivating factor, they reported being overworked more often, they perceived less job security, and reported greater health concerns than did their nonplateaued counterparts. The feelings of overwork and perceived job insecurity worried the plateaued employees. There was no difference between plateaued and nonplateaued employees in terms of job satisfaction. Savery (1989) suggested that the feelings of physical illness reported by plateaued employees might lead to the negative consequences of decreased productivity, increased absenteeism and tardiness, and decreased motivation.

Burke (1989) compared police officers who were plateaued to those who were nonplateaued on career orientation, work experiences, satisfaction, psychological well-being, life style, and physical health. He reports significant differences between plateaued and nonplateaued officers in current career orientations. In addition, those officers who were plateaued reported greater nonwork orientations than those who were not plateaued. Plateaued officers also reported more negative work settings, greater stress, greater work alienation, less job satisfaction, and greater intention to leave the organization than those officers who were not plateaued. There were no significant differences between plateaued and nonplateaued officers on measures of psychological well-being and physical health.

Longitudinal Study of Plateaued versus Nonplateaued. Stout et al. (1988) conducted a longitudinal study to investigate changes in career intentions, organizational commitment, and job performance in three groups of employees. One group in their three year experiment was

nonplateaued throughout the study. These employees reported increased performance, a desire to be promoted, and the employees felt more marketable at the end of the three-year period. A second group was not plateaued at the beginning of the study, but they became plateaued during the three-year study. This group reported a lower desire for promotion after three years than they had at the beginning of the study. They also felt less marketable after they had reached the plateau. The last group was plateaued throughout the study. At the end of the study, this group reported a lower level of organizational commitment, a greater desire to leave the firm, and less concern about other career related issues than they had when the study began. These results suggest that negative consequences may occur in response to career plateauing.

Subgroups of Plateaued Employees versus Nonplateaued Employees. Veiga (1981) compared effectively and ineffectively plateaued employees to employees who were not plateaued. In terms of Ference et al.'s (1977) model, he compared solid citizens and deadwood to individuals who were not plateaued. Results of the study suggested that deadwood showed greater "career impatience" than nonplateaued individuals and that both types of plateaued employees felt less marketable and were less satisfied with their advancement than the nonplateaued group. Results also showed that the deadwood's predecessors occupied positions longer than the predecessors of the nonplateaued group, and that deadwood received less exposure to upper management than those who were nonplateaued.

Slocum et al. (1985) conducted a study that subdivided employees into solid citizens, deadwood, stars, and comers (Ference et al., 1977). The researchers compared the incidence of career plateauing in two types of firms, analyzers and defenders. Results showed that the business strategy adopted by the organization had a significant effect on the incidence of plateauing, with defender firms having a much greater number of plateaued individuals. Business strategy was also significantly related to the performance of the plateaued individual,

with a greater percentage of deadwood (poor performers) identified among those who were plateaued in the defender firm.

Slocum et al. (1985) also examined the job histories, job attitudes, perceived work environments, job satisfactions, career stages, definitions of success, and career attitudes of the four types of employees within each type of firm. In the defender firm, plateaued employees reported greater job tenure, greater levels of satisfaction with their supervisors, greater satisfaction with the work itself, and lower promotion aspiration than those who were not plateaued. Reporting on differences among solid citizens, deadwood, stars, and comers within the defender firm, several significant differences emerged. Briefly, stars and solid citizens reported professional success as being more important than did the deadwood employees. Stars spent less time per position than the deadwood. Stars also reported themselves to be in the establishment stage of their careers, whereas the deadwood tended to be in the maintenance stage. Stars indicated a lack of satisfaction with their supervisors and with the supervisory styles exhibited by these individuals. Significant differences were also found between the comers and those categorized as plateaued. Comers spent less time per position and had fewer job moves than those who were plateaued. Comers were generally not satisfied with their jobs, expressed low job involvement and reported fewer psychological successes from their jobs. Comers tended to be in the establishment stages of their careers. Plateaued employees were less likely to leave their jobs for better ones in other organizations, were less willing to relocate, and they reported lower promotion aspiration than those who were not plateaued. When plateaued employees did report a desire for promotion, they were willing to accept the promotion after a longer time frame than those who were not plateaued.

In the analyzer firm, Slocum et al. (1985) report plateaued employees to be older and to have greater job tenure than those who were not plateaued. The solid citizens were the oldest subgroup of employees, and they reported the longest job tenure. Further examination revealed that comers demonstrated lower job involvement and lower visibility and influence with their superiors. As in the defender firm, plateaued employees were less likely to leave

their organization for better jobs and they were less likely to relocate than their nonplateaued counterparts. In addition, the plateaued employees reported lower promotion aspiration and a greater time frame for promotion than did those employees who were not plateaued.

Comparisons of Employees Using Continuous Plateauing Measures. With the advent of perceptual measures of career plateauing (Chao, 1990), comparisons between plateaued and nonplateaued employees have become less appropriate. Absolute values cannot be set along the continuum to distinguish between those employees who are plateaued and those who are not. Therefore, comparisons among employees are made based on the strength or degree of plateauing that employees perceive, as it is reported by the subjective measure of the construct.

Chao (1990) studied career plateauing and its relation to intrinsic and extrinsic job satisfaction, career planning, and company identification. Her results indicate negative relationships between career plateauing and these outcome variables. More specifically, employees perceiving themselves to be more plateaued tended to report lower levels of intrinsic and extrinsic job satisfaction, career planning (e.g., career objectives, plans, and strategies), and company identification.

Ettington (1992) examined career plateauing, its relation to employee motivation, satisfaction, organizational commitment, and life satisfaction, and whether it is better for plateaued employees to "face the facts" of reaching a career plateau or to remain more optimistic about future opportunities for promotion. Her results reveal negative relationships between the perception of the career plateau and job performance, motivation, co-worker satisfaction, promotion satisfaction, overall job satisfaction, organizational commitment, and life satisfaction. No significant differences were reported for supervisor and pay satisfaction, and satisfaction with the work itself.

Ettington (1992) also examined congruence between perceptual and objective measures of career plateauing. In order to compare these measures, she divided her subjective and objective scales into three arbitrary divisions. Individuals scoring lower than 3.5 on the seven-

point subjective scale were considered nonplateaued. Those scoring above a 4.5 on the scale were considered to be plateaued. Individuals scoring between 3.5 and 4.5 made up the "unsure" group. The objective measure, time since last promotion, was also divided into three groups. Ettington (1992) reported two natural breaks in her data, one at five years and the other at twelve. Individuals with less than five years job tenure formed the nonplateaued group. Employees with greater than twelve years were late plateaued, and those between five years and twelve years were early plateaued. Ettington (1992) divided the resulting intersection into five contingency groups: congruent nonplateaued, congruent plateaued, overestimators, underestimators, and unsure (see Figure 5). These groups were based on the congruence between individual perceptions of the likelihood of further promotion ("subjective" plateauing) and organizational perceptions ("objective" plateauing). The objective measure assumed that an individual's likelihood of promotion declines as the time since last promotion increases. When both perspectives were in agreement, Ettington (1992) classified the employees as congruent nonplateaued or congruent plateaued. Overestimation referred to the situation where the employee perceived a greater likelihood of promotion than the time since his or her last promotion indicated. Underestimation described the situation where the employee perceived a lesser likelihood of promotion than the objective measure.

Although not all of the following differences were significant, Ettington (1992) observed the following patterns. The congruent plateaued group tended to demonstrate lower job performance, lower job satisfaction, lower satisfaction with work content, lower satisfaction with promotion, lower satisfaction with co-workers and lower organizational commitment than the other four groups. The overestimators, on the other hand, tended to score higher than the other groups on these measures as well as on life satisfaction.

Additional analyses revealed that underestimators demonstrated slightly higher supervisory- and self-ratings of performance, motivation, promotion satisfaction, and organizational commitment than the congruent plateaued. When compared to the congruent nonplateaued, the underestimators scored lower on these measures. In addition,

<table>
<tr><td colspan="2" rowspan="2"></td><td colspan="3">Subjective Plateaued Status</td></tr>
<tr><td>Not Plateaued</td><td>Unsure</td><td>Plateaued</td></tr>
<tr><td rowspan="3">Objective Plateaued Status</td><td>Not Plateaued</td><td>1</td><td rowspan="2">5</td><td>4</td></tr>
<tr><td>Early Plateaued</td><td rowspan="2">3</td><td rowspan="2">2</td></tr>
<tr><td>Late Plateaued</td></tr>
</table>

1 = Congruent, nonplateaued
2 = Congruent, plateaued
3 = Overestimators
4 = Underestimators
5 = Unsure

Figure 5. Ettington's (1992) Five Congruency Groups.

underestimators' scores on subordinate- and peer-ratings of performance and on all of the satisfaction measures, except for promotion satisfaction, were similar to those who were congruent nonplateaued. Underestimators scored lowest of all on life satisfaction. Overall, the results of Ettington's (1992) study suggest that employees who remained optimistic and believed that promotion was possible, even though in reality it was unlikely, exhibited better job attitudes and job performance than the employees who recognized their career plateau.

The relationships between career plateauing and a number of job attitudes were examined by Milliman (1992a, 1992b). Variables under investigation included organizational commitment, intention to quit, job involvement, performance, number of work hours, promotion aspiration, and several facets of satisfaction (satisfaction with work, pay, promotion, organization, and supervisor). Milliman (1992a, 1992b) reports a significant, negative relationship between his perceptual measure of career plateauing and each of the outcome measures except for intention to quit. As might be expected, a significant, positive relationship was found between the perception of a career plateau and intention to quit.

Tremblay et al. (1992) also studied the relationship between the perception of career plateauing and job attitudes. The variables under study included overall job satisfaction, career satisfaction, satisfaction with the organization, pay satisfaction, supervisor satisfaction, co-worker satisfaction, satisfaction with the work itself, intention to quit, and perceived instrumentality between job performance and career advancement. Significant, negative relationships were reported between career plateauing and these variables except for intention to quit. The findings for intention to quit were consistent with Milliman's (1992a, 1992b) results; intention to quit was positively related to perceptions of career plateauing.

These more recent studies of career plateauing have made use of subjective measures of the plateauing construct. The results have been more consistent than those reported in previous studies in the field. Further replication of these results using additional industries and geographical locations will add to the acceptance and generalizability of these findings.

Examination of Mediating and Moderating Variables. The exploration of potential moderators of the relationships between perceptions of career plateauing and job attitudes and behaviors is crucial to the advancement of career plateauing research. While the investigation of potential moderators is relatively new, it might help to explain some of the conflicting results of previous research. In addition, the exploration of moderating factors may help guide career development practitioners in developing specific interventions for subgroups of plateaued employees.

Gerpott and Domsch (1987) were among the first to examine potential mediating variables between career plateauing and job attitudes and behaviors. These researchers used a job tenure assessment of plateauing in their investigation of whether supervisory behaviors and job characteristics act as mediators in this relationship. Supervisory behaviors and characteristics under investigation included provision of career-related information and feedback, competent leadership, scientific expertise, participation in discussion about career development, influence on career decisions of higher level management, provision of job-related feedback. The job characteristics examined included autonomy, feedback from the job itself, and task variety.

According to Gerpott and Domsch (1987), career plateauing was related to career satisfaction, work involvement, and the number of hours worked both directly, and indirectly, through plateauing's negative impact on supervisory behaviors and job characteristics. These results suggest the possibility of a partial mediation model (James & Brett, 1984). For the relationships between career plateauing and work satisfaction and productivity (measured by the number of publications and patents produced), a complete mediation model received support. That is, the negative relationships between career plateauing and these outcome variables are mediated by reported supervisory behaviors and job characteristics.

Chao (1990) investigated job tenure as a moderator between career plateauing and intrinsic and extrinsic job satisfaction, career planning, and organizational identification. Her results were significant for the job satisfaction measures and for company identification. Chao

(1990, p. 189) explains that lower job satisfaction and lower company identification were correlated with the perception of a career plateau, and "these relationships were stronger and more negative for people who perceive the plateau early in their job tenure."

Tremblay et al. (1992) examined job tenure as a potential moderator between career plateauing and intention to quit. Their results suggest that job tenure may weaken the relationship between the perception of the career plateau and intention to quit. In other words, an individual perceiving a career plateau will be less likely to quit if he or she has greater job tenure. This finding is consistent with Chao's (1990) research.

Milliman (1992a, 1992b) made further progress in the study of moderating variables by including additional moderators in his research. He examined not only job tenure as a potential moderator, but also "supervisor's discussion of the subordinate's career," employee willingness to leave the current position for a job in another organization or city, career plateauing in other organizations (i.e., employee perception of whether he or she could get ahead in other organizations), growth need strength, promotion aspiration, and job content plateauing. His results for job tenure were not consistent with Chao's (1990) and Tremblay et al.'s (1992) research. Job tenure was only slightly significant ($p < .10$) for one of the outcome measures examined in his research (number of work hours).

Supervisor's discussion of employee's career explained a significant amount of variance in organizational commitment, pay satisfaction, promotion satisfaction, and company satisfaction. These results suggest that employees whose supervisors discuss their careers with them exhibited higher organizational commitment, satisfaction with pay, satisfaction with promotion, and satisfaction with the organization.

Willingness to leave current job for another in the same city was significant for organizational commitment, promotion satisfaction, company satisfaction, and promotion aspiration. These results suggest that employees reporting a certain level of plateauing who are more willing to leave their current job, will report more negative organizational commitment, promotion satisfaction, and company satisfaction, and greater desire for

promotion. Willingness to leave current job for another in a different city was significant for job involvement, job satisfaction, and performance. These results are more perplexing, suggesting that employees reporting a certain level of plateauing who are more willing to leave their current job for another in a different city reported higher levels of job involvement and job satisfaction. These individuals also reported lower performance levels, which is more in line with expectations.

Employee perceptions of plateauing in other organizations explained a significant amount of variance in intention to quit, company satisfaction, and number of hours worked. These results suggest that employees who perceive plateauing in other companies are actually less likely to quit and are more satisfied with their own company. Regarding the number of hours worked, employees who perceive themselves to be plateaued in their own organization and also perceive plateauing in other organizations reported working fewer hours than those who felt career plateaued in their company, only.

Growth need strength only explained a significant amount of variance in the number of hours worked. The results suggested that for a given level of career plateauing, the number of work hours increased with higher levels of growth need strength. This variable thus received minimal support as a potential moderating variable.

Promotion aspiration was significant for organizational commitment, promotion satisfaction, intention to quit, company satisfaction, job involvement, and job satisfaction. More specifically, individuals perceiving a career plateau and having higher aspiration for promotion will exhibit lower levels of organizational commitment, promotion satisfaction, company satisfaction, job involvement, and job satisfaction, and greater intention to quit.

Milliman (1992a) investigated job content plateauing as a potential moderator of the relationship between career plateauing and outcome variables. Job content plateauing explained a significant amount of variance for company satisfaction, promotion satisfaction, and promotion aspiration. The results suggested that being both hierarchically and job content plateaued contributed to lower levels of company satisfaction. Not as intuitive, however, the

results also indicated that for a given level of career plateauing, job content plateauing contributed to higher promotion satisfaction and promotion aspiration.

Further research is needed on potential moderating variables. This research may help clarify the relationship of job tenure to career plateauing and job attitudes and behaviors. Replication of previous findings might help validate past research and could contribute to a more comprehensive model of career plateauing. Additional moderators should also be explored. The present study will explore potential moderating variables in an effort to help clarify the complex relationships between perceptions of career plateauing and corresponding job attitudes.

Problems Associated With Previous Research

Conceptual Definition of the Career Plateau. As is evident from the developments cited above, the definition of the career plateau is still evolving. It is difficult to maintain continuity in research and practice when the definition of a construct changes from one study to the next. While most of the previous research has used the definition offered by Stoner et al. (1974), recent contributions by Chao (1990), Elsass and Ralston (1989), Feldman and Weitz (1988), and Milliman (1992a) may be too valuable to ignore. An integrated definition of the career plateau should be established. Ideally, this definition will capture plateauing in terms of hierarchical promotion as well as job content.

Operational Definition of the Career Plateau. As mentioned above, most research has used either an arbitrary number of years in present position to identify a plateaued individual, or the individual's age and/or organizational rank. More recently, research on the career plateau has begun to use multi-item measures of an individual's perception of being plateaued to assess career plateauing (Chao, 1990; Ettington, 1992; Milliman, 1992a, 1992b; Tremblay et al., 1992). Results of these studies support the continued use of these perceptual measures in plateauing research. Replication of these findings could add to the evidence in favor of the perceptual measures.

While research should certainly continue to use perceptual measures of plateauing, this is not meant to suggest that age and tenure information be ignored. On the contrary, further exploration of job tenure as a moderator between the perception of the career plateau and certain outcome variable is warranted to help clarify conflicting results (Chao, 1990; Milliman, 1992a, 1992b; Tremblay et al., 1992).

Dichotomy. Traditionally, researchers have classified employees as plateaued or nonplateaued. This dichotomous classification ignores individuals who may feel "slightly plateaued," and those who feel like they have a "slight chance" or a "fairly good chance" of being promoted within a given number of years. Chao's (1990) research advocated the use of a continuum to identify different levels of career plateauing, regardless of whether the plateau was assessed objectively or subjectively. For example, objective measures of plateauing (e.g., job tenure, age) may be viewed along a continuum instead of arbitrarily choosing a value to distinguish between plateaued and nonplateaued employees. The perceptual measures that have been developed are also continuous in nature. They allow respondents to indicate the extent to which they feel plateaued on a five- or seven-point Likert scale.

Chao (1990) argued that work and nonwork outcomes of individuals who feel only slightly plateaued may differ greatly from employees who feel very plateaued. For example, an individual who perceives him or herself as slightly plateaued might be more motivated to work overtime on a project to impress his or her boss than an individual who believes that he or she has no chance of being promoted. Whether a plateau is measured objectively or subjectively, it is easily imagined how some individuals may perceive themselves as more plateaued than others. These perceptions of various degrees of plateauing might differentially impact employee reaction to the plateau. The measurement of the career plateau along a continuum should thus be continued in future research.

Lack of Empirical Assessment of Within Group Differences. Plateaued employees have generally been treated as a homogeneous group. Researchers who used dichotomous classifications of plateaued and nonplateaued employees tended to compare plateaued

employees to those who were not plateaued on a variety of outcome measures. The current trend, however, is to assess plateauing along a continuum. This change in methodology allows researchers to examine potential differences among employees who perceive different degrees of plateauing. Results may uncover attitudinal and/or behavioral patterns among individuals based on the degree to which they perceive a career plateau.

Before this change in methodology, only a few researchers had tried to move beyond the dichotomy to make finer distinctions among plateaued employees. As was previously mentioned, these researchers used Ference et al.'s (1977) framework to examine differences among solid citizens, deadwood, and employees who had not reached a career plateau (Slocum et al., 1985; Veiga, 1981). The investigation of these subgroups of plateaued employees was justified because work and nonwork attitudes were expected to vary between these groups. The identification of more specific attitudinal and behavioral reactions to career plateauing may help tailor career development efforts to the specific needs of employees.

Homogeneity of Subjects. With a few exceptions, most of the previous research in the area of career plateauing has focused on samples consisting primarily of white men. This shortcoming may be due to the demographic characteristics of the industries that have been tapped for research or due to the relatively recent entrance of women and minorities into the management positions typically selected for research participation.

Nevertheless, some researchers have tried to include more women and/or minorities in their samples (Milliman, 1992a, 1992b). This may be done by focusing on industries in which women and minorities are more prevalent. It is also important to include employees at various levels of the organization. While previous research has focused primarily on managerial populations, it is possible that employees at all levels of organizations may perceive hierarchical and/or job content career plateaus. Career development professionals may be more prepared to deal with plateaued employees if researchers include a number of women and/or minorities in their studies and also involve employees at different levels of the organization.

Purpose of the Present Study

The purpose of the present study is to extend previous research on career plateauing. More specifically, this study will examine correlates of career plateauing, and it will explore moderators of the relationship between career plateauing and outcome variables. This research will conceptualize the career plateau not only in terms of hierarchical promotion, but it will also consider career plateauing in terms of job content.

The career plateau will be operationalized using previously constructed perceptual measures for which reliability information is already available (Milliman, 1992a). The use of these scales should help ensure the reliable assessment of the career plateau. Replication of the high ratings of internal consistency of the scales will contribute to the development of a standard for the measurement of the plateauing construct. Job tenure information will also be collected. Each of these measurements will be assessed along a continuum, without classifying individuals into a dichotomy of plateaued and nonplateaued. Relationships between employee perceptions of both hierarchical and job content career plateauing and a number of work attitudes will be examined.

This research will also explore potential moderators of the relationship between career plateauing and the outcome variables under investigation. The investigation of moderators is a more recent development in plateauing research. The present study will examine potential moderating variables studied by other researchers (e.g., job tenure, promotion aspiration, job content plateau) and will also include others that are under investigation for the first time (e.g., life satisfaction, participation in employee development opportunities, age, and alternative job opportunities).

Hypothesis Development

Research on career plateauing has examined a number of demographic, attitudinal, and behavioral variables. Many of these variables are commonly encountered in research conducted in the fields of industrial and organizational psychology and organizational behavior. The most recent research on career plateauing suggests that employee perception of

a career plateau is negatively related to a number of these variables. More specifically, plateauing may be related to various facets of job satisfaction (Chao, 1990; Ettington, 1992; Milliman, 1992a, 1992b; Tremblay et al., 1992), career planning (Chao, 1990), company identification (Chao, 1990), employee motivation (Ettington, 1992), organizational commitment (Ettington, 1992; Milliman, 1992a, 1992b), life satisfaction (Ettington, 1992), intention to quit (Milliman, 1992a, 1992b; Tremblay et al., 1992), job involvement (Milliman, 1992a, 1992b), number of hours worked per week (Gerpott & Domsch, 1987; Milliman, 1992a, 1992b), and perceived instrumentality between job performance and career advancement (Tremblay et al., 1992).

The current research will focus on several demographic and attitudinal variables. These variables include age and education level, job-related health concerns, several facets of job satisfaction (overall, social reward satisfaction, intrinsic reward satisfaction, pay satisfaction, and promotion satisfaction), organizational commitment, intention to quit, and the number of hours worked per week. A framework is presented in Figure 6 to help clarify possible relationships among these variables. This framework is meant to identify potential antecedents and outcomes of perceived career plateauing. Variables included in the present study are presented in bold type.

Potential Antecedents of Career Plateauing

Demographic Factors. A number of demographic variables have been included in plateauing research. Near (1983, 1985) included age, education level, and marital status in her investigation of plateauing. She found that plateaued employees tended to be older, less educated, and married, as compared to nonplateaued employees. Savery (1989) found that plateaued employees tended to be older than their nonplateaued counterparts.

Milliman (1992a) included age, education level, race, and gender in his study of plateauing. His findings revealed a moderate relationship between career plateauing and age ($r = .29$). Milliman (1992a) also found some support for relationships between plateauing and education level ($r = -.11$) and plateauing and race ($r = .12$). His results suggested that non-

Figure 6. A Framework for Understanding Factors Related to Perceived Career Plateauing.

Caucasians tended to be report career plateauing more often than Caucasians. Milliman (1992a) found no support for his hypothesis that females would report being plateaued more often than males.

Demographic factors should be included in additional studies of career plateauing to help clarify the relationships of these variables to hierarchical and job content plateauing. These factors may be viewed as antecedents to career plateauing. The present study will include age and educational level.

Age is an important variable because it may be related to plateauing, and it may also serve to moderate the relationship between plateauing and various outcome variables. Since older workers have been found to report greater levels of job satisfaction (Lee & Wilbur, 1985) and organizational commitment (Mathieu & Zajac, 1990), this variable may also serve to moderate the relationships between career plateauing and these job attitudes. More specifically, the positive effects of older age on job attitudes may help alleviate some of the negative effects of plateauing. Age may be positively related to career plateauing because older workers tend to reach a point where they stop being promoted within organizations. Based on previous research, a positive relationship between career plateauing and age is expected (Milliman, 1992a; Near, 1983, 1985; Savery, 1989).

Hypothesis 1a: Age will be positively related to perceptions of both hierarchical and job content career plateauing.

A relationship between employee education level and career plateauing has implications for employees preparing for their careers. It is expected that employees with less education will report greater levels of plateauing (Milliman, 1992a; Near, 1983, 1985). A negative relationship might suggest that employees attain as high a level of education as is possible before beginning their careers, or while they are working, to help prevent plateauing in the future.

Hypothesis 1b: Education level will be negatively related to perceptions of both hierarchical and job content career plateauing.

Potential Outcomes of Career Plateauing

Job Satisfaction. Job satisfaction has been defined as a "positive emotional state resulting from the appraisal of one's job or job experiences" (Locke, 1976, p. 1300). Although job satisfaction may be considered as an overall or global response to the job, specific factors contributing to this affective response have also been identified. Facets of job satisfaction include satisfaction with the work itself, pay, promotion, recognition, benefits, working conditions, supervisors, co-workers, and management (Locke, 1976).

There has been an abundance of research on job satisfaction. Much of this research has tried to determine whether certain work-related variables are correlated with this emotional state. For example, job satisfaction has been linked to withdrawal behaviors, including employee absenteeism (Muchinsky & Tuttle, 1979) and employee turnover (Porter & Steers, 1973). Less satisfied employees tend to exhibit greater levels of absenteeism and turnover than employees who are more satisfied. Job satisfaction also appears to be negatively related to the number of grievances filed and positively related to physical and mental well-being (Locke, 1976).

Previous plateauing research has examined the relationship of career plateauing to overall job satisfaction, intrinsic and extrinsic job satisfaction, and to more specific facets of the construct (e.g., satisfaction with promotion, pay, supervisor, work itself, organization). This research has produced conflicting results. A brief summary of research examining overall job satisfaction, pay satisfaction, and satisfaction with work itself should illustrate the conflict existing in this area.

Overall job satisfaction has been included in studies that dichotomized the measurement of the career plateau (Burke, 1989; Gerpott & Domsch, 1987; Near, 1983, 1985; Orpen, 1986; Savery, 1989) as well as those considering the plateau as a continuous variable (Ettington, 1992). While Burke (1989), Gerpott and Domsch (1987), and Orpen (1986) found plateaued employees reporting lower levels of job satisfaction than nonplateaued employees, Near (1983, 1985) and Savery (1989) found no significant differences between plateaued and

nonplateaued employees on overall job satisfaction. Further, Ettington's (1992) study suggested a negative relationship between the perception of a career plateau and job satisfaction.

Pay satisfaction has been included in four plateauing studies (Ettington, 1992; Evans & Gilbert, 1984; Milliman, 1992a, 1992b; Tremblay et al., 1992). The study dichotomizing subjects as plateaued and nonplateaued reported that plateaued employees were less satisfied with their pay than those who were not plateaued (Evans & Gilbert, 1984). The other three studies used continuous measures of plateauing. While Milliman (1992a, 1992b) and Tremblay et al. (1992) reported a negative relationship between career plateauing and pay satisfaction, Ettington (1992) found no significant relationship between plateauing and pay satisfaction.

Four studies have included satisfaction with work itself as an outcome variable. Slocum et al. (1985) found plateaued employees in their defender firm actually reported greater satisfaction with the work itself than those who were nonplateaued (using a dichotomous measure of plateauing). Milliman (1992a, 1992b) and Tremblay et al. (1992) both reported negative relationships between career plateauing and satisfaction with work. Ettington (1992) reported no significant difference between plateauing and work satisfaction. Her results emphasize the lack of agreement about the relationship between career plateauing and this facet of job satisfaction.

Because of these mixed results, additional research is necessary to help clarify the relationship between plateauing and various facets of job satisfaction. The exploration of specific sources of satisfaction in addition to overall job satisfaction will be useful for discovering the unique relationships of these facets to career plateauing. The present study will examine overall job satisfaction as well as satisfaction with social rewards (co-workers), intrinsic rewards, pay, and promotion.

The relationship between career plateauing and overall job satisfaction and to specific facets of job satisfaction is important to assess. Job satisfaction and its relationship to other

attitudes and behaviors have been studied extensively. It is believed to be related to employee physical and mental health and withdrawal behaviors. The current study will help determine whether career plateauing is related to different levels of job satisfaction. A negative relationship between plateauing and job satisfaction might indicate the need for interventions to alleviate potentially detrimental effects of plateauing.

In spite of the mixed results obtained in previous research, it is predicted that both hierarchical and content career plateauing will be negatively related to overall job satisfaction and various facets of job satisfaction. In other words, stronger perceptions of career plateauing are expected to be correlated with lower levels of overall and facet satisfaction. This hypothesis is consistent with the more recent findings of plateauing research.

Hypothesis 2a: Perceptions of a hierarchical career plateau will be negatively related to facets of job satisfaction.

Hypothesis 2b: Perceptions of a job content career plateau will be negatively related to facets of job satisfaction.

Organizational Commitment. Organizational commitment is the extent to which an individual identifies with his or her organization. It is characterized by a strong belief in and acceptance of an organization's values and goals, a willingness to exert effort to make a contribution to the organization, and a strong desire to remain a part of the organization (Mowday, Steers, & Porter, 1979). Research in the fields of industrial and organizational psychology and organizational behavior has investigated organizational commitment as an antecedent, consequence, and correlate of many personal and organizational characteristics, attitudes, and behaviors.

The presence or absence of organizational commitment may influence the degree to which employees are able to benefit from internal rewards such as intrinsic job satisfaction and improved relations with co-workers, and external rewards such as pay and fringe benefits (Mathieu & Zajac, 1990). Organizations view organizational commitment favorably, as commitment is commonly associated with lower levels of turnover, absenteeism, and tardiness,

and increased levels of employee motivation, innovation, and creativity (Mathieu & Zajac, 1990). Empirically, there is evidence suggesting that organizational commitment is, indeed, negatively related to employee turnover, absenteeism, and tardiness, and stress as well as positively related to internal motivation, job involvement, and job satisfaction (Mathieu & Zajac, 1990).

Organizational commitment has been included as an outcome variable in only a few studies of career plateauing (Ettington, 1992; Milliman, 1992a, 1992b; Stout et al., 1988). The results have been more consistent than for some of the other variables under investigation. Ettington (1992) and Milliman (1992a, 1992b) concur that there is a negative relationship between perceptions of career plateauing and organizational commitment. In other words, individuals feeling more plateaued will exhibit less organizational commitment than those who feel less plateaued. Additional evidence of the relationship between career plateauing and organizational commitment is provided by Stout et al. (1988). In a longitudinal study, these researchers found that employees who were plateaued throughout the three year study reported lower levels of organizational commitment at the end of the study than they had at the beginning.

Because of the previously established relationships of organizational commitment to a number of variables, additional study of organizational commitment and its relation to career plateauing is warranted. Replication of previous results might call for the development of career development interventions to help maintain the organizational commitment of employees who believe they have reached a career plateau. Examination of potential moderators might help identify employees who would be the most likely candidates for this type of intervention.

Based on the results obtained in previous research, it is predicted that hierarchical career plateauing will be negatively related to organizational commitment. It is also hypothesized that the perception of a job content plateau will also be negatively related to organizational commitment. More specifically, as the strength of employee perceptions of

hierarchical and job content career plateauing increase, reported levels of organizational commitment will decrease. This hypothesis is consistent with previous findings of plateauing research.

Hypothesis 3a: Perceptions of a hierarchical career plateau will be negatively related to organizational commitment.

Hypothesis 3b: Perceptions of a job content career plateau will be negatively related to organizational commitment.

Number of Hours Worked per Week. The number of hours worked per week will be examined as another correlate of career plateauing. Intuitively, individuals who feel they have reached a career plateau might withdraw from the job and work fewer hours than individuals who remain hopeful about their chances for attaining future promotions. Similarly, individuals who feel plateaued in terms of job content might work fewer hours than those employees who still perceive increased responsibility and challenge on the job. Gerpott and Domsch (1987) and Milliman (1992a, 1992b) asked employees to estimate the number of hours they worked each week. These studies found support for this relationship, although Milliman's (1992a, 1992b) support was not strong. Further investigation of this variable is certainly warranted.

Hypothesis 4a: Perceptions of a hierarchical career plateau will be negatively related to the number of hours worked per week.

Hypothesis 4b: Perceptions of a job content career plateau will be negatively related to the number of hours worked per week.

Job-related Health Concerns. The relationship between employee health and career plateauing warrants investigation because of the rising cost of health care to organizations and individuals. A positive relationship is expected between a measure of job-induced tension and career plateauing. Such a finding would need to be interpreted with caution, since the causality of this relationship would be uncertain. More specifically, further investigation would need to determine whether plateauing might lead to greater levels of job-induced tension or whether a greater number of job-related health concerns might lead to plateauing.

Near (1983, 1985) included employee health in her investigation of plateauing and

found that plateaued employees tended to report a greater number of health concerns than nonplateaued employees. Burke (1989) found no significant difference between plateaued and nonplateaued employees in terms of health, but did find plateaued employees to report greater levels of stress than their nonplateaued counterparts. Savery (1989) found that plateaued employees tended to report a greater number of physical symptoms than employees who were not plateaued.

Hypothesis 5a: Perceptions of a hierarchical career plateau will be positively related to employee health concerns.

Hypothesis 5b: Perceptions of a job content career plateau will be positively related to employee health concerns.

Intention to Quit. Intention to quit reflects an individual's desire to leave his or her present position. Researchers have reported a significant correlation between employee intentions to turn over and actual turnover behavior (Cotton & Tuttle, 1986; Parasuraman, 1982; Waters & Roach, 1979; Waters, Roach, & Waters, 1976). This relationship could have important implications for individuals who reach career plateaus. Parasuraman (1982) found satisfaction with promotion opportunities to be the largest contributor to behavioral intentions to quit. Considering the lack of promotional opportunities available to plateaued employees, it could be harmful to organizations to neglect employees who plateau if those employees might subsequently decide to leave the organization.

Employee intention to quit has been included in several studies of career plateauing (Burke, 1989; Milliman, 1992a, 1992b; Slocum et al., 1985; Stout et al., 1988; Tremblay et al., 1992; Veiga, 1981). Again, research findings have been mixed. Veiga (1981) found no significant differences between plateaued and nonplateaued employees in their propensity to leave the organization. Slocum et al. (1985) found that plateaued employees in both the analyzer and defender firms actually expressed less desire to leave their organization than employees who were not plateaued. In their longitudinal study, Stout et al. (1988) reported that both the employees who were plateaued throughout the three year study and those who

remained nonplateaued expressed a greater propensity to leave than employees who became plateaued during the study. Burke (1989) found that plateaued police officers reported a greater desire to leave their organization than officers who were not plateaued. Milliman's (1992a, 1992b) and Tremblay et al.'s (1992) research both used a continuous measure of plateauing. Both of these studies reported a positive relationship between the perception of a career plateau and a desire to leave the organization.

Plateauing research should continue to investigate intention to quit as a potential correlate of career plateauing. This research might lend support to the more recent research that suggests that as people plateau, they express a greater propensity to leave their organization. The exploration of potential moderating variables (e.g., promotion aspiration) might also contribute to the understanding of the relationship between plateauing and propensity to leave.

In spite of the mixed results obtained in previous research, it is predicted that the perception of a hierarchical or job content plateau will be positively related to an employee's propensity to leave. More specifically, the stronger the perception of a career plateau, the more likely the employee will be to express a desire to leave the organization.

Hypothesis 6a: Perceptions of a hierarchical career plateau will be positively related to intention to quit.

Hypothesis 6b: Perceptions of a job content career plateau will be positively related to intention to quit.

Plateauing Measures

The present study will compare the perceptual measures of plateauing to the traditional, job tenure measure. Previous researchers (Chao, 1990; Milliman, 1992a, 1992b) have found support for the use of perceptual measures of plateauing. The present study will examine the ability of the hierarchical plateauing measure and the job content plateauing measure to account for variance in the outcome variables. Based on the results of previous

research, both measures are expected to account for more variance in the outcome variables than the traditional measure of job tenure.

Hypothesis 7a: The perceptual measure of hierarchical career plateauing will account for more variance in the outcome measures than the traditional job tenure measure of plateauing.

Hypothesis 7b: The perceptual measure of job content career plateauing will account for more variance in the outcome measures than the traditional job tenure measure of plateauing.

Potential Moderating Variables

The investigation of potential moderating variables between career plateauing and outcome variables is a promising development in plateauing research. Before the exploration of moderating variables, researchers had only investigated work and nonwork correlates of plateauing. Conflicting results obtained in these studies have made it difficult to draw conclusions about the relationships between career plateauing, attitudes, and behaviors. While these mixed results may be partially attributed to conceptual and methodological problems, failure to assess potential moderating variables may have also contributed to these inconclusive findings.

Most plateauing research has divided employees into those who are plateaued and those who are not (Burke, 1989; Carnazza et al., 1981; Corzine et al., 1988; Evans & Gilbert, 1984; Gerpott & Domsch, 1987; Near, 1983, 1985; Orpen, 1986; Patterson et al., 1987; Savery, 1989; Slocum et al., 1985; Stout et al., 1988; Veiga, 1981). With the exception of Gerpott and Domsch (1987), who investigated potential mediating variables, these researchers compared plateaued and nonplateaued employees without taking into account any potential contingency factors. They assumed that all employees would exhibit similar reactions to the plateau. More recently, however, researchers have measured plateauing along a continuum (Chao, 1990; Ettington, 1992; Milliman, 1992a, 1992b; Tremblay et al., 1992). This research has allowed researchers to examine work and nonwork correlates of the career plateau in terms of how plateaued employees perceive themselves to be. This type of measurement recognizes

that plateaued employees may differ in terms of their attitudes and behaviors according to the perceived strength of the plateau.

The examination of variables that may moderate the relationship between plateauing and specified outcome variables recognizes the possibility of other contingencies operating in this relationship. Moderating variables may help explain why some employees respond negatively to the career plateau while others do not. For example, one moderating variable under consideration is job tenure (Chao, 1992; Milliman, 1992a, 1992b; Tremblay et al., 1992). It has been proposed that job tenure may contribute to the relationship between plateauing and job attitudes. More specifically, it is believed that employees perceiving a career plateau who have been on the job for a long time may be more accepting of their inevitable situation and thus demonstrate more positive outcomes to the plateau (Chao, 1990). Employees who perceive a plateau after only a short time on the job may be more frustrated with their lack of career progress and exhibit more negative outcomes.

A limited number of other variables have been studied as potential mediators or moderators of the relationship between plateauing and job outcomes. These include supervisor behaviors (Gerpott & Domsch, 1987; Milliman, 1992a, 1992b), job characteristics (Gerpott & Domsch, 1987), promotion aspiration (Milliman, 1992a, 1992b), employee willingness to leave his or her current job for one in another organization and city (Milliman, 1992a), perceptions of plateauing in other organizations (Milliman, 1992a), growth need strength (Milliman, 1992a), and job content plateauing (Milliman, 1992a). While these variables are worthy of further investigation in order to replicate previous results and to contribute to the development of a theoretical framework for career plateauing, there are other potential moderating variables that must also be considered. The present study will re-examine job tenure, promotion aspiration, and job content plateauing as potential moderating variables, and it will also investigate four additional variables: Life satisfaction, participation in employee development opportunities, perceptions of alternative job opportunities, and age.

Job Tenure. As was previously mentioned, job tenure has been empirically investigated as a moderating variable by Chao (1990), Milliman (1992a, 1992b), and Tremblay et al. (1992). In spite of the intuitive appeal for job tenure to moderate the relationship between plateauing and job attitudes, the results of these studies have been inconsistent. Chao (1990), for example, found job tenure to moderate the relationships between perceived career plateau and intrinsic job satisfaction, extrinsic job satisfaction, and company identification. More specifically, she found that employees perceiving a career plateau had more negative job outcomes when they had shorter job tenure. Tremblay et al. (1992) also found support for job tenure as a moderating variable. These researchers examined whether job tenure moderated the relationship between career plateauing and intention to quit. They found that employees perceiving a career plateau were less likely to quit when they had a greater amount of time invested in the job. Contrary to these results, Milliman (1992a, 1992b) reported that job tenure failed to moderate the relationships between plateauing and the outcome variables under investigation.

Further investigation should help to clarify these conflicting results. If job tenure is found to moderate the relationship between career plateauing and job attitudes, it may be important to keep relatively new employees engaged in new tasks and lateral career moves when hierarchical moves are not feasible. If these alternatives are not available within the organization, other interventions may be developed to offset the negative attitudes related to early plateauing. If job tenure is not found to moderate the relationship between plateauing and job attitudes, it may not be necessary to tailor specific interventions to employees reaching plateaus early in their careers.

Based on the results of Chao (1990) and Tremblay et al. (1992), job tenure is expected to moderate the relationship between the perception of a hierarchical career plateau and outcome variables. The relationship between the perception of a hierarchical career plateau and the outcome variables will be stronger and more negative for people with shorter job tenure as opposed to longer job tenure. More specifically, individuals perceiving a

hierarchical career plateau at shorter job tenure will experience lower levels of job satisfaction and organizational commitment, fewer hours worked per week, a greater propensity to leave, and more health concerns. Similar results are expected for the perception of a job content plateau.

Hypothesis 8a: Job tenure will moderate the relationship between hierarchical career plateauing and outcome variables (facets of job satisfaction, organizational commitment, number of hours worked per week, job related health concerns, intention to quit).

Hypothesis 8b: Job tenure will moderate the relationship between job content career plateauing and outcome variables (facets of job satisfaction, organizational commitment, number of hours worked per week, job related health concerns, intention to quit).

Promotion Aspiration. Milliman (1992a, 1992b) investigated promotion aspiration as a potential moderator of the relationship between career plateauing and a number of outcome variables. The results of his study suggest that promotion aspiration has a negative impact on the relationship between career plateauing and organizational commitment, job involvement, job satisfaction, company satisfaction, and intention to quit. More specifically, individuals with higher aspiration for promotion who perceive a career plateau report lower levels of organizational commitment, job involvement, job satisfaction, company satisfaction, and a greater intention to quit.

Additional investigation should try to replicate these findings. If individuals with higher promotion aspiration tend to react more negatively to career plateauing, these individuals should be candidates for career development interventions designed to help them cope with the reality of plateauing.

Based on Milliman's (1992a, 1992b) results, promotion aspiration is expected to moderate the relationships between perceptions of hierarchical career plateauing and outcome variables. The relationships between perceptions of hierarchical career plateauing and the outcome variables are expected to be stronger and more negative for people with higher levels of promotion aspiration as opposed to lower levels of promotion aspiration. More specifically,

individuals perceiving a hierarchical career plateau and having higher promotion aspiration are expected to report lower levels of job satisfaction and organizational commitment. These employees are also expected to report fewer of hours worked per week, a greater propensity to leave, and more health concerns.

Promotion aspiration is also expected to moderate the relationship between perceptions of job content plateauing and outcome variables. The job content plateau refers to a lack of variety, responsibility, and opportunity to learn new things on the job. An individual perceiving a job content plateau might report lower levels of job satisfaction and organizational commitment, fewer hours worked per week, a greater propensity to leave, and more health concerns if he or she also has a high aspiration for promotion. The employee wanting to move up in the organization may feel trapped in the present situation, and thus exhibit more negative job attitudes.

Hypothesis 9a: Promotion aspiration will moderate the relationship between hierarchical career plateauing and outcome variables (facets of job satisfaction, organizational commitment, number of hours worked per week, job related health concerns, intention to quit).

Hypothesis 9b: Promotion aspiration will moderate the relationship between job content career plateauing and outcome variables (facets of job satisfaction, organizational commitment, number of hours worked per week, job related health concerns, intention to quit).

Life Satisfaction. Life satisfaction describes how happy someone is with his or her life in general. This conceptualization of life satisfaction is global in nature, although specific facets of life satisfaction (e.g., family, leisure, marriage, community, and work) may also be identified and examined (Rice, Near, & Hunt, 1980).

Life satisfaction has often been examined in an effort to determine the relationship between satisfaction on the job and satisfaction with life in general. Rice et al. (1980) describe this relationship as positive in nature, but modest, with correlations ranging from the .20s to .30s. When specific facets of life satisfaction were correlated with job satisfaction, the correlations tended to decrease.

Proposed relationships between job and life satisfaction are best described by three different theories: compensation, generalization (or spillover), and segmentation (Kabanoff, 1980). Briefly, compensation refers to employees making up for in one domain what they may lack in the other. Spillover, on the other hand, suggests that employees carry attitudes and behaviors from one domain to the other. Segmentation refers to the ability of employees to separate their work and nonwork lives. While empirical support for one of these theories over the others is lacking, Kabanoff (1980) suggests that methodological problems have contributed to these inconclusive findings.

Life satisfaction has been included in career plateauing studies by two researchers (Ettington, 1992; Near, 1983, 1985). Both of these researchers examined life satisfaction as a correlate of plateauing. Using a dichotomous measure, Near (1983, 1985) found no significant difference between plateaued and nonplateaued managers on the dimension of life satisfaction. Ettington (1992), using a continuous measure of plateauing, reported a negative relationship between plateauing and life satisfaction. In other words, employees feeling more plateaued reported lower levels of life satisfaction.

While life satisfaction has not received much attention in the plateauing literature, it deserves further investigation. This research will propose, however, that life satisfaction may function as a moderator between plateauing and the other work-related variables of interest. That is, individuals perceiving a career plateau will exhibit greater or lower levels of job satisfaction, organizational commitment, number of hours worked per week, intent to quit, and job-related health concerns, depending on their reported life satisfaction. It is expected that individuals with higher overall life satisfaction will respond more positively to career plateauing than those individuals reporting lower levels of life satisfaction. This relationship would lend support to the spillover hypothesis.

Hypothesis 10a: Life satisfaction will moderate the relationship between hierarchical career plateauing and outcome variables (facets of job satisfaction, organizational commitment, number of hours worked per week, job related health concerns, intention to quit).

Hypothesis 10b: Life satisfaction will moderate the relationship between job content career plateauing and outcome variables (facets of job satisfaction, organizational commitment, number of hours worked per week, job related health concerns, intention to quit).

Participation in Employee Development Opportunities. Organizations often implement a variety of interventions and activities to enhance employee development. Some of these activities may be targeted specifically at managing employee career development (e.g., career counseling, job posting) while others may be more general in nature (e.g., flexible work hours, training, project teams). Programs such as these may influence employee reactions to career plateauing.

The present study will propose that employee participation in development opportunities will moderate the relationship between career plateauing and outcome variables. More specifically, participation in such activities is expected to have a positive effect on the outcome variables. Employees at a career plateau who have participated in developmental activities should report higher levels of job satisfaction and organizational commitment, a greater number of hours worked, a lower propensity to leave, and fewer health concerns. Such a finding might support the creation and maintenance of such developmental programs in companies that anticipate a large number of employees becoming plateaued in the future of the organization.

The following hypotheses are based on different assumptions for employees who are at hierarchical plateaus and those who perceive job content plateaus. Employees at hierarchical plateaus might view employee development activities as opportunities to learn about career options available to them. They might use the activities as opportunities to receive additional training or to learn more about alternate career moves (e.g., lateral or downward transfers) available to them. These activities might thus help alleviate the feelings of being blocked in terms of career progress.

Employees perceiving job content plateaus may view employee development activities as opportunities to learn new skills and prepare for additional responsibilities. While

employees plateaued in terms of job content may participate in similar activities (according to what is available within the organization), their participation in such activities may help alleviate the boredom they perceive on the job.

Hypothesis 11a: Participation in employee development opportunities will moderate the relationship between hierarchical career plateauing and outcome variables (facets of job satisfaction, organizational commitment, number of hours worked per week, job related health concerns, intention to quit).

Hypothesis 11b: Participation in employee development opportunities will moderate the relationship between job content career plateauing and outcome variables (facets of job satisfaction, organizational commitment, number of hours worked per week, job related health concerns, intention to quit).

Alternative Job Opportunities. Operationally defined, "alternative job opportunities" refers to the likelihood of obtaining an acceptable position with another organization (Lee & Mowday, 1987). This variable is nearly identical to operationalization of Veiga's (1981) assessment of perceived marketability. Two plateauing studies have included this variable (Stout et al., 1988; Veiga, 1981) as a correlate of career plateauing. Stout et al. (1988) found that employees who remained nonplateaued throughout the longitudinal study reported greater levels of marketability. Those who became plateaued during the three-year period reported lower levels of marketability. Veiga's (1981) results suggested the plateaued employees felt less marketable than those who were nonplateaued. Both studies agree that plateauing may be negatively related to perceived marketability.

The present study will examine the likelihood of obtaining an acceptable position with another organization as a potential moderating variable. More specifically, for a given level of career plateauing, a greater perceived likelihood of obtaining an alternate job will lead to more negative outcomes regarding satisfaction and organizational commitment, and a greater intention to quit. Lower likelihood of obtaining alternative job opportunities will lead to more positive outcomes and a lower intention to quit. These proposed relationships may be due to cognitive manipulation of the situation. When employees see other opportunities outside of

their organization, they may react negatively to reaching hierarchical and/or job content plateaus. If no opportunities are available, employees may be more likely to make due with the present situation and react less negatively to plateauing.

Hypothesis 12a: Alternative job opportunities will moderate the relationship between hierarchical career plateauing and outcome variables (facets of job satisfaction, organizational commitment, number of hours worked per week, job related health concerns, intention to quit).

Hypothesis 12b: Alternative job opportunities will moderate the relationship between job content career plateauing and outcome variables (facets of job satisfaction, organizational commitment, number of hours worked per week, job related health concerns, intention to quit).

Job Content Plateauing. Job content plateauing refers to the extent to which an employee perceives his or her job to be lacking in terms of opportunities for growth and challenge. Bardwick (1986) describes individuals as content plateaued when they know their jobs too well. These employees have become experts, and there is nothing left for them to learn. Some individuals perceiving a job content plateau may become bored and frustrated by a perceived lack of continued challenge and growth.

Milliman (1992a) investigated job content plateauing as a potential moderator of the relationship between hierarchical career plateauing and a number of outcome variables. As was previously mentioned, job content plateauing accounted for a significant amount of variance for company satisfaction, promotion satisfaction, and promotion aspiration. As expected, for a given level of hierarchical career plateauing, the additional perception of a job content plateau contributed to lower levels of company satisfaction. The results for promotion satisfaction and promotion aspiration were less clear. More specifically, individuals perceiving both hierarchical and job content plateaus expressed higher promotion satisfaction and higher levels of promotion aspiration. Milliman (1992a) suggested that more research should be done in this area to help sort out these findings. The present study will thus re-investigate job content plateauing as a potential moderator of the relationship between hierarchical career plateauing and outcome variables. Intuitively, an individual who perceives both an end to

promotions and a lack of challenge on the job will exhibit lower levels of job satisfaction and organizational commitment, and will report fewer number of hours worked per week, a greater intention to quit, and more health concerns than employees at a hierarchical plateau who do not have to deal with a job content plateau simultaneously.

Hypothesis 13: The perception of a job content plateau will moderate the relationship between hierarchical career plateauing and outcome variables (facets of job satisfaction, organizational commitment, number of hours worked per week, job related health concerns, intention to quit).

Age. Age has been included in many studies of career plateauing. Early studies suggested that plateaued employees were significantly older than those who were nonplateaued (Near, 1983, 1985; Savery, 1989; Slocum et al., 1985). More recent studies have used age as a control variable in hierarchical regression analyses (Chao, 1990; Ettington, 1992; Milliman, 1992a, 1992b; Tremblay et al., 1992). The present study will consider age in both of these traditional ways. It will examine the relationship between age and plateauing and it will also use age as a control variable for the statistical analyses. The problem with age in plateauing research is its positive correlation with plateauing. Correlations between career plateauing and age have been reported as .29 by Milliman (1992a) and .37 by Tremblay et al. (1992).

An alternate way of viewing age might be as a potential moderator of the relationship between career plateauing and outcome variables. More specifically, for a given level of career plateauing, older employees may express different levels of outcome variables than do younger employees. Age may be a better way to account for time-related changes in reactions to plateauing than job tenure. The hypothesis is consistent with findings of previous organizational research where age has been found to be correlated with several job attitudes. Lee and Wilbur (1985), for example, report that older employees tend to be more job satisfied than younger employees. Similarly, Mathieu and Zajac (1990) report a positive correlation between age and organizational commitment.

Hypothesis 14a: Employee age will moderate the relationship between hierarchical career plateauing and outcome variables (facets of job satisfaction, organizational commitment, number of hours worked per week, job related health concerns, intention to quit).

Hypothesis 14b: Employee age will moderate the relationship between job content career plateauing and outcome variables (facets of job satisfaction, organizational commitment, number of hours worked per week, job related health concerns, intention to quit).

Summary of Hypotheses

A summary of the hypotheses developed for the present study is listed below.

Hypothesis 1

Hierarchical career plateauing will be related to demographic factors. More specifically:

a: Age will be positively related to perceptions of both hierarchical and job content career plateauing.

b: Education level will be negatively related to perceptions of both hierarchical and job content career plateauing.

Hypothesis 2

a: Perceptions of a hierarchical career plateau will be negatively related to facets of job satisfaction.

b: Perceptions of a job content career plateau will be negatively related to facets of job satisfaction.

Hypothesis 3

a: Perceptions of a hierarchical career plateau will be negatively related to organizational commitment.

b: Perceptions of a job content career plateau will be negatively related to organizational commitment.

Hypothesis 4

a: Perceptions of a hierarchical career plateau will be negatively related to the number of hours worked per week.

b: Perceptions of a job content career plateau will be negatively related to the number of hours worked per week.

Hypothesis 5

a: Perceptions of a hierarchical career plateau will be positively related to employee health concerns.

b: Perceptions of a job content career plateau will be positively related to employee health concerns.

Hypothesis 6

a: Perceptions of a hierarchical career plateau will be positively related to intention to quit.

b: Perceptions of a job content career plateau will be positively related to intention to quit.

Hypothesis 7

a: The perceptual measure of hierarchical career plateauing will account for more variance in the outcome measures than the traditional job tenure measure of plateauing.

b: The perceptual measure of job content career plateauing will account for more variance in the outcome measures than the traditional job tenure measure of plateauing.

Hypothesis 8

a: Job tenure will moderate the relationship between hierarchical career plateauing and outcome variables (facets of job satisfaction, organizational commitment, number of hours worked per week, job related health concerns, intention to quit).

b: Job tenure will moderate the relationship between job content career plateauing and outcome variables (facets of job satisfaction, organizational commitment, number of hours worked per week, job related health concerns, intention to quit).

Hypothesis 9

a: Promotion aspiration will moderate the relationship between hierarchical career plateauing and outcome variables (facets of job satisfaction, organizational commitment, number of hours worked per week, job related health concerns, intention to quit).

b: Promotion aspiration will moderate the relationship between job content career plateauing and outcome variables (facets of job satisfaction, organizational commitment, number of hours worked per week, job related health concerns, intention to quit).

Hypothesis 10

a: Life satisfaction will moderate the relationship between hierarchical career plateauing and outcome variables (facets of job satisfaction, organizational commitment, number of hours worked per week, job related health concerns, intention to quit).

b: Life satisfaction will moderate the relationship between job content career plateauing and outcome variables (facets of job satisfaction, organizational commitment, number of hours worked per week, job related health concerns, intention to quit).

Hypothesis 11

a: Participation in employee development opportunities will moderate the relationship between hierarchical career plateauing and outcome variables (facets of job satisfaction, organizational commitment, number of hours worked per week, job related health concerns, intention to quit).

b: Participation in employee development opportunities will moderate the relationship between job content career plateauing and outcome variables (facets of job satisfaction, organizational commitment, number of hours worked per week, job related health concerns, intention to quit).

Hypothesis 12

a: Alternative job opportunities will moderate the relationship between hierarchical career plateauing and outcome variables (facets of job satisfaction, organizational commitment, number of hours worked per week, job related health concerns, intention to quit).

b: Alternative job opportunities will moderate the relationship between job content career plateauing and outcome variables (facets of job satisfaction, organizational commitment, number of hours worked per week, job related health concerns, intention to quit).

Hypothesis 13

The perception of a job content plateau will moderate the relationship between hierarchical career plateauing and outcome variables (facets of job satisfaction, organizational commitment, number of hours worked per week, job related health concerns, intention to quit).

Hypothesis 14

a: Employee age will moderate the relationship between hierarchical career plateauing and outcome variables (facets of job satisfaction, organizational commitment, number of hours worked per week, job related health concerns, intention to quit).

b: Employee age will moderate the relationship between job content career plateauing and outcome variables (facets of job satisfaction, organizational commitment, number of hours worked per week, job related health concerns, intention to quit).

CHAPTER III

METHOD

Participants

Employees working for eight health care facilities in a southeastern state served as participants in this study. Seven of these facilities were members of the same health care system. The eighth facility had done some training in conjunction with some of the members of the health system. The eight health care facilities ranged from small to large, employing from 120 to nearly 2000 workers. Some of these facilities were rural hospitals while others were located in urban environments.

A small group of employees (N=36) from a single facility were used to pilot test the survey questionnaire. While most of the scales included in the questionnaire have been used in previous research, the pilot study was conducted to ensure the clarity and reliability of the measures. Results from the pilot study are described in Chapter IV.

After appropriate changes to the survey were made based on the pilot results, all 3646 employees of the eight hospitals, including those who participated in the pilot study, had an opportunity to participate in the major study. While most of the previous research on plateauing has examined managerial populations, the current study utilized employees at all levels of the organization. Thus, this study acknowledged the possible incidence of plateauing throughout organizational levels. Nine hundred and fifty-six employees responded to the survey, indicating a response rate of 26%. Demographic characteristics of the sample are reported in Table 1.

In an effort to examine the similarities between the survey respondents and nonrespondents, information about the entire population was sought. While only a limited amount of demographic information was available for the entire population, information about gender and race was made available to the researcher. The approximate distribution of males and females in the population of employees is 18% and 82%, respectively. Regarding race,

Table 1. Demographic Characteristics of Survey Respondents for the Major Study (N =956).

Variable	N	Mean	Standard Deviation	Range
Age	907	37.6 Years	9.80	17-69
Company Tenure	909	7.0 Years	6.31	0-31
Job Tenure	767	4.8 Years	5.03	0-28
Hours Worked Per Week	921	42.4 Hrs/Wk	11.07	5-99

Variable		Number	%
Gender	Male	163	(17%)
	Female	781	(83%)
Race	Caucasian	893	(97%)
	Other	30	(3%)
Education Level			
	Elementary School	3	(.5%)
	Some High School	10	(1%)
	High School Diploma or GED	90	(10%)
	Trade or Technical School	56	(6%)
	Some College	135	(14%)
	Certification Program	90	(10%)
	Nursing Diploma Graduate	89	(10%)
	Associate's Degree	163	(17%)
	Bachelor's Degree	183	(19%)
	Some Graduate Work	43	(5%)
	Graduate Degree	79	(8%)
Marital Status			
	Single, Never Married	136	(15%)
	Married	651	(69%)
	Separated	9	(1%)
	Divorced	133	(14%)
	Widowed	10	(1%)

Table 1. (continued)

Variable	Number	%
Type of Job		
Supervisory	259	(29%)
Non-supervisory	651	(72%)
Nursing	326	(36%)
Non-nursing	592	(65%)
Department/Area		
Medical	321	(35%)
Surgery	102	(11%)
Support Services	374	(41%)
Diagnostics	115	(13%)
Facility		
Loudon	35	(4%)
Parkwest	253	(27%)
Regional	381	(41%)
Sevier	87	(9%)
TCSC	38	(4%)
Alliance	44	(5%)
FS West	11	(1%)
Harriman	90	(10%)

95% of the population is Caucasian, and 5% is minority. The percentages obtained based on the survey responses resembled these figures within two percentage points.

Procedure

A survey questionnaire was used to collect data for this study. In order to ensure the reliability and clarity of the measures, a small pilot study was conducted with a sample of employees chosen from the stated population. In addition to the survey, these pilot study participants were asked to comment on the questionnaire itself, and to identify items and instructions that were unclear. Appropriate changes were then made.

Survey participants received a cover letter that explained the survey and the survey process. While this letter encouraged participation, the voluntary nature of the study was explicitly stated. Questionnaires and pre-addressed envelopes were distributed to employees when they received their pay checks. Respondents were asked to fill out the questionnaire and place it in the envelope. For the pilot study, the surveys were returned through inter-office mail to the human resource department where it was collected by the researcher. These envelopes were stamped "confidential," and were not opened by employees of the health care system. For the major study, the surveys were returned to the researcher in self-addressed, stamped envelopes through the U.S. mail. This change was made in an effort to increase the response rate. Anonymity and confidentiality were assured.

In order to investigate the proposed hypotheses, the questionnaire included a number of demographic and attitudinal variables. Participants were asked to report their age, educational level, gender, race, marital status, job tenure, company tenure, department, facility, and type of job. They were also asked to respond to survey items pertaining to hierarchical career plateauing, job content career plateauing, job satisfaction (overall and facets), organizational commitment, intention to quit, job-related health concerns, and the number of hours worked per week. Additional items assessed promotion aspiration, life satisfaction, participation in employee development opportunities, and their perception of the availability of

alternate job opportunities. A copy of the cover letter and survey sent to employees is provided in Appendix A.

Measures

Career Plateauing

Hierarchical Career Plateauing. In order to assess the extent to which the employee perceives him or herself to be career plateaued, a six-item measure developed by Milliman (1992a) was used (see Figure 7). Participants indicated on a seven-point Likert scale the extent to which they agreed or disagreed with items pertaining to opportunities for promotion within their organization (1 = strongly disagree to 7 = strongly agree). The mean of the items was used as the scale score, with higher mean scores indicating a greater perception of reaching a hierarchical career plateau. A sample item includes, "My opportunities for upward movement are limited in my present organization." The items were modified slightly from their original wording to be tailored to the current study.

It should be noted that the items in the scale refer to whether an individual perceives lack of opportunity to get ahead in his or her current company. The six organization-specific items thus measure employee perceptions of career plateauing within the current organization. The measure does not ask employees whether they feel plateaued after considering positions that could be obtained outside of the present organization. While a career typically refers to a lifelong series of jobs (Feldman, 1988), the operationalization of career plateauing used in the present study more accurately reflects perceptions of reaching a career plateau in the current organization. References made to hierarchical career plateauing throughout the present study will refer to perceptions of career plateauing within the current organization.

The use of a previously established plateauing scale was expected to increase the reliability of results. It should also help to contribute to the continuity of plateauing research. Using Cronbach's alpha, Milliman (1992a) found the internal reliability of the scale to be .90. Test-retest reliability of the scale was .88 after a period of four weeks (Milliman, 1992a). Reliability of the scale with the current sample was .86 using coefficient alpha estimates.

1. My opportunities for upward movement are limited in my present organization.

2. I expect to be promoted frequently in my company in the future. (reverse scored)

3. I have reached a point where I do not expect to move much higher in my company.

4. The likelihood that I will get ahead in my organization is limited.

5. I am unlikely to obtain a much higher job title in my organization.

6. I expect to advance to a higher level in my company in the near future. (reverse scored)

Note: Items are rated on a seven-point scale (1 = strongly disagree to 7 = strongly agree).

Figure 7. Items Measuring Hierarchical Career Plateauing; Milliman, 1992a.

Job Content Plateauing. A six-item measure adapted from Milliman (1992a) was used to assess the extent to which participants perceive a job content plateau (see Figure 8). Participants were asked to indicate on a seven-point Likert scale, the extent to which they agreed or disagreed with items pertaining to their current jobs' challenge and variety (1 = strongly disagree to 7 = strongly agree). The mean of the items was used as the scale score, with higher mean scores indicating a greater perception of reaching a job content plateau. The items have been adapted from their original form to capture the extent to which employees currently feel job content plateaued. Using Cronbach's alpha, Milliman (1992a) found the internal reliability of the scale to be .87. Test-retest reliability of the scale was .77 after a period of four weeks (Milliman, 1992a). Coefficient alpha reliability estimates for the current sample indicate acceptable reliability (.82).

Outcome Variables

Job satisfaction was measured in terms of overall job satisfaction and satisfaction with specific facets of the job (see Figure 9). All items were assessed on a seven-point Likert scale (1 = strongly disagree to 7 = strongly agree).

Social Reward Satisfaction. Operationally defined, social reward satisfaction refers to satisfaction with co-workers. This facet of satisfaction was measured using three items (see Figure 9) adapted from the Michigan Organizational Assessment Questionnaire (Cammann, Fichman, Jenkins, & Klesh, 1983). Participants were asked to rate on a seven-point Likert scale the extent to which they agreed or disagreed with items pertaining to their satisfaction with their co-workers (1 = strongly disagree to 7 = strongly agree). The mean of these three items represented a score for social reward satisfaction, with a higher mean suggesting a greater level of satisfaction with social rewards (co-workers). The internal consistency reliability for the original measure has been reported as .87 (Cammann et al., 1983). The coefficient alpha reliability estimate for the present study is .88.

Intrinsic Reward Satisfaction. A three item measure was used to assess participants' satisfaction with intrinsic rewards (see Figure 9). The items were adapted from the Michigan

1. I expect to be constantly challenged in my job. (reverse scored)

2. I have a chance to learn and grow a lot in my current job. (reverse scored)

3. My job tasks and activities are becoming routine for me.

4. My job responsibilities are significantly increasing. (reverse scored)

5. My job will requires me to continually extend my abilities and knowledge. (reverse scored)

6. I am challenged by my job. (reverse scored)

Note: Items are rated on a seven-point scale (1 = strongly disagree to 7 = strongly agree).

Figure 8. Items Measuring Job Content Career Plateauing; adapted from Milliman, 1992a.

Social Reward Satisfaction

1. I am satisfied with the way I am treated by my co-workers.
2. I am satisfied with the respect I receive from my co-workers.
3. I am satisfied with the friendliness of the people I work with.

Intrinsic Reward Satisfaction

1. I am satisfied with the chances I have to learn new things.
2. I am satisfied with the chances I have to accomplish something worthwhile.
3. I am satisfied with the chances I have to do something that makes me feel good about myself as a person.

Pay Satisfaction

1. I am happy with the amount of money I make.
2. Considering my skills and the effort I put into my work, I am satisfied with my pay.
3. I am satisfied with the amount of pay I get.

Promotion Satisfaction

1. In this company, promotions are handled fairly.
2. My chances for promotion are good.
3. My organization is concerned about giving everyone a chance to get ahead.

Overall Job Satisfaction[a]

1. All in all, I am satisfied with my job.
2. In general, I like my job.
3. In general, I like working here.

Note: Items are rated on a seven-point scale (1 = strongly disagree to 7 = strongly agree).

[a] These three items were combined with the 12 facet satisfaction items to yield one measure of "overall job satisfaction."

Figure 9. Items Measuring Job Satisfaction; adapted from Cammann, Fichman, Jenkins, & Klesh, 1983; Quinn & Shepard, 1974.

Organizational Assessment Questionnaire (Cammann et al., 1983). Respondents were asked to indicate on a seven-point Likert scale the extent to which they agreed or disagreed with items pertaining to intrinsic aspects of the job (1 = strongly disagree to 7 = strongly agree). The mean of the items was used as the scale score, with higher mean scores indicating greater degrees of satisfaction with rewards inherent in the job itself. The coefficient alpha reliability estimate of the original scale was reported as .87 (Cammann et al., 1983), and for the current study was .81.

Pay Satisfaction. Pay satisfaction was assessed using three items (see Figure 9) adapted from the Michigan Organizational Assessment Questionnaire (Cammann et al., 1983). Respondents were asked to rate on a seven-point Likert scale the extent to which they agreed or disagreed with items pertaining to the amount of money they make (1 = strongly disagree to 7 = strongly agree). The mean of the three items represented a scale score, with higher scores suggesting greater levels of pay satisfaction. Cammann et al. (1983) report the internal consistency (coefficient alpha) of the original scale to be .89, and it is reported to be .96 in the present study.

Promotion Satisfaction. Promotion satisfaction was assessed using three items (see Figure 9) adapted from the 1972-1973 Quality of Employment Survey by Quinn and Shepard (1974). Participants were asked to indicate on a seven-point Likert scale the extent to which they agreed or disagreed with items pertaining to promotion within their organization (1 = strongly disagree to 7 = strongly agree). The mean of these three items represented a scale score, with higher means indicating higher satisfaction with promotion. Quinn and Shepard (1974) report the internal consistency (coefficient alpha) of the scale to be .76, while it was reported as .79 in the current study.

Overall Job Satisfaction. To assess overall satisfaction, three items were used to supplement the twelve items previously introduced (see Figure 9). These items were adapted from the Michigan Organizational Assessment Questionnaire (Cammann et al., 1983). Participants were asked to indicate on a seven-point Likert scale the extent to which they

agreed or disagreed with three items pertaining specifically to their overall job satisfaction (1 = strongly disagree to 7 = strongly agree). Scores on these three items were combined with the respondents' scores on the other twelve job satisfaction items so that the mean of the fifteen items represented a score for overall job satisfaction. A higher mean score indicated a greater level of satisfaction on the job. The coefficient alpha reliability estimate for the 15-item measure of overall job satisfaction was .90 for the present study.

Organizational Commitment. Organizational commitment was assessed using the short form of the Organizational Commitment Questionnaire (Mowday et al., 1979). This scale consists of nine items, and participants were asked to indicate on a seven-point Likert scale, the extent to which they agreed or disagreed with items pertaining to their feelings about their current organization (1 = strongly disagree to 7 = strongly agree) (see Figure 10). The mean of the items was used as an indicator of organizational commitment, with higher mean scores suggesting a greater level of organizational commitment. A sample item includes, "I am willing to put in a great deal of effort beyond that normally expected in order to help this organization be successful." Ettington (1992) used this version of Mowday et al.'s (1979) scale and obtained an internal consistency (Cronbach's alpha) of .82. The reliability estimate (coefficient alpha) obtained in the present study was .92.

Intention to Quit. In order to assess participants' intention to quit, three items were used (see Figure 11). Two of these items were adapted from the Michigan Organizational Assessment Questionnaire. Respondents were asked the extent to which they agreed or disagreed with three items dealing with thoughts about and intentions of quitting (1 = strongly disagree to 7 = strongly agree). The mean of the three items was used as the scale score, with higher scores indicating a greater intention to turnover. The reliability estimate (coefficient alpha) for the present study was .96.

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

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

3. I would accept almost any type of job assignment in order to keep working for this organization.

4. I find that my values and the organization's values are very similar.

5. I am proud to tell others that I am part of this organization.

6. This organization really inspires the very best in me in the way of job performance.

7. I am extremely glad that I chose this organization to work for over others I was considering at the time I joined.

8. I really care about the fate of this organization.

9. For me, this is the best of all possible organizations for which to work.

Note: Items are rated on a seven-point scale (1 = strongly disagree to 7 = strongly agree).

Figure 10. Items Measuring Organizational Commitment; Mowday et al., 1979.

1. I will probably look for a new job in the next year.

2. It is likely that I will actively search for a new job in the next year.

3. I plan to look for a new job before long.

Note: Items are rated on a seven-point scale (1 = strongly disagree to 7 = strongly agree).

Figure 11. Items Measuring Intention to Quit; adapted from Cammann, Fichman, Jenkins, & Klesh, 1983.

Job-related Health Concerns. Participants were asked to complete a seven item measure to assess job-related tension (see Figure 12). These items were originally developed by House and Rizzo (1972) in their seventeen-item Anxiety-Stress Questionnaire which measured job-related tension and pressures (e.g., irritability, nervousness) as well as physical symptoms (e.g., tiredness, weakness). The scale used in the present study included only those items that assessed job-induced tension. The original response scale (yes/no) was adapted to a seven-point Likert scale. Participants were asked to respond on a seven-point scale the extent to which they agreed or disagreed with items pertaining to job-related health concerns (1 = strongly disagree to 7 = strongly agree). The mean of the seven items was used as an indicator of job-induced tension, with higher scores suggesting greater levels of job-induced tension. The reliability estimate (coefficient alpha) for the current study was .85.

Potential Moderating Variables

Promotion Aspiration. Promotion aspiration was assessed by a three-item scale developed by Milliman (1992a) (see Figure 13). Participants were asked to indicate on a seven-point Likert scale the extent to which they agree or disagree with statements describing their desire for promotion (1 = strongly disagree to 7 = strongly agree). A sample item includes "I definitely want to be promoted." The mean of the three items was used as an indicator of subjects' promotion aspiration. The internal reliability of this scale as assessed by Cronbach's alpha is .89 as reported by Milliman (1992a). The reliability estimate (coefficient alpha) obtained in the current study was .90.

Life Satisfaction. Six items were used to measure life satisfaction (see Figure 14). These items were adapted from Andrews and Withey (1976) and the Satisfaction With Life Scale (Diener, Emmons, Larsen, & Griffen, 1985). Participants were asked to indicate on a seven-point Likert scale the extent to which they agreed or disagreed with statements about their satisfaction with several aspects of their life and life in general (1 = strongly disagree to 7 = strongly agree). The mean of the six items was used as an indicator of life satisfaction.

1. My job tends to directly affect my health.

2. I work under a great deal of tension.

3. I have felt anxious or nervous as a result of my job.

4. If I had a different job, my health would probably improve.

5. Problems associated with my job have kept me awake at night.

6. I have felt nervous before attending meetings in the company.

7. I often "take my job home with me" in the sense that I think about it when doing other things.

Note: Items are rated on a seven-point scale (1 = strongly disagree to 7 = strongly agree).

Figure 12. Items Measuring Job-related Health Concerns; House and Rizzo, 1972.

1. I definitely want to be promoted.

2. It is important for me that I be promoted.

3. I desire to move up to higher levels in my company.

Note: Items are rated on a seven-point scale (1 = strongly disagree to 7 = strongly agree).

Figure 13. Items Measuring Promotion Aspiration; Milliman, 1992a.

1. In general, I am satisfied with the amount of fun I am having in my life.

2. I am satisfied with the amount of free time that I have.

3. The conditions of my life are excellent.

4. I am satisfied with how I get along with others.

5. I am satisfied with my family life.

6. I am satisfied with my life as a whole.

Note: Items are rated on a seven-point scale (1 = strongly disagree to 7 = strongly agree).

Figure 14. Items Measuring Life Satisfaction; Andrews & Withey, 1976; Diener et al., 1985.

Higher mean scores indicated greater levels of life satisfaction. The reliability estimate (coefficient alpha) of the six item measure was .81 in the current study.

Participation in Employee Development Opportunities. In order to assess the extent to which subjects have participated in employee development opportunities in their current organization, participants were presented with a list of developmental programs. The majority of the activities listed were adapted from the career development interventions identified and defined by Russell (1991). Other organization-specific activities were included based on consultations with human resource personnel at one of the current organizations.

Respondents were asked to indicate on a five-point Likert scale the extent to which they participated in each of the 12 activities (1 = never to 5 = very often) (see Figure 15). All activities were defined in order to give respondents a common frame of reference. The mean across items was used to assess employee participation in development opportunities. Higher mean scores indicated greater levels of participation in employee development opportunities. Future research could examine these and other specific career development programs and whether they moderate the relationships between career plateauing and job attitudes.

Alternative Job Opportunities. In order to assess the degree to which participants feel they could obtain a desirable position outside of their current organization, three items were used (see Figure 16). The first item was adapted from Lee and Mowday (1987). Two additional items were developed by the researcher to indicate the extent to which respondents agreed or disagreed with statements pertaining to the availability of job opportunities in other organizations. All items were rated using a seven-point Likert scale (1 = strongly disagree to 7 = strongly agree). The mean of the three items represented a scale score for alternative job opportunities. A high score on this measure suggests a greater perception of finding an acceptable position outside of the current organization. The coefficient alpha reliability estimate based on the current sample was .81.

Demographic Variables. Information about several demographic variables was collected in the present study. More specifically, survey respondents were asked to write in

Below is a list of various career development activities. Please use the following scale to circle one response for each activity to indicate how often you have participated.

Career Counseling: One-on-one discussions between you and your supervisor to talk about your career goals and interests.

Flexible Scheduling: Having flexibility with the type of shifts you work (weekends only, every other weekend, no weekends), length of shifts (8, 10, 12 hours), and specified arrival and departure times.

Job Posting: Checking information displayed within the hospital to inform you of job openings within the organization.

Job Rotation: Participation in multiple jobs, often at a similar level, to develop a broad skill base.

In-house Training Programs: Attendance at internal training programs to develop job-related skills.

External Training Seminars: Attendance at external training programs to develop job-related skills.

Tuition Reimbursement: Partial or full financial reimbursement to you for enrolling in courses or degree-granting programs.

Continuous Quality Improvement (CQI) Process: Participation in the CQI process as a trainer, facilitator, trainee, or member of a problem solving team.

Informal Problem Solving Teams: Participation in informal work teams created to solve problems.

Preceptor Program: Becoming a mentor of a new employee.

Career Exploration: Using resources available in the community (workshops, libraries, resource centers, counselors) to find out more about your career goals and interests.

Professional or Personal Development Opportunities: Seeking additional training outside of your organization to further your own career aspirations or personal development.

Note: Items are rated on a five-point scales (1 = never to 5 = very often),

Figure 15. Items Measuring Participation in Employee Development Opportunities.

1. All in all, I could probably find an acceptable job with another hospital.

2. I know of job opportunities in other organizations that I could obtain.

3. I could probably get a good job in another organization if I wanted one.

Note: Items are rated on a seven-point scale (1 = strongly disagree to 7 = strongly agree).

Figure 16. Items Measuring Alternative Job Opportunities; adapted from Lee and Mowday, 1987.

their age, organization tenure, job tenure, and the number of hours they spend on work per week. Respondents were also asked to indicate their gender (male, female), race (Caucasian, African American, Asian American, Native American, Hispanic, Other), and marital status (single, married, separated, divorced, widowed). The survey also included items about education level (elementary school, some high school, high school diploma/GED, trade or technical training, some college, certification program, nursing diploma graduate, two year associate's degree, four year college degree, some graduate work, graduate degree, other) and work facility (Loudon Medical Center, Parkwest Medical Center, Regional Medical Center, Sevier Medical Center, Thompson Cancer Survival Center, Alliance Employee, and Fort Sanders West). The Harriman facility joined the study after initial surveys had been sent out, and they did not have their facility coded on the list. To identify responses from this facility, the researcher's name was highlighted on the response envelopes sent to Harriman so that they could be identified when they were returned. Survey respondents were also asked to indicate which department or area they worked in (medical, surgery, support service, diagnostics) and whether their current jobs were supervisory/non-supervisory and nursing/non-nursing.

Data Analysis

Summary statistics were calculated to describe the characteristics of the sample. These statistics report age, educational level, gender, race, marital status, job tenure, company tenure, and occupation. Tests of internal consistency (coefficient alpha) were used to assess the reliability of each of the scales used. In addition, descriptive statistics (means, standard deviations, and ranges) were reported for each of the variables. Correlations among the variables were analyzed and reported.

Hypothesis Tests. The correlations among the variables were examined in order to assess the first hypothesis regarding the relationships of age and educational level to perceptions of hierarchical and job content career plateauing. Hierarchical multiple regression analyses were used to test the set of hypotheses pertaining to the relationships between career plateauing and job attitudes. More specifically, the job attitudes (outcomes) under

investigation served as the dependent variables and the two measures of career plateauing served as the independent variables. Separate equations were created for each dependent variable under investigation. Hierarchical regression analysis was used to allow these relationships to be investigated after controlling for age, supervisory status, and facility. The control variables were entered in step one and the career plateauing measures were entered in the second step.

Hierarchical multiple regression analysis was used to test the hypothesis comparing the relationship between the traditional measure of career plateauing (job tenure) and the outcome measures, relative to the relationship between the perceptual measures (hierarchical and job content career plateauing) and the outcome measures. The job attitudes under investigation served as the dependent variables, and separate equations were created for each of these dependent variables. For these analyses, control variables (age, supervisory status, facility) were entered into the equation first followed by job tenure during second step. Finally, career plateauing was added in the third step. An incremental change in R^2 indicated the perceptual measures' ability to account for additional variance in the dependent variables than the more traditional measure of job tenure.

To test the moderator hypotheses, hierarchical regression analysis was used. The job attitudes under investigation served as the dependent variables, and separate equations were created for each of these dependent variables. For these analyses, the proposed moderating variable, career plateauing, and an interaction term functioned as independent variables. The control variables (age, supervisory status, facility) were added to the equation during the first step. The proposed moderator was added during the second step. During the third step, career plateauing was added. The interaction term (career plateauing multiplied by the proposed moderating variable) was added to the equation during the fourth step, and significance of this interaction term indicated a moderating effect (James & Brett, 1984).

The proposed analyses (i.e., testing for moderators) dictate the need for a large sample size. A power analysis was conducted to determine the actual number of subjects needed.

The results indicated that a sample size of 332 employees was needed to achieve a power of .80. The computations for the power analysis are shown in Appendix B.

Additional Analyses. Several additional analyses were conducted after the original hypotheses had been examined. In relation to the analysis that examined the utility of the career plateauing measures in accounting for variance in the outcome measures, an additional analysis was performed. Using hierarchical multiple regression analysis, the first analysis explored whether the perceptual measure of job content career plateauing would account for a significant amount of additional variance in the outcome measures when added to an equation consisting of the control variables (age, supervisory status, facility), and job tenure, as well as the perceptual measure of hierarchical career plateauing. As in the analyses above, an incremental change in R^2 indicated the ability of the job content plateauing measure to account for a significant amount of additional variance in the dependent variables than the measures of job tenure and hierarchical career plateauing.

A second series of analyses looked more closely at some of the demographic information collected in the study. More specifically, the variables of gender, supervisor status, and nursing were investigated to examine whether the distributions of males and females across supervisory and nursing positions were random. Two cross tabulations were performed, one for gender and supervisor status and the other for gender and nursing. Significant chi-square analyses indicated that the classification of males and females into the positions of supervisor and nursing were not random. Since age, supervisory status, and work facility already functioned as control variables in the previous analyses, regression analyses were conducted to examine whether nursing and gender were related to differences in responses to the outcome variables. The job attitudes under investigation served as the dependent variables, and the demographic variables under investigation served as independent variables. Where strong relationships were detected, the analyses conducted in the major study were performed again, adding nursing or sex to the first step of the hierarchical equations as needed.

CHAPTER IV

RESULTS

The results of the data analyses are reported in this chapter. The findings of the pilot study are presented first. These are followed by a second section which reports the results of the major study. The additional analyses conducted for the study (post hoc) are reported last.

Pilot Study

A pilot study was conducted to determine the clarity and readability of the questionnaire and to test the internal reliability of the measures. Questionnaires were distributed to 120 employees in three departments of a large hospital in a southeastern state. These departments included a large nursing department and two small administrative departments. Thirty six questionnaires were returned, for a response rate of 30%.

Summary statistics have been calculated to describe the characteristics of the pilot sample. These demographic statistics are reported in Table 2. Tests of internal consistency (coefficient alpha) were conducted to assess the reliability of each of the scales used. All of the fourteen measures included in the questionnaire showed adequate levels of internal consistency reliability (Cronbach's alpha). The internal reliability for the measures ranged from .75 for the measure of alternative job opportunities to .95 for pay satisfaction.

A number of variable names were lengthy and difficult to display in the tables included in Chapter IV. Therefore, several abbreviations were used. An explanation of these abbreviations is included in Figure 17.

Table 3 reports the descriptive statistics for the measures used, including the internal consistency reliability estimates of reliability (Cronbach's alpha) for each measure. Correlations among the variables were also analyzed. The correlation matrix is reported in Table 4.

Based on the pilot study, the formatting and wording of the questionnaire were adjusted slightly. Several changes were made to the section of the survey that asks for background information. A number of participants failed to respond to the question regarding

Table 2. Demographic Statistics for Pilot Sample (N = 36).

Variable	N	Mean	Standard Deviation	Range
Age	34	33.5 Years	10.5	19-56
Company Tenure	33	4.9 Years	5.15	.5-24
Job Tenure	29	3.07 Years	4.05	.5-21

Variable		Number	%
Gender	Male	5	(16%)
	Female	27	(84%)
Race	Caucasian	32	(97%)
	Other	2	(3%)
Education Level			
High School Diploma or GED		4	(12%)
Trade or Technical School		3	(9%)
Some College		11	(33%)
Certification Program		3	(9%)
Associate's Degree		5	(15%)
Bachelor's Degree		2	(6%)
Some Graduate Work		3	(9%)
Graduate Degree		2	(6%)
Marital Status			
Single, Never Married		9	(27%)
Married		18	(53%)
Separated		1	(3%)
Divorced		5	(15%)
Widowed		1	(3%)
Type of Job			
Supervisory		10	(30%)
Non-supervisory		23	(70%)

LIST OF ABBREVIATIONS

Hierarchical Career Plateauing	HCP
Job Content Career Plateauing	JCCP
Social Reward Satisfaction	SOCSAT
Intrinsic Reward Satisfaction	INTSAT
Pay Satisfaction	PAYSAT
Promotion Satisfaction	PROSAT
Overall Job Satisfaction	JOBSAT
Intent to Quit	INTOVER
Organizational Commitment	ORGCOM
Job-related Health Concerns	HEALTH
Hours Worked Per Week	HR/WK
Promotion Aspiration	PROASP
Alternative Job Opportunities	ALTJOB
Life Satisfaction	LIFSAT
Employee Participation in Developmental Opportunities	PARTIC
Job Tenure	JOBTEN
Organizational Tenure	ORGTEN
Marital Status	MARSTA
Educational Level	EDUC
Facility	FACIL
Supervisory Status	SUPER
Nursing Status	NURSE
Job Description	JOBDES

Figure 17. An Explanation of the Abbreviations Used in the Results Section.

Table 3. Descriptive Statistics and Coefficient Alpha Reliability Estimates for Measures Used in Pilot Study.

Career Plateauing Measures						
Variable	# Items	N	Mean	Standard Deviation	Range	Cronbach's Alpha
HCP	6	36	4.33	1.42	1.7 - 7	.86
JCCP	6	36	3.54	1.28	1.5-6.2	.82

Measures of Potential Correlates of Plateauing						
Variable	# Items	N	Mean	Standard Deviation	Range	Cronbach's Alpha
SOCSAT	3	36	5.61	1.19	2 - 7	.92
INTSAT	3	36	5.19	1.25	2 - 7	.77
PAYSAT	3	36	2.92	1.64	1 - 6.7	.95
PROSAT	3	35	3.69	1.45	1 - 7	.84
JOBSAT	15	36	4.56	.91	2.5-6.9	.88
INTOVER	4	36	3.65	1.89	1 - 7	.94
ORGCOM	9	36	4.93	1.14	2.4 - 7	.93
HEALTH	15	36	3.24	1.11	1.1-5.8 - 7	.88

Measures of Potential Moderating Variables						
Variable	# Items	N	Mean	Standard Deviation	Range	Cronbach's Alpha
PROASP	3	36	5.65	1.27	1.7 - 7	.88
ALTJOB	3	30	5.50	.69	4 - 7	.75
LIFSAT	10	35	4.82	1.02	2.5 - 6.4	.84
PARTIC	12	35	2.88	0.74	1.3 - 4.4	.78
AGE	1	34	33.5	10.54	19 - 56	--
JOBTEN	1	29	3.07	4.04	.5 - 21	--

Note:
Scale anchors (1 = strongly disagree to 7 = strongly agree) for all measures except participation (1 = never to 5 = very often), age, and job tenure.

Table 4. Pearson Correlations Among Measures in Pilot Study.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1 HCP	--																					
2 JCCP	63	--																				
3 SocSat	-27	-22	--																			
4 IntSat	-68	-72	42	--																		
5 PaySat	-04	-17	-15	03	--																	
6 ProSat	-75	-62	38	73	13	--																
7 JobSat	-65	-64	54	80	43	84	--															
8 Intover	58	53	-36	-59	-08	-62	-69	--														
9 OrgCom	-68	-59	33	67	16	77	79	-79	--													
10 Health	01	12	-05	-21	-21	-27	-32	29	-18	--												
11 Hr/wk	-10	-21	19	-08	11	29	20	-07	20	11	--											
12 ProAsp	-35	-07	15	-01	01	06	05	-07	17	09	16	--										
13 AltJob	25	26	-08	-37	11	-49	-35	47	-54	14	-16	09	--									
14 LifSat	09	-13	-13	09	46	21	27	-07	27	-42	01	-04	-14	--								
15 Partic	-46	-38	31	50	06	45	48	-26	52	03	07	09	-16	16	--							
16 Age	-44	-34	07	31	00	50	38	-56	48	-25	21	12	-35	12	26	--						
17 JobTen	-05	-24	-37	06	24	12	-00	17	-06	-01	03	05	-07	41	04	12	--					
18 Sex	-14	-16	-24	-03	33	-03	06	-05	20	03	-13	20	25	07	20	18	19	--				
19 Race	08	-00	-09	-16	04	-13	-15	29	-16	-06	-06	14	16	22	-17	-00	-10	08	--			
20 MarSta	-01	09	-13	-20	40	10	09	00	01	-27	31	33	15	16	01	30	17	34	-04	--		
21 Educ	-09	-07	-13	-05	16	07	06	-08	05	-26	08	12	11	39	-03	23	26	16	12	37	--	
22 Super	-31	-18	-11	31	-07	32	19	-33	-30	-11	02	-31	-38	-08	01	13	01	-09	-31	-22	-00	--

Note:
Underscore indicates p<.05 (One-tailed p-values)
Decimal points have been omitted

job tenure. Re-positioning and re-wording this question to, "How long have you worked in your current job?" might help to distinguish it from an item assessing company tenure, "How long have you worked in this organization?" The item asking participants to describe their job was modified to become more consistent with surveys previously administered within the health care system. Two items were added to the background questions. One asked respondents whether or not they work as a nurse. The other asked respondents which hospital facility they worked at.

Some of the wording of the individual items was adjusted in an effort to increase the items' readability and clarity. In addition, several items were dropped in an effort to shorten the survey given concerns expressed by the organization. The scales for intent to quit, job-related health concerns, and life satisfaction were all shortened. The items that were actually used in the major study were reported in Chapter III.

In addition to the minor changes made to the survey instrument, several strategies were considered to increase the response rate of the dissertation research. These strategies included: (a) revising the cover letter to emphasize the importance of the data to the participants' organization; (b) having respondents return the questionnaire through the U.S. mail; and (c) asking the contact person to publicize the study and the need for a response from each employee. Each of these changes was made for the major study.

Major Study

Psychometric and Descriptive Properties of Scales

Summary statistics have been calculated to describe the characteristics of the actual sample. These demographic statistics are reported in Table 1 as noted in Chapter III. Tests of internal consistency (coefficient alpha) were also conducted to assess the reliability of the measures used. Assessment of the internal reliability of the measures was especially important for the cases in which the number of items in a scale was reduced (i.e., intention to quit, job-related health concerns, life satisfaction). The internal reliability for the measures used in the actual study ranged from .77 to .96. Table 5 reports the descriptive statistics for the measures

Table 5. Descriptive Statistics and Coefficient Alpha Reliability Estimates for Measures Used in Major Study.

Career Plateauing Measures						
Variable	# Items	N	Mean	Standard Deviation	Range	Cronbach's Alpha
HCP	6	955	4.93	1.42	1 - 7	.86
JCCP	6	956	3.10	1.19	1 - 6.8	.82

Measures of Potential Correlates of Plateauing						
Variable	# Items	N	Mean	Standard Deviation	Range	Cronbach's Alpha
SOCSAT	3	956	5.35	1.37	1 - 7	.88
INTSAT	3	956	5.06	1.34	1 - 7	.81
PAYSAT	3	956	3.21	1.85	1 - 7	.96
PROSAT	3	955	3.30	1.43	1 - 7	.79
JOBSAT	15	956	4.44	1.07	1 - 7	.90
INTOVER	3	952	3.45	1.88	1 - 7	.96
ORGCOM	9	955	4.72	1.22	1 - 7	.92
HEALTH	7	954	4.30	1.31	1 - 7	.85

Measures of Potential Moderating Variables						
Variable	# Items	N	Mean	Standard Deviation	Range	Cronbach's Alpha
PROASP	3	954	4.96	1.48	1 - 7	.90
ALTJOB	3	954	5.49	1.22	1 - 7	.81
LIFSAT	6	954	5.23	1.00	1.3 - 7	.81
PARTIC	12	953	2.70	0.68	1 - 5	.77
AGE	1	907	37.6	9.80	17 - 69	--
JOBTEN	1	767	4.82	5.03	0 - 28	--

Note:
Scale anchors (1 = strongly disagree to 7 = strongly agree) for all measures except participation (1 = never to 5 = very often), age, and job tenure.

used, including the internal consistency reliability estimates (Cronbach's alpha). Correlations among the variables were analyzed and reported in Table 6.

Hypothesis Tests

Demographic Factors Related to Career Plateauing. In order to examine the first hypothesis, correlations between hierarchical and job content career plateauing and two demographic variables were examined (see Table 6). One-tailed p-values are reported because the direction of the hypotheses was specified.

Hypothesis 1a: Age will be positively related to perceptions of both hierarchical and job content plateauing.

Hypothesis 1b: Education level will be negatively related to perceptions of both hierarchical and job content career plateauing.

Results indicate that age was positively related to hierarchical career plateauing ($r = .18$, $p = .0001$, $N = 906$), indicating that older respondents were more likely to report feeling hierarchically plateaued. Age was not found to be related to job content career plateauing ($r = -.04$, NS, $N = 907$). Thus hypothesis 1A was only partially supported. Education level was negatively related to both hierarchical career plateauing ($r = -.10$, $p = .0013$, $N = 940$) and job content career plateauing ($r = -.14$, $p = .0001$, $N = 941$). Hypothesis 1B was thus supported for both types of career plateauing, indicating that individuals with higher educational levels reported feeling less plateaued in their job content and hierarchically.

Relationships Between Career Plateauing and Job Attitudes. Hierarchical multiple regression analysis was performed in order to investigate hypotheses 2 through 6. This type of analysis was used in order to control for age, supervisory status, and facility. In the analyses, the job attitude (e.g., job satisfaction, organizational commitment) served as the dependent variable. The control variables were entered during step one of the analyses. Career plateauing was entered during the second step. Separate equations were used to examine hierarchical and job content career plateauing.

Table 6. Pearson Correlations Among Measures in Major Study.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1 HCP	--																							
2 JCCP	.11	--																						
3 SocSat	.16	.20	--																					
4 IntSat	.40	.60	.41	--																				
5 PaySat	.33	.26	.22	.16	--																			
6 ProSat	.61	.42	.31	.56	.53	--																		
7 JobSat	.53	.52	.61	.78	.72	.80	--																	
8 Intover	.36	.42	.28	.48	.43	.49	.62	--																
9 OrgCom	.44	.43	.31	.58	.39	.60	.70	.59	--															
10 Health	.14	.02	.32	.20	.12	.21	.31	.27	.23	--														
11 Hr/wk	.04	.12	.03	.04	.03	.03	.02	.02	.14	.09	--													
12 ProAsp	.17	.06	.08	.16	.21	.10	.19	.24	.01	.11	.13	--												
13 AltJob	.09	.02	.05	.10	.11	.18	.19	.33	.21	.19	.01	.20	--											
14 LifSat	.00	.04	.24	.11	.04	.06	.06	.04	.12	.24	.08	.03	.03	--										
15 Partic	.22	.29	.06	.23	.08	.21	.19	.27	.23	.09	.18	.20	.12	.07	--									
16 Age	.18	.04	.13	.08	.07	.02	.12	.25	.19	.09	.07	.21	.18	.02	.03	--								
17 JobTen	.10	.01	.02	.00	.03	.10	.01	.14	.09	.07	.13	.21	.18	.01	.04	.43	--							
18 Sex	.00	.01	.01	.06	.02	.00	.06	.03	.04	.00	.15	.14	.07	.03	.05	.00	.00	--						
19 Race	.02	.04	.00	.01	.01	.02	.02	.01	.03	.08	.03	.05	.10	.03	.05	.12	.03	.03	--					
20 MarSta	.04	.02	.01	.01	.01	.03	.01	.02	.05	.01	.00	.06	.06	.10	.01	.28	.11	.10	.14	--				
21 Educ	.10	.14	.09	.08	.20	.08	.13	.03	.06	.07	.00	.01	.22	.01	.16	.12	.16	.02	.17	.11	--			
22 Facil	.02	.04	.03	.06	.01	.08	.07	.09	.15	.04	.04	.06	.01	.04	.12	.15	.03	.07	.09	.04	.01	--		
23 Super	.13	.26	.07	.17	.22	.22	.23	.17	.23	.08	.22	.00	.07	.01	.25	.10	.09	.09	.08	.04	.24	.05	--	
24 Nurse	.02	.11	.00	.06	.02	.08	.02	.04	.09	.07	.10	.08	.11	.00	.12	.12	.00	.24	.03	.08	.21	.04	.04	--

Note:
Underscore indicates p<.05 (One-tailed p-values)
Decimal points have been omitted

Job Satisfaction.

Hypothesis 2a: Perceptions of a hierarchical career plateau will be negatively related to facets of job satisfaction.

Hypothesis 2b: Perceptions of a job content career plateau will be negatively related to facets of job satisfaction.

Hypotheses 2A and 2B were investigated by looking at the relationships between career plateauing and several facets of job satisfaction (i.e., social reward satisfaction, intrinsic job satisfaction, pay satisfaction, promotion satisfaction, and overall job satisfaction) after controlling for employee age, supervisory status, and facility. The results of the hierarchical multiple regression analysis are reported in Table 7 and Table 8. As shown in the tables, both hierarchical and job content career plateauing added a significant change in R^2 for each facet of job satisfaction. Hierarchical career plateauing was significantly related to social reward satisfaction (change in $R^2 = .032$, $p < .01$), intrinsic reward satisfaction (change in $R^2 = .168$, $p < .01$), pay satisfaction (change in $R^2 = .106$, $p < .01$), promotion satisfaction (change in $R^2 = .438$, $p < .01$), and overall job satisfaction (change in $R^2 = .289$, $p < .01$). In each case, the standardized regression weight was negative, suggesting negative relationships between hierarchical career plateauing and facets of job satisfaction. This means that individuals reporting greater perceptions of hierarchical career plateauing were also more likely to be less satisfied with specific aspects of their jobs.

Job content plateauing was also significantly related to social reward satisfaction (change in $R^2 = .040$, $p < .01$), intrinsic reward satisfaction (change in $R^2 = .351$, $p < .01$), pay satisfaction (change in $R^2 = .046$, $p < .01$), promotion satisfaction (change in $R^2 = .150$, $p < .01$), and overall job satisfaction (change in $R^2 = .233$, $p < .01$). As above, the standardized regression weights were negative, suggesting negative relationships between job content career plateauing and facets of job satisfaction. This means that individuals reporting greater perceptions of job content plateauing were more likely to be less satisfied with specific aspects of their jobs.

Table 7. Hierarchical Multiple Regression Analyses: Relationships Between Hierarchical Career Plateauing and Facets of Job Satisfaction.

Dependent Variable	Independent Variable	Standardized Regression Weights Step 1	Step 2
Social Reward Satisfaction	Age	.13***	.17***
	Supervisor	-.05	-.02
	Facility	.02	.01
	Hierarchical CP		-.18***
	R^2 at each step:	.023	.055
	R^2 change:		.032***
	Total Multiple R:	.234	F = 12.37***
Intrinsic Reward Satisfaction	Age	.05	.14***
	Supervisor	-.16***	-.10**
	Facility	.05	.03
	Hierarchical CP		-.42***
	R^2 at each step:	.034	.202
	R^2 change:		.168***
	Total Multiple R:	.449	F = 54.19***
Pay Satisfaction	Age	.04	.11***
	Supervisor	-.22***	-.17***
	Facility	.00	-.01
	Hierarchical CP		-.34***
	R^2 at each step:	.051	.157
	R^2 change:		.106***
	Total Multiple R:	.396	F = 39.92***
Promotion Satisfaction	Age	-.03	.12***
	Supervisor	-.21***	-.11***
	Facility	.07*	.04+
	Hierarchical CP		-.68***
	R^2 at each step:	.050	.488
	R^2 change:		.438***
	Total Multiple R:	.699	F = 204.42***
Overall Job Satisfaction	Age	.08*	.20***
	Supervisor	-.22***	-.13***
	Facility	.06+	.04
	Hierarchical CP		-.56***
	R^2 at each step:	.063	.353
	R^2 change:		.289***
	Total Multiple R:	.594	F = 116.88***

+ $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$

Table 8. Hierarchical Multiple Regression Analyses: Relationships Between Job Content Career Plateauing and Facets of Job Satisfaction.

Dependent Variable	Independent Variable	Standardized Regression Weights Step 1	Step 2
Social Reward Satisfaction	Age	.13***	.13***
	Supervisor	-.05	.00
	Facility	.02	.01
	Job Content CP		-.21***
	R^2 at each step:	.022	.062
	R^2 change:		.040***
	Total Multiple R:	.249	F = 14.12***
Intrinsic Reward Satisfaction	Age	.05	.05+
	Supervisor	-.16***	-.01
	Facility	.05	.03
	Job Content CP		-.61***
	R^2 at each step:	.033	.384
	R^2 change		.351***
	Total Multiple R:	.620	F = 133.89***
Pay Satisfaction	Age	.04	.04
	Supervisor	-.22***	-.16***
	Facility	.00	.00
	Job Content CP		-.22***
	R^2 at each step:	.051	.097
	R^2 change:		.046***
	Total Multiple R:	.311	F = 23.00***
Promotion Satisfaction	Age	-.03	-.03
	Supervisor	-.21***	-.11***
	Facility	.07*	.06+
	Job Content CP		-.40***
	R^2 at each step:	.050	.201
	R^2 change:		.150***
	Total Multiple R:	.448	F = 53.76***
Overall Job Satisfaction	Age	.08*	.08**
	Supervisor	-.22***	-.09**
	Facility	.06+	.04
	Job Content CP		-.50***
	R^2 at each step:	.063	.296
	R^2 change:		.233***
	Total Multiple R:	.544	F = 90.00***

+ $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$

The results of the analyses indicate that hierarchical and job content career plateauing have a negative relationship to each facet of job satisfaction under investigation. That is, employees who perceive themselves to be more plateaued (hierarchical and job content) will also tend to report lower levels of satisfaction. Thus, hypotheses 2A and 2B were supported.

Organizational Commitment.

Hypothesis 3a: Perceptions of a hierarchical career plateau will be negatively related to organizational commitment.

Hypothesis 3b: Perceptions of a job content career plateau will be negatively related to organizational commitment.

The relationships between hierarchical career plateauing and organizational commitment and job content plateauing and organizational commitment were examined in order to investigate hypotheses 3A and 3B. As in the case of job satisfaction, the relationships were examined after controlling for employee age, supervisory status, and facility. The results of the hierarchical multiple regression analysis are reported in Table 9 and Table 10. These tables show that both hierarchical and job content career plateauing added a significant change in R^2 for organizational commitment. Hierarchical career plateauing was significantly related to organizational commitment (change in $R^2 = .211$, $p < .01$). Job content career plateauing was significantly related to organizational commitment (change in $R^2 = .149$, $p < .01$). In both cases, the standardized regression weight was negative, suggesting negative relationships between both types of career plateauing and organizational commitment.

The results of the analyses indicate that hierarchical and job content career plateauing have a strong negative relationship to organizational commitment. That is, employees who perceive themselves to be more plateaued (hierarchical and job content) will also tend to report lower levels of organizational commitment. Hypotheses 3A and 3B were thus supported.

Table 9. Hierarchical Multiple Regression Analyses: Relationships Between Hierarchical Career Plateauing and Employee Attitudes.

Dependent Variable	Independent Variable	Standardized Regression Weights Step 1	Step 2
Organizational Commitment	Age	.15***	.26***
	Supervisor	-.21***	-.14***
	Facility	.12***	.11***
	Hierarchical CP		-.48***
	R^2 at each step:	.098	.309
	R^2 change:		.211***
	Total Multiple R:	.556	F = 95.67***
Number of Hours/ Hours Worked	Age	.08*	.09*
	Supervisor	-.21***	-.20***
	Facility	-.05	-.05
	Hierarchical CP		-.04
	R^2 at each step:	.055	.057
	R^2 change:		.002
	Total Multiple R:	.238	F = 12.60***
Employee Health Concerns	Age	-.14***	-.18***
	Supervisor	-.11**	-.14***
	Facility	-.02	-.02
	Hierarchical CP		-.19***
	R^2 at each step:	.029	.062
	R^2 change:		.033***
	Total Multiple R:	.248	F = 14.06***
Intention to Quit	Age	-.23***	-.31***
	Supervisor	.16***	.10**
	Facility	-.08*	-.06*
	Hierarchical CP		.41***
	R^2 at each step:	.096	.254
	R^2 change:		.158***
	Total Multiple R:	.504	F = 72.62***

+ $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$

Table 10. Hierarchical Multiple Regression Analyses: Relationships Between Job Content Career Plateauing and Employee Attitudes.

Dependent Variable	Independent Variable	Standardized Regression Weights Step 1	Step 2
Organizational Commitment	Age	.15***	.15***
	Supervisor	-.21***	-.11***
	Facility	.13***	.11***
	Job Content CP		-.40***
	R^2 at each step:	.096	.246
	R^2 change:		.149***
	Total Multiple R:	.496	F = 69.74***
Number of Hours/ Week Worked	Age	.08*	.08*
	Supervisor	-.21***	-.18***
	Facility	-.05	-.06+
	Job Content CP		-.10**
	R^2 at each step:	.055	.065
	R^2 change:		.010**
	Total Multiple R:	.255	F = 14.60***
Employee Health Concerns	Age	-.14***	-.14***
	Supervisor	-.11**	-.11**
	Facility	-.03	-.03
	Job Content CP		.00
	R^2 at each step:	.028	.028
	R^2 change:		.000
	Total Multiple R:	.169	F = 6.27***
Intention to Quit	Age	-.23***	-.22***
	Supervisor	.16***	.05+
	Facility	-.08*	-.07*
	Job Content CP		.42***
	R^2 at each step:	.096	.260
	R^2 change:		.165***
	Total Multiple R:	.510	F = 75.04***

+ $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$

Number of Hours Worked per Week.

Hypothesis 4a: Perceptions of a hierarchical career plateau will be negatively related to the number of hours worked per week.

Hypothesis 4b: Perceptions of a job content career plateau will be negatively related to the number of hours worked per week.

In order to investigate hypotheses 4A and 4B, the relationships between both hierarchical and job content career plateauing and the number of hours respondents reported working per week were examined. The relationships were examined after controlling for employee age, supervisory status, and facility. The results of the hierarchical multiple regression analysis are also reported in Table 9 and Table 10. These tables show that hierarchical career plateauing did not add a significant change in R^2 for number of hours worked per week (change in $R^2 = .002$, $p > .10$). The results differed for job content career plateauing, as this type of plateauing added a significant change in R^2 for number of hours worked per week. Job content career plateauing was significantly related to number of hours worked per week (change in $R^2 = .010$, $p < .01$). For job content career plateauing, the standardized regression weight was negative, suggesting a negative relationship between job content career plateauing and number of hours worked per week.

The results of the analyses indicate that while hierarchical career plateauing was not related to the number of hours worked per week, there was a relationship between job content career plateauing and number of hours worked per week. That is, employees who perceived themselves to be more plateaued in terms of job content reported working fewer hours per week. Based on these analyses, hypothesis 4A was not supported, and hypothesis 4B was supported. Hypothesis 4 thus received partial support.

Employee Health Concerns.

Hypothesis 5a: Perceptions of a hierarchical career plateau will be positively related to employee health concerns.

Hypothesis 5b: Perceptions of a job content career plateau will be positively related to employee health concerns.

The relationships between both hierarchical and job content career plateauing and employee health (job-induced tension) were examined in order to investigate hypotheses 5A and 5B. These relationships were examined after controlling for employee age, supervisory status, and facility. The results of the hierarchical multiple regression analysis are reported in Table 9 and Table 10. These tables showed that hierarchical career plateauing added a significant change in R^2 for employee health (change in $R^2 = .033$, $p < .01$). The results differed, however, for job content career plateauing. Job content plateauing did not add a significant change in R^2 for employee health (change in $R^2 = .000$, $p > .10$). For hierarchical career plateauing, the standardized regression weight was positive, suggesting a positive relationship between hierarchical career plateauing and employee health (job-induced tension).

The results of the analyses indicate that while hierarchical career plateauing was significantly related to employee health concerns, there was no significant relationship between job content career plateauing and employee health. That is, employees who perceived themselves to be more hierarchically plateaued also tended to report greater levels of job-induced tension. Based on these analyses, hypothesis 5A was supported, but hypothesis 5B was not. Hypothesis 5 was thus partially supported.

Intention to Quit.

Hypothesis 6a: Perceptions of a hierarchical career plateau will be positively related to intention to quit.

Hypothesis 6b: Perceptions of a job content career plateau will be positively related to intention to quit.

The relationships between both hierarchical and job content career plateauing and employee intention to quit were examined in order to investigate hypotheses 6A and 6B. These relationships were examined after controlling for employee age, supervisory status, and facility. The results of the hierarchical multiple regression analysis are reported in Table 9 and Table 10. These tables show that both hierarchical and job content career plateauing added a significant change in R^2 for intent to quit. Hierarchical career plateauing was

significantly related to intent to quit (change in $R^2 = .158$, $p < .01$). Job content career plateauing was significantly related to intent to quit (change in $R^2 = .165$, $p < .01$). In both cases, the standardized regression weight was positive, suggesting positive relationships between both types of career plateauing and intention to quit.

The results of the analyses indicate that hierarchical and job content career plateauing have a strong positive relationship to employee intention to quit. That is, employees who perceived themselves to be more plateaued (hierarchically and in terms of job content) also tended to report a greater intention to quit the organization. Hypothesis 6 was thus supported.

A Comparison of the Value of Hierarchical and Job Content Career Plateauing Measures Relative to Traditional Career Plateauing Measures in Predicting Job Attitudes.

Hypothesis 7a: The perceptual measure of hierarchical career plateauing will account for more variance in the outcome measures than the traditional job tenure measure of plateauing.

Hypothesis 7b: The perceptual measure of job content career plateauing will account for more variance in the outcome measures than the traditional job tenure measure of plateauing.

In order to examine hypothesis 7, hierarchical multiple regression analysis was used. In the analyses, age supervisory status and facility were entered in the first step in order to control for these variables. Job tenure was added in the second step. In order to examine hypothesis 7A, hierarchical career plateauing was added in step three. To investigate hypothesis 7B, a second set of equations was examined where job content career plateauing was added in the third step. A significant change in R^2 with the addition of the plateauing variables would indicate the ability of the plateauing measures to account for more variance in the attitudinal variables than the more traditional measure of plateauing (i.e, job tenure). The results of these analyses are reported in Table 11 and in Table 12.

As shown in Table 11, hierarchical career plateauing added a significant change in R^2 for each variable under investigation with the exception of number of hours worked per week. More specifically, after age supervisory status, facility, and job tenure had all been entered

Table 11. Hierarchical Multiple Regression Analyses: Relationship Between Job Tenure and Hierarchical Career Plateauing Measure.

Dependent Variable	Independent Variable	Standardized Regression Weights Step 1	Step 2	Step 3
Social Reward Satisfaction	Age	.12**	.14**	.16***
	Supervisor	-.06	-.06	-.03
	Facility	.00	.00	-.01
	Job Tenure		-.04	.01
	Hierarchical CP			-.20***
	R^2 at each step:	.020	.021	.056
	R^2 change:		.001	.035***
	Total Multiple R:	.237		F = 8.40***
Intrinsic Reward Satisfaction	Age	.05	.07+	.13***
	Supervisor	-.16***	-.16***	-.10**
	Facility	.05	.05	.04
	Job Tenure		-.05	.06
	Hierarchical CP			-.44***
	R^2 at each step:	.034	.036	.204
	R^2 change:		.002	.168***
	Total Multiple R:	.451		F = 36.17***
Pay Satisfaction	Age	.03	.03	.08*
	Supervisor	-.24***	-.22***	-.17***
	Facility	.01	.01	.00
	Job Tenure		-.01	.09*
	Hierarchical CP			-.37***
	R^2 at each step:	.053	.053	.173
	R^2 change:		.000	.121***
	Total Multiple R:	.416		F = 29.58***
Promotion Satisfaction	Age	-.06+	-.01	.08**
	Supervisor	-.19***	-.20***	-.09***
	Facility	.08*	.07*	.05+
	Job Tenure		-.13**	.06+
	Hierarchical CP			-.71***
	R^2 at each step:	.043	.056	.495
	R^2 change:		.013**	.439***
	Total Multiple R:	.704		F = 138.38***
Overall Job Satisfaction	Age	.06+	.09*	.17***
	Supervisor	-.22***	-.22***	-.14***
	Facility	.05	.05	.03
	Job Tenure		-.08+	.07*
	Hierarchical CP			-.58***
	R^2 at each step:	.058	.063	.354
	R^2 change:		.005+	.291***
	Total Multiple R:	.595		F = 77.25***

+ $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$

Table 11. (continued)

Dependent Variable	Independent Variable	Standardized Regression Weights Step 1	Step 2	Step 3
Organizational Commitment	Age	.154**	.15***	.22***
	Supervisor	-.21***	-.21***	-.13***
	Facility	.09*	.09*	.08*
	Job Tenure		.00	.14***
	Hierarchical CP			-.51***
	R^2 at each step:	.088	.088	.313
	R^2 change:		.000	.225***
	Total Multiple R:	.560		F = 64.32***
Number of Hours/ Week Worked	Age	.06	.01	.02
	Supervisor	-.22***	-.22***	-.21***
	Facility	-.01	-.01	-.01
	Job Tenure		.11**	.12**
	Hierarchical CP			-.06
	R^2 at each step:	.056	.065	.069
	R^2 change:		.010***	.004
	Total Multiple R:	.262		F = 10.19***
Employee Health Concerns	Age	-.11***	-.16***	-.18***
	Supervisor	-.08*	-.07+	-.09*
	Facility	-.04	-.03	-.03
	Job Tenure		.13**	.09*
	Hierarchical CP			.16***
	R^2 at each step:	.018	.032	.054
	R^2 change:		.014**	.022***
	Total Multiple R:	.233		F = 8.10***
Intention to Quit	Age	-.21***	-.20***	-.25***
	Supervisor	.17***	.17***	.10**
	Facility	-.08*	-.08*	-.06*
	Job Tenure		-.04	-.16***
	Hierarchical CP			.45***
	R^2 at each step:	.094	.095	.270
	R^2 change:		.001	.175***
	Total Multiple R:	.519		F = 51.88***

+ $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$

into the equation, hierarchical career plateauing was significantly related to social reward satisfaction (change in $R^2 = .035$, $p < .01$), intrinsic reward satisfaction (change in $R^2 = .168$, $p < .01$), pay satisfaction (change in $R^2 = .121$, $p < .01$), promotion satisfaction (change in $R^2 = .439$, $p < .01$), and overall job satisfaction (change in $R^2 = .291$, $p < .01$). Hierarchical career plateauing was also significantly related to organizational commitment (change in $R^2 = .225$, $p < .01$), employee health concerns (change in $R^2 = .022$, $p < .01$), and intention to quit (change in $R^2 = .175$, $p < .01$). For social reward satisfaction, intrinsic reward satisfaction, pay satisfaction, promotion satisfaction, overall job satisfaction, and organizational commitment the standardized regression weight was negative, suggesting negative relationships between hierarchical career plateauing and these six variables. The standardized regression weight for employee health concerns and intention to quit were positive, suggesting positive relationships between hierarchical career plateauing and these two variables. With the exception of one variable (i.e., number of hours worked per week), hypothesis 7A was supported.

As shown in Table 12, job content career plateauing added a significant change in R^2 for each variable under investigation with the exception of employee health concerns. More specifically, after age, supervisory status, facility, and job tenure had all been entered into the equation, job content plateauing was significantly related to social reward satisfaction (change in $R^2 = .043$, $p < .01$), intrinsic reward satisfaction (change in $R^2 = .355$, $p < .01$), pay satisfaction (change in $R^2 = .068$, $p < .01$), promotion satisfaction (change in $R^2 = .163$, $p < .01$), and overall job satisfaction (change in $R^2 = .258$, $p < .01$). Job content career plateauing was also significantly related to organizational commitment (change in $R^2 = .169$, $p < .01$), number of hours worked per week (change in $R^2 = .010$, $p < .01$), and intention to quit (change in $R^2 = .192$, $p < .01$). As in the case of hierarchical career plateauing, the standardized regression weight was negative for social reward satisfaction, intrinsic reward satisfaction, pay satisfaction, promotion satisfaction, overall job satisfaction, and organizational commitment. In addition, the standardized regression weight for number of hours worked per week was also negative. These findings suggests negative relationships between job content

Table 12. Hierarchical Multiple Regression Analyses: Relationship Between Job Tenure and Job Content Career Plateauing Measure.

Dependent Variable	Independent Variable	Standardized Regression Weights Step 1	Step 2	Step 3
Social Reward Satisfaction	Age	.12**	.13**	.14***
	Supervisor	-.06	-.06	.00
	Facility	.00	.00	.00
	Job Tenure		-.04	-.03
	Job Content CP			-.22***
	R^2 at each step:	.019	.020	.064
	R^2 change:		.001	.043***
	Total Multiple R:	.252		F = 9.58***
Intrinsic Reward Satisfaction	Age	.04	.07	.07*
	Supervisor	-.16***	-.16***	.00
	Facility	.05	.05	.03
	Job Tenure		-.05	-.03
	Job Content CP			-.62***
	R^2 at each step:	.033	.036	.390
	R^2 change:		.002	.355***
	Total Multiple R:	.625		F = 90.41***
Pay Satisfaction	Age	.03	.03	.03
	Supervisor	-.22***	-.22***	-.16***
	Facility	.01	.01	.00
	Job Tenure		-.01	.00
	Job Content CP			-.27***
	R^2 at each step:	.053	.053	.121
	R^2 change:		.000	.068***
	Total Multiple R:	.348		F = 19.39***
Promotion Satisfaction	Age	-.06+	-.01	-.01
	Supervisor	-.19***	-.20***	-.09*
	Facility	.08*	.07*	.06+
	Job Tenure		-.13**	-.11**
	Job Content CP			-.42***
	R^2 at each step:	.043	.056	.219
	R^2 change:		.013**	.163***
	Total Multiple R:	.468		F = 39.56***
Overall Job Satisfaction	Age	.06	.09*	.09**
	Supervisor	-.22***	-.22***	-.08*
	Facility	.05	.05	.04
	Job Tenure		-.08+	-.05
	Job Content CP			-.53***
	R^2 at each step:	.057	.062	.320
	R^2 change:		.005+	.258***
	Total Multiple R:	.566		F = 66.47***

+ $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$

Table 12. (continued)

Dependent Variable	Independent Variable	Standardized Regression Weights Step 1	Step 2	Step 3
Organizational Commitment	Age	.15***	.15***	.15***
	Supervisor	-.21***	-.21***	-.10**
	Facility	.10***	.10**	.08*
	Job Tenure		.00	.02
	Job Content CP			-.43***
	R^2 at each step:	.086	.086	.255
	R^2 change:		.000	.169***
	Total Multiple R:	.505		F = 48.34***
Number of Hours/ Week Worked	Age	.06	.01	.02
	Supervisor	-.22***	-.22***	-.19***
	Facility	-.01	-.01	-.01
	Job Tenure		.11**	.11**
	Job Content CP			-.11**
	R^2 at each step:	.056	.065	.075
	R^2 change:		.010**	.010**
	Total Multiple R:	.275		F = 11.29***
Employee Health Concerns	Age	-.11**	-.16***	-.16***
	Supervisor	-.08*	-.07+	-.07+
	Facility	-.04	-.03	-.03
	Job Tenure		.13**	.13**
	Job Content CP			.01
	R^2 at each step:	.018	.032	.032
	R^2 change:		.014**	.000
	Total Multiple R:	.178		F = 4.60***
Intention to Quit	Age	-.21***	-.20***	-.20***
	Supervisor	.17***	.17***	.05
	Facility	-.08*	-.08*	-.07*
	Job Tenure		-.04	-.06+
	Job Content CP			.45***
	R^2 at each step:	.094	.095	.287
	R^2 change:		.001	.192***
	Total Multiple R:	.536		F = 56.63***

+ $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$

career plateauing and these seven variables. The standardized regression weight for intention to quit were positive, suggesting a positive relationship between job content career plateauing and intention to quit. With the exception of one variable (i.e., employee health concerns), hypothesis 7B was supported.

Potential Moderators of the Relationships between Career Plateauing and Job Attitudes. While hypotheses 1 through 6 suggest that there is a relationship between hierarchical and job content career plateauing and a number of job attitudes, there is no doubt that not everyone will react to either type of plateauing in the same manner. Hypotheses 8 through 14 investigated several factors that might serve to moderate the relationship between career plateauing and job attitudes. The factors under investigation in this study were job tenure, promotion aspiration, life satisfaction, participation in employee development opportunities, alternative job opportunities, job content career plateauing (for the relationship between hierarchical career plateauing and job attitudes), and employee age.

Hypotheses 8 through 14 were investigated using hierarchical multiple regression analysis. Age, supervisory status, and facility were entered at step one in order to control for these variables. This is true for every case except where age was examined as a potential moderator; where age was investigated as a potential moderator, age was not entered until step two. The potential moderator was entered in step two followed by hierarchical or job content career plateauing in step three. The interaction term (i.e., career plateauing multiplied by the proposed moderating variable) was entered in step four. Significance of this interaction term as noted by the significance of the change in R^2 indicates a moderating effect (James & Brett, 1984).

Tables 13 through 25 show the results of the analyses used to investigate hypotheses 8 through 14. The standardized beta weights as well as the change in R^2 are reported for each step illustrated on the table. An indication is also given about the significance level of the change in R^2. Graphs are provided to clarify the nature of the significant interaction effects

($p < .05$). These graphs were created using median splits to dichotomize the variables into "high" and "low" groups.

Job Tenure as a Moderator.

Hypothesis 8a: Job tenure will moderate the relationship between hierarchical career plateauing and outcome variables (facets of job satisfaction, organizational commitment, number of hours worked per week, job related health concerns, intention to quit).

Hypothesis 8b: Job tenure will moderate the relationship between job content career plateauing and outcome variables (facets of job satisfaction, organizational commitment, number of hours worked per week, job related health concerns, intention to quit).

The first potential moderating variable under investigation was job tenure. As illustrated in Table 13, the change in R^2 for the interaction term (i.e., job tenure multiplied by hierarchical career plateauing) was significant for one of the outcome variables, and marginally significant for three other variables. The interaction term was significant for intent to quit ($p < .05$), and slightly significant for intrinsic reward satisfaction, pay satisfaction, and number of hours worked per week ($p < .10$).

The standardized beta weight was negative for intent to quit (-.38) suggesting that if we hold career plateauing constant, as job tenure increases, employee intent to quit tends to decrease. Another way to explain these findings would be to say that employees who perceive themselves to be hierarchically plateaued and who are in their current jobs for longer periods of time will be less likely to leave the organization. Figure 18 illustrates this relationship. It is apparent from this illustration that employees reporting lower levels of career plateauing tend to report similar intentions to quit, regardless of how long they have been on the job. Employees perceiving higher levels of hierarchical career plateauing will report lower intent to quit if they have been in their jobs for longer periods of time. They will be more likely to quit if they report low job tenure.

Table 13. Hierarchical Multiple Regression Analyses: Job Tenure as a Potential Moderator Between Hierarchical Career Plateauing and Job Attitudes.

Dependent Variable	Independent Variable	Standardized Regression Weights Step 1	Step 2	Step 3	Step 4
Social Reward Satisfaction	Age	.12**	.14**	.16***	.16***
	Supervisor	-.06	-.06	-.03	-.03
	Facility	.00	.00	-.01	-.01
	Job Tenure		-.04	.01	-.10
	Hierarchical CP			-.20***	-.22***
	Interaction Term				.12
	R^2 at each step:	.020	.021	.056	.057
	R^2 change:		.001	.035***	.001
	Total Multiple R:	.238			F = 7.07***
Intrinsic Reward Satisfaction	Age	.05	.07+	.13***	.13***
	Supervisor	-.16***	-.16***	-.10**	-.11**
	Facility	.05	.05	.04	.04
	Job Tenure		-.05	.06	-.24
	Hierarchical CP			-.44***	-.49***
	Interaction Term				.33+
	R^2 at each step:	.034	.036	.204	.208
	R^2 change:		.002	.168***	.004+
	Total Multiple R:	.456			F = 30.88***
Pay Satisfaction	Age	.03	.03	.08*	.08*
	Supervisor	-.22***	-.22***	-.17***	-.17***
	Facility	.01	.01	.00	.00
	Job Tenure		-.01	.09**	.37*
	Hierarchical CP			-.37***	-.32***
	Interaction Term				-.31+
	R^2 at each step:	.053	.053	.173	.177
	R^2 change:		.000	.121***	.004+
	Total Multiple R:	.421			F = 25.25***
Promotion Satisfaction	Age	-.06+	-.01	.08**	.08**
	Supervisor	-.19***	-.20***	-.09**	-.09***
	Facility	.08*	.07*	.05+	.05+
	Job Tenure		-.13**	.06+	.06
	Hierarchical CP			-.71***	-.71***
	Interaction Term				.00
	R^2 at each step:	.043	.056	.495	.495
	R^2 change:		.013**	.439***	.000
	Total Multiple R:	.704			F = 115.15***

+ $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$

Table 13. (continued)

Dependent Variable	Independent Variable	Standardized Regression Weights Step 1	Step 2	Step 3	Step 4
Overall Job Satisfaction	Age	.06+	.09*	.17***	.17***
	Supervisor	-.22***	-.22***	-.14***	-.14***
	Facility	.05	.05	.03	.03
	Job Tenure		-.08+	.07*	.05
	Hierarchical CP			-.58***	-.58***
	Interaction Term				.02
	R^2 at each step:	.058	.063	.354	.354
	R^2 change:		.005+	.291***	.000
	Total Multiple R:	.595			F = 64.29***
Organizational Commitment	Age	.15***	.15***	.22***	.22***
	Supervisor	-.21***	-.21***	-.13***	-.14***
	Facility	.15**	.09*	.08*	.08*
	Job Tenure		.00	.14***	.02
	Hierarchical CP			-.51***	-.53***
	Interaction Term				.13
	R^2 at each step:	.088	.088	.313	.314
	R^2 change:		.000	.225***	.001
	Total Multiple R:	.560			F = 53.68***
Number of Hours/ Week Worked	Age	.06	.01	.02	.02
	Supervisor	-.22***	-.22***	-.21***	-.21***
	Facility	-.01	-.01	-.01	-.01
	Job Tenure		.11**	.12**	-.19
	Hierarchical CP			-.06	-.12*
	Interaction Term				.34+
	R^2 at each step:	.056	.065	.069	.073
	R^2 change:		.010**	.004	.004+
	Total Multiple R:	.270			F = 9.07***
Employee Health Concerns	Age	-.11**	-.164***	-.18***	-.18***
	Supervisor	-.08*	-.072*	-.09*	-.09*
	Facility	-.04	-.034	-.03	-.03
	Job Tenure		.129***	.09*	.14
	Hierarchical CP			.16***	.17***
	Interaction Term				-.05
	R^2 at each step:	.018	.032	.054	.055
	R^2 change:		.014**	.022***	.000
	Total Multiple R:	.234			F = 6.75***
Intention to Quit	Age	-.21***	-.20***	-.25***	-.26***
	Supervisor	.17***	.17***	.10**	.11**
	Facility	-.08*	-.08*	-.06*	-.07**
	Job Tenure		-.04	-.16***	.20
	Hierarchical CP			.45***	.51***
	Interaction Term				-.38*
	R^2 at each step:	.094	.095	.270	.275
	R^2 change:		.001	.175***	.006*
	Total Multiple R:	.525			F = 44.40***

+ $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$

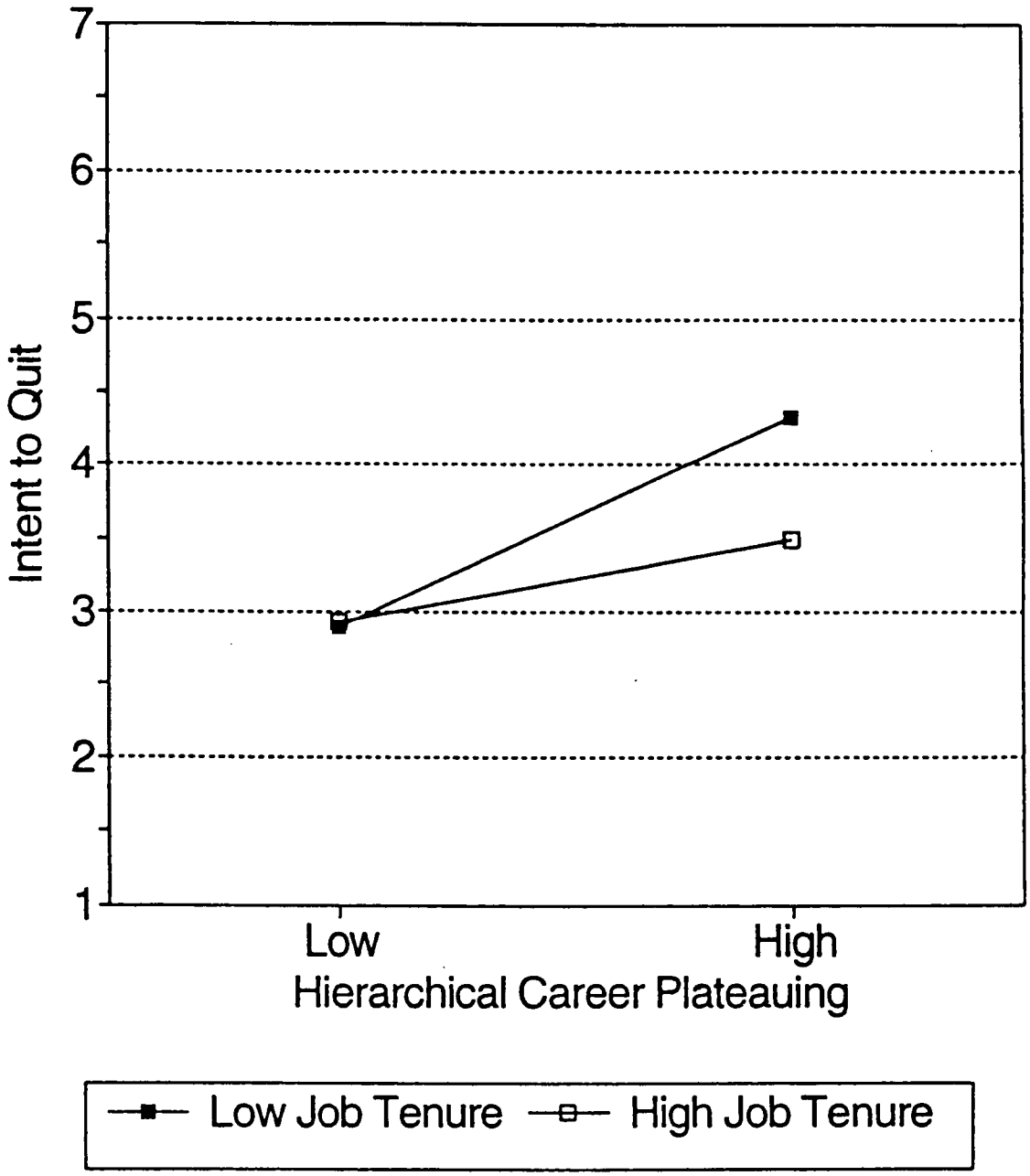


Figure 18. The Relationship Between Hierarchical Career Plateauing and Intent to Quit as Moderated by Job Tenure.

Of the variables that had marginal significance, the standardized beta weights were positive for intrinsic reward satisfaction (.33) and number of hours worked (.34) suggesting that for a given level of hierarchical career plateauing, as job tenure increases, there is an increase in intrinsic reward satisfaction and in the number of hours worked per week. The standardized beta weight was negative for pay satisfaction (-.31) suggesting that if we hold career plateauing constant, as job tenure increases, pay satisfaction decreases. Another way to explain these findings would be to say that employees who perceive themselves to be at a hierarchical plateau and who are in their current jobs for longer periods of time will report slightly greater levels of intrinsic reward satisfaction, will work more hours per week, and will tend to be less satisfied with their pay. These three relationships are not illustrated because the findings were marginal ($p < .10$). Altogether, the findings show limited support for hypothesis 8A because the significance level for three of the four significant results was greater than .05.

The results of hypothesis 8B are illustrated in Table 14. According to these results, the change in R^2 for the interaction term (i.e., job tenure multiplied by job content career plateauing) was significant for three of the attitudinal variables and marginally significant for one. The interaction term was significant for pay satisfaction, promotion satisfaction, and intent to quit ($p < .05$), and slightly significant for overall job satisfaction ($p < .10$).

The standardized beta weights were positive for pay satisfaction (.27) and promotion satisfaction (.21) suggesting that for a given level of job content career plateauing, as job tenure increases, there is an increase in pay and promotion satisfaction. The standardized beta weight for intent to quit was negative (-.36) suggesting that holding career plateauing constant, as job tenure increases, intent to quit decreases. In other words, employees who perceived themselves to be job content plateaued and who were in their current jobs for longer periods of time reported greater levels of pay and promotion satisfaction, and a lower intent to quit the organization than employees who had been employed for a shorter length of time.

Table 14. Hierarchical Multiple Regression Analyses: Job Tenure as a Potential Moderator Between Job Content Career Plateauing and Job Attitudes.

Dependent Variable	Independent Variable	Standardized Regression Weights Step 1	Step 2	Step 3	Step 4
Social Reward Satisfaction	Age	.12**	.13**	.14**	.14**
	Supervisor	-.06	-.06	.00	.00
	Facility	.00	.00	.00	.00
	Job Tenure		-.04	-.03	-.01
	Job Content CP			-.22***	-.21***
	Interaction Term				-.03
	R^2 at each step:	.019	.020	.064	.064
	R^2 change:		.001	.043***	.000
	Total Multiple R:	.252			F = 7.98***
Intrinsic Reward Satisfaction	Age	.04	.07	.07*	.07*
	Supervisor	-.16***	-.16***	.00	.00
	Facility	.05	.05	.03	.03
	Job Tenure		-.05	-.03	-.03
	Job Content CP			-.62***	-.62***
	Interaction Term				.00
	R^2 at each step:	.033	.036	.390	.390
	R^2 change:		.002	.355***	.000
	Total Multiple R:	.625			F = 75.24***
Pay Satisfaction	Age	.03	.03	.03	.03
	Supervisor	-.22***	-.22***	-.16***	-.16***
	Facility	.01	.01	.00	.01
	Job Tenure		-.01	.00	-.23*
	Job Content CP			-.27***	-.35***
	Interaction Term				.27*
	R^2 at each step:	.053	.053	.121	.128
	R^2 change:		.000	.068***	.008*
	Total Multiple R:	.358			F = 17.30***
Promotion Satisfaction	Age	-.06+	-.01	-.01	-.01
	Supervisor	-.19***	-.20***	-.09*	-.09**
	Facility	.08*	.07*	.06+	.07*
	Job Tenure		-.13**	-.11**	-.29**
	Job Content CP			-.42***	-.48***
	Interaction Term				.21*
	R^2 at each step:	.043	.056	.219	.224
	R^2 change:		.013**	.163***	.005*
	Total Multiple R:	.473			F = 33.82***

+ $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$

Table 14. (continued)

Dependent Variable	Independent Variable	Standardized Regression Weights Step 1	Step 2	Step 3	Step 4
Overall Job Satisfaction	Age	.06	.09*	.09**	.09**
	Supervisor	-.22***	-.22***	-.08*	-.09**
	Facility	.05	.05	.04	.04
	Job Tenure		-.08+	-.05	-.21*
	Job Content CP			-.53***	-.58***
	Interaction Term				.18+
	R^2 at each step:	.057	.062	.320	.324
	R^2 change:		.005+	.258***	.004+
	Total Multiple R:	.595			F = 64.29***
Organizational Commitment	Age	.15***	.15***	.15***	.15***
	Supervisor	-.21***	-.21***	-.10**	-.10**
	Facility	.10**	.10**	.08*	.09**
	Job Tenure		.00	.02	-.04
	Job Content CP			-.43***	-.45***
	Interaction Term				.07
	R^2 at each step:	.086	.086	.255	.256
	R^2 change:		.000	.169***	.001
	Total Multiple R:	.506			F = 40.34***
Number of Hours/ Week Worked	Age	.06	.01	.02	.01
	Supervisor	-.22***	-.22***	-.19***	-.19***
	Facility	-.01	-.01	-.01	-.01
	Job Tenure		.11**	.11**	-.03
	Job Content CP			-.11**	-.16**
	Interaction Term				.16
	R^2 at each step:	.056	.065	.075	.078
	R^2 change:		.010**	.010**	.003
	Total Multiple R:	.280			F = 9.79***
Employee Health Concerns	Age	-.11**	-.16***	-.16***	-.16***
	Supervisor	-.08*	-.07+	-.07+	-.08*
	Facility	-.04	-.03	-.03	-.03
	Job Tenure		.13***	.13**	.05
	Job Content CP			.01	-.02
	Interaction Term				.09
	R^2 at each step:	.018	.032	.032	.033
	R^2 change:		.014**	.000	.001
	Total Multiple R:	.180			F = 3.94***
Intention to Quit	Age	-.21***	-.20***	-.20***	-.19***
	Supervisor	.17***	.17***	.05	.06+
	Facility	-.08*	-.08*	-.06*	-.08**
	Job Tenure		-.04	-.06+	.26**
	Job Content CP			.45***	.56***
	Interaction Term				-.36***
	R^2 at each step:	.094	.095	.287	.301
	R^2 change:		.001	.192***	.014***
	Total Multiple R:	.549			F = 50.33***

+ $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$

Figure 19 illustrates the relationship between job content plateauing and pay satisfaction as moderated by job tenure. Employees with high job tenure who perceive lower levels of job content plateauing report slightly higher levels of pay satisfaction than employees with low job tenure. When employees perceive themselves to be more plateaued in terms of job content, employees with greater job tenure still report higher levels of pay satisfaction than employees with low job tenure, but this difference increases slightly. In other words, employees with low job tenure tend to report lower levels of pay satisfaction than employees with higher job tenure, and this difference tends to increase slightly when employees perceive themselves to be job content plateaued.

The relationship between job content career plateauing and promotion satisfaction as moderated by job tenure is illustrated in Figure 20. This figure shows that employees with lower job tenure tend to report slightly higher levels of promotion satisfaction than employees with high job tenure when perceptions of job content plateauing are low. When perceptions of job content plateauing are high, this difference is reduced slightly, and employees with high and low job tenure report similar levels of promotion satisfaction. The levels of promotion satisfaction reported when employees perceive themselves to be job content plateaued is lower than the level of satisfaction reported at low job content career plateauing for employees with high and low job tenure.

Figure 21 illustrates the relationship between job content plateauing and intent to quit as moderated by job tenure. As is evident from this figure, employees with high and low job tenure report similar intent to quit when perceptions of job content plateauing are low. At higher levels of job content career plateauing, employees with low job tenure report greater intent to quit than employees with high job tenure.

The standardized beta weight was positive for overall job satisfaction (.18) suggesting that for a given level of job content career plateauing, as job tenure increases, there is also a slight increase in overall job satisfaction. This relationship is not illustrated because the findings were marginal. These findings demonstrate partial support for hypothesis 8B.

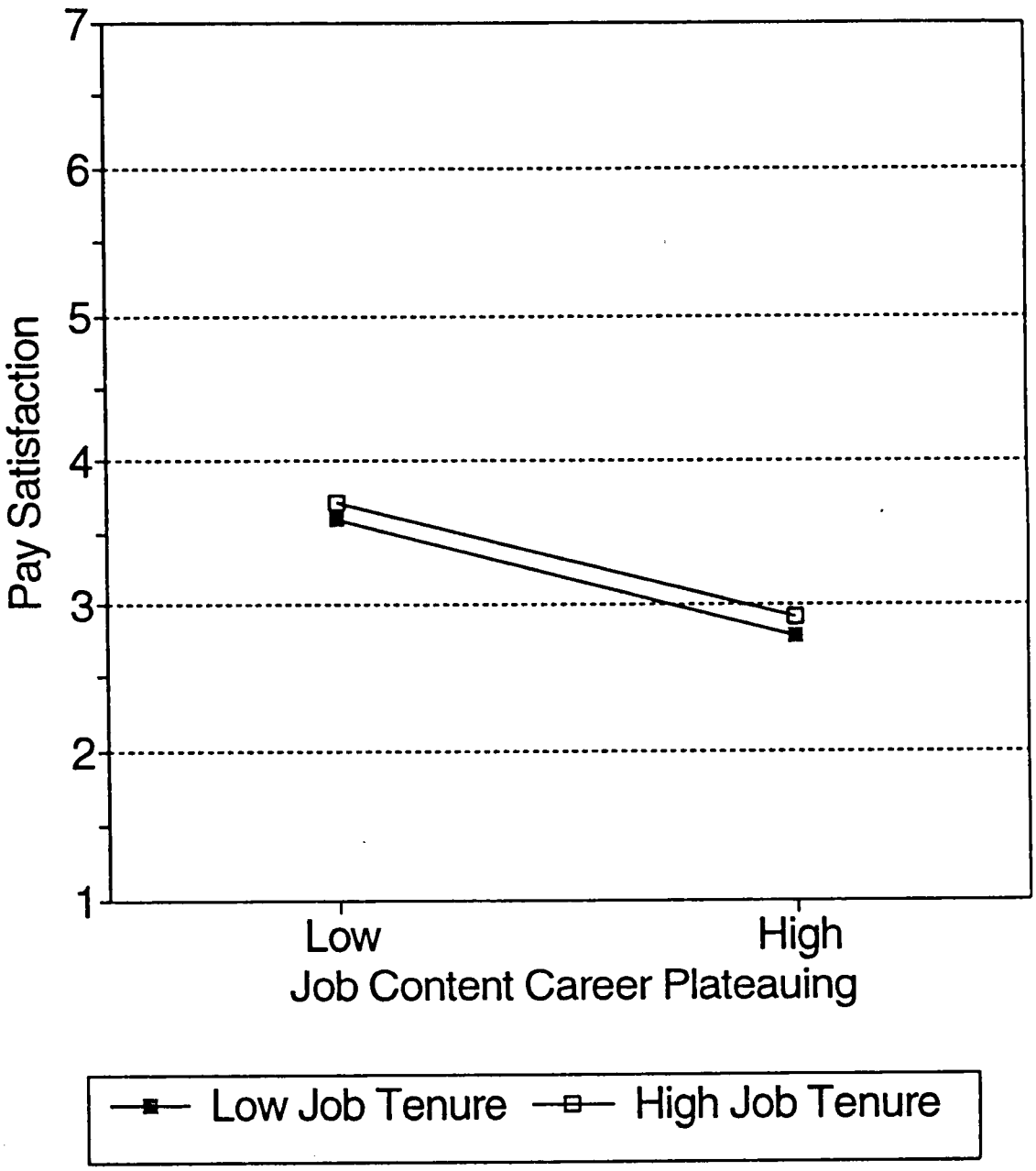


Figure 19. The Relationship Between Job Content Career Plateauing and Pay Satisfaction as Moderated by Job Tenure.

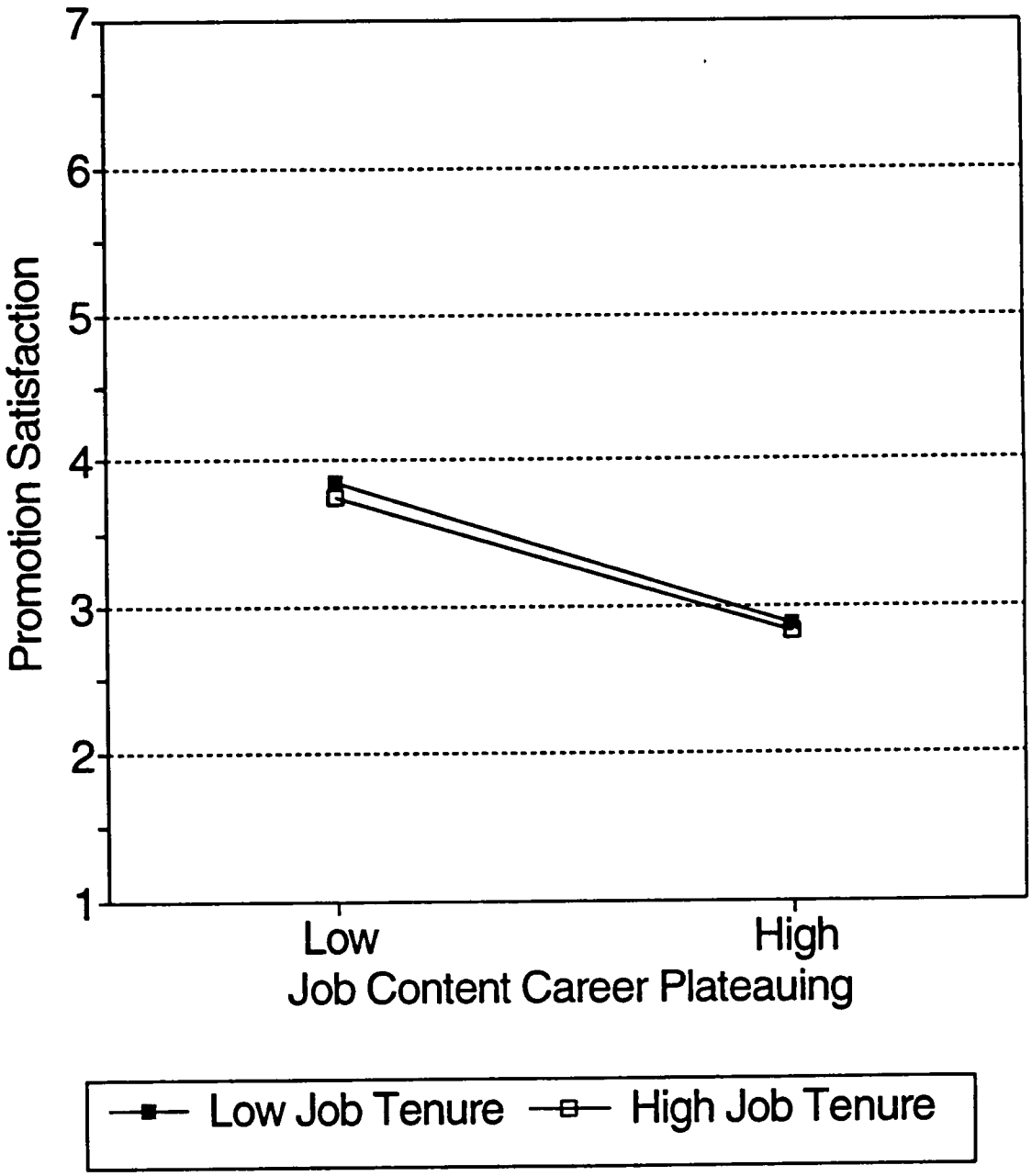


Figure 20. The Relationship Between Job Content Career Plateauing and Promotion Satisfaction as Moderated by Job Tenure.

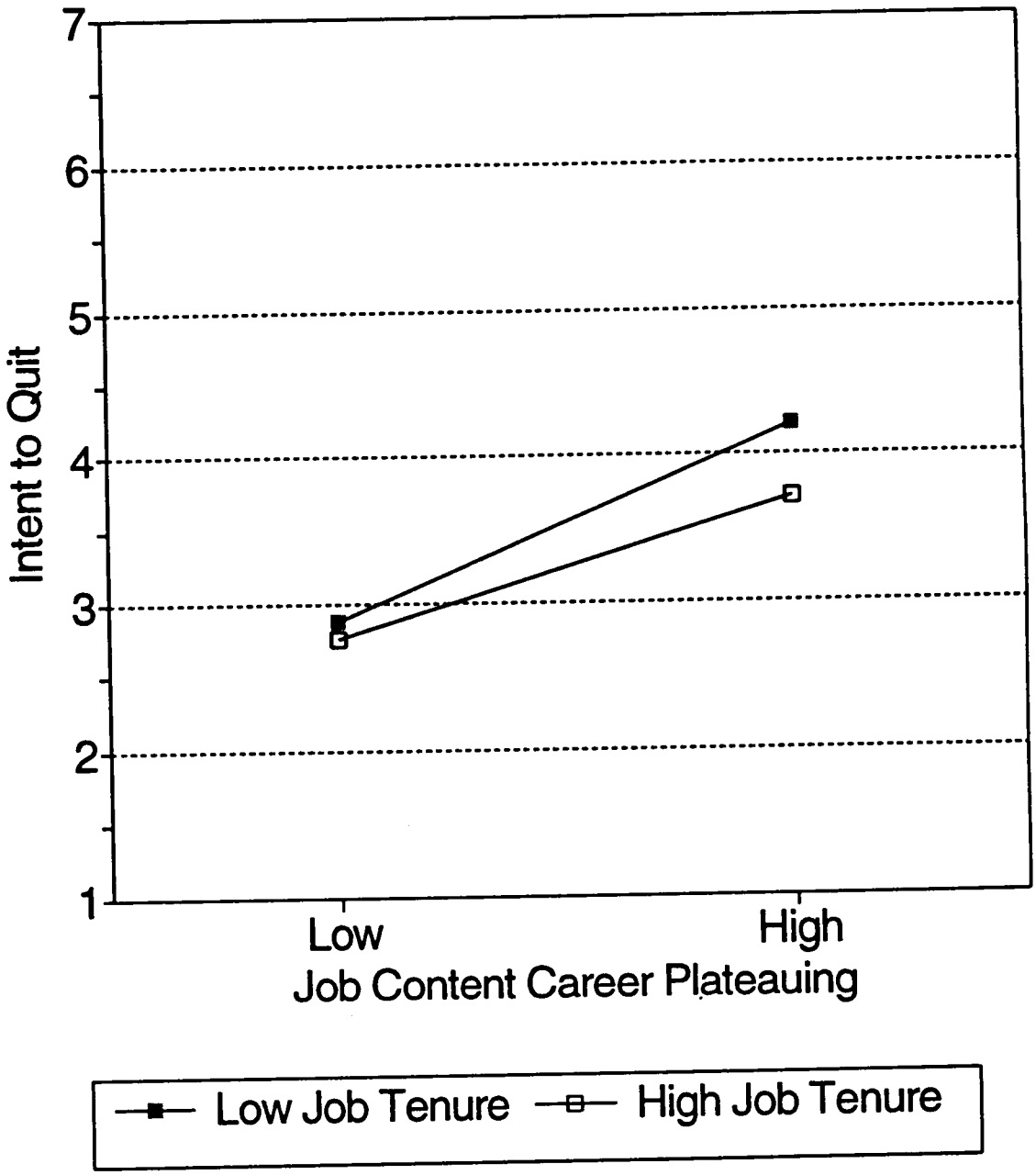


Figure 21. The Relationship Between Job Content Career Plateauing and Intent to Quit as Moderated by Job Tenure.

Promotion Aspiration as a Moderator.

Hypothesis 9a: Promotion aspiration will moderate the relationship between hierarchical career plateauing and outcome variables (facets of job satisfaction, organizational commitment, number of hours worked per week, job related health concerns, intention to quit).

Hypothesis 9b: Promotion aspiration will moderate the relationship between job content career plateauing and outcome variables (facets of job satisfaction, organizational commitment, number of hours worked per week, job related health concerns, intention to quit).

The second potential moderating variable under investigation was promotion aspiration. As illustrated in Table 15, the change in R^2 for the interaction term (i.e., promotion aspiration multiplied by hierarchical career plateauing) was significant for two of the outcome variables. The interaction term was significant for intrinsic reward satisfaction and intent to quit ($p < .05$).

The standardized beta weight was positive for intent to quit (.49) suggesting that if we hold career plateauing constant, as promotion aspiration increases, intent to quit also increases. In other words, employees who perceive themselves to be hierarchically plateaued and who have a greater desire to be promoted will report a greater intention of quitting the organization. This relationship is illustrated in Figure 22. As is evident from the graph, employees perceiving lower levels of career plateauing tend to report similar intentions of quitting the organization regardless of whether they have reported low or high levels of promotion aspiration. However, when employees report greater levels of career plateauing, those with lower promotion aspiration report a lower intent to quit. Employees with higher aspirations for promotion tend to report a greater intent to quit.

The standardized beta weight was negative for intrinsic reward satisfaction (-.38) suggesting that for a given level of hierarchical career plateauing, as promotion aspiration increases, there is an decrease in intrinsic reward satisfaction. In other words, employees who perceive themselves to be hierarchically plateaued and who have a great desire to be promoted will report lower levels of intrinsic reward satisfaction. This relationship is shown in Figure

Table 15. Hierarchical Multiple Regression Analyses: Promotion Aspiration as a Potential Moderator Between Hierarchical Career Plateauing and Job Attitudes.

Dependent Variable	Independent Variable	Standardized Regression Weights Step 1	Step 2	Step 3	Step 4
Social Reward Satisfaction	Age	.13***	.12***	.16***	.16***
	Supervisor	-.05	-.05	-.02	-.02
	Facility	.02	.01	.01	.01
	Promo Asp		-.05	-.08*	-.10
	Hierarchical CP			-.20***	-.22
	Interaction Term				-.03
	R^2 at each step:	.022	.024	.060	.060
	R^2 change:		.002	.035***	.000
	Total Multiple R:	.245			F = 9.06***
Intrinsic Reward Satisfaction	Age	.05	.02	.10**	.10**
	Supervisor	-.17***	-.17***	-.10**	-.10**
	Facility	.05	.05	.03	.03
	Promo Asp		-.15***	-.22***	.07
	Hierarchical CP			-.46***	-.16
	Interaction Term				-.38*
	R^2 at each step:	.035	.057	.247	.252
	R^2 change:		.022***	.190***	.005*
	Total Multiple R:	.502			F = 48.03***
Pay Satisfaction	Age	.04	-.01	.06+	.06+
	Supervisor	-.22***	-.22***	-.16***	-.16***
	Facility	.00	.00	-.02	-.02
	Promo Asp		-.22***	-.28***	-.42***
	Hierarchical CP			-.38***	-.52***
	Interaction Term				-.18
	R^2 at each step:	.050	.097	.230	.231
	R^2 change:		.047***	.133***	.001
	Total Multiple R:	.480			F = 42.72***
Promotion Satisfaction	Age	-.03	-.05	.08**	.08**
	Supervisor	-.21***	-.22***	-.11***	-.11***
	Facility	.07*	.06*	.04	.03
	Promo Asp		-.11**	-.21***	-.07
	Hierarchical CP			-.72***	-.57***
	Interaction Term				-.19
	R^2 at each step:	.050	.061	.532	.533
	R^2 change:		.010**	.471***	.001
	Total Multiple R:	.730			F = 162.40***
Overall Job Satisfaction	Age	.08*	.04	.15***	.15***
	Supervisor	-.22***	-.22***	-.13***	-.13***
	Facility	.06+	.05	.03	.03
	Promo Asp		-.18***	-.27**	-.15
	Hierarchical CP			-.60***	-.48***
	Interaction Term				-.15
	R^2 at each step:	.064	.093	.418	.419
	R^2 change:		.029***	.326***	.001
	Total Multiple R:	.647			F = 102.71***

+ $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$

Table 15. (continued)

Dependent Variable	Independent Variable	Standardized Regression Weights Step 1	Step 2	Step 3	Step 4
Organizational Commitment	Age	.15***	.17***	.25***	.25***
	Supervisor	-.22***	-.21***	-.14***	-.14***
	Facility	.13***	.13***	.11***	.11***
	Promo Asp		.06+	-.02	.16
	Hierarchical CP			-.48***	-.30*
	Interaction Term				.23
	R^2 at each step:	.100	.103	.310	.312
	R^2 change:		.003+	.207***	.002
	Total Multiple R:	.559			F = 64.51***
Number of Hours/ Week Worked	Age	.08*	.12***	.12***	.12***
	Supervisor	-.21***	-.21***	-.21***	-.21***
	Facility	-.05	-.05	-.05	-.05
	Promo Asp		.16***	.15***	.18
	Hierarchical CP			-.02	.01
	Interaction Term				-.04
	R^2 at each step:	.055	.078	.078	.078
	R^2 change:		.023***	.000	.000
	Total Multiple R:	.280			F = 11.88***
Employee Health Concerns	Age	-.14***	-.12***	-.16***	-.16***
	Supervisor	-.11**	-.11**	-.14***	-.14***
	Facility	-.02	-.02	-.01	-.01
	Promo Asp		.06+	.10**	-.12
	Hierarchical CP			.20***	-.01
	Interaction Term				.27
	R^2 at each step:	.029	.033	.070	.073
	R^2 change:		.004+	.038***	.003
	Total Multiple R:	.270			F = 11.21***
Intention to Quit	Age	-.23***	-.18***	-.26***	-.26***
	Supervisor	.16***	.17***	.10***	.09**
	Facility	-.08*	-.07*	-.06+	-.05+
	Promo Asp		.20***	.27***	-.11
	Hierarchical CP			.45***	.08
	Interaction Term				.49***
	R^2 at each step:	.096	.132	.320	.329
	R^2 change:		.037***	.188***	.009***
	Total Multiple R:	.574			F = 69.74***

+ $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$

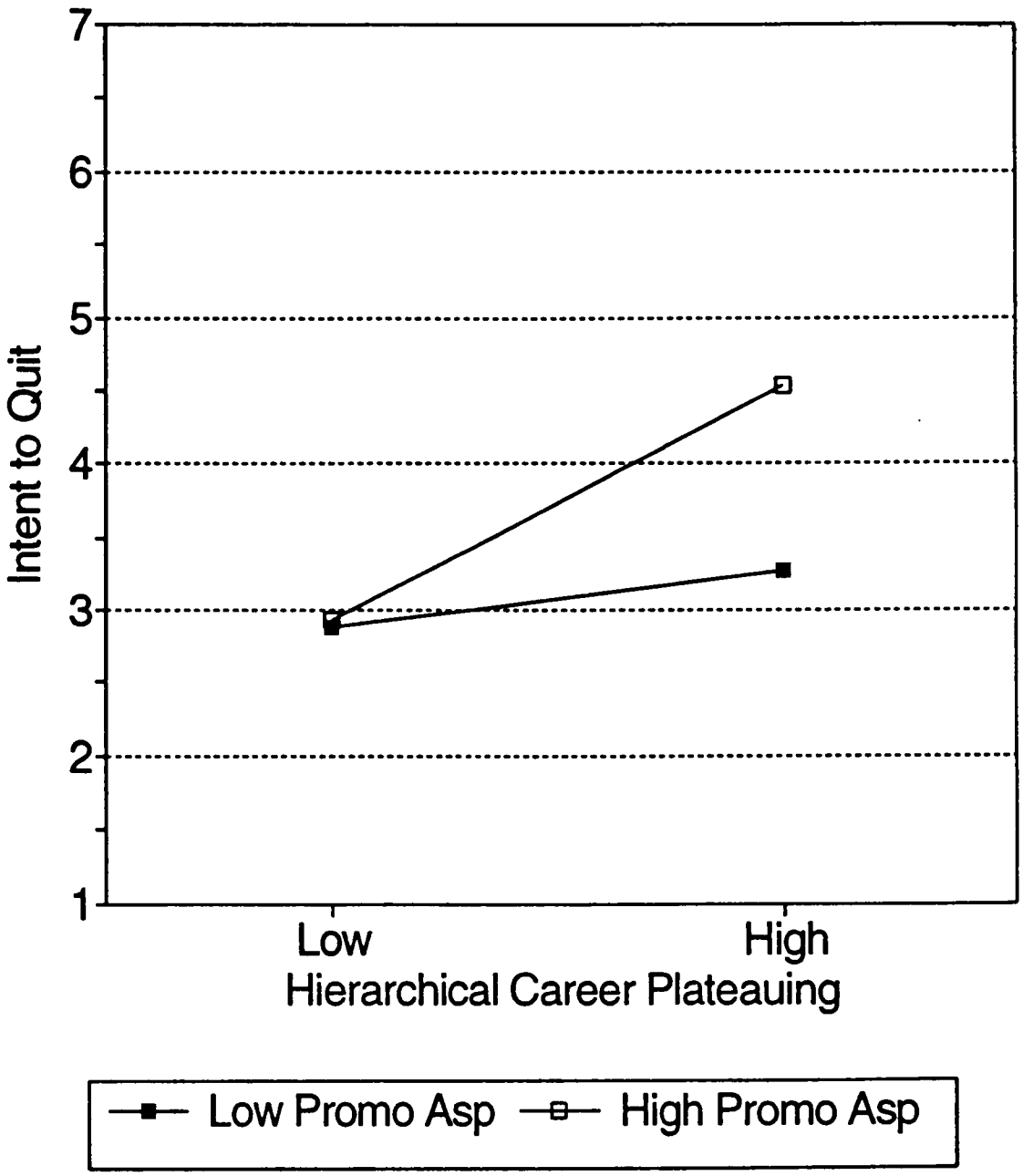


Figure 22. The Relationship Between Hierarchical Career Plateauing and Intent to Quit as Moderated by Promotion Aspiration.

23. As is evident, employees report similar levels of intrinsic satisfaction regardless of their aspirations for promotion when they do not perceive themselves to be hierarchically plateaued. At higher levels of plateauing, however, employees with higher aspiration for promotion tend to report lower levels of intrinsic reward satisfaction than individuals reporting lower aspiration for promotion. These findings demonstrate limited support for hypothesis 9A.

The results of hypothesis 9B are shown in Table 16. This hypothesis stated that promotion aspiration would moderate the relationship between job content career plateauing and outcome variables. According to the results, the change in R^2 for the interaction term (i.e., promotion aspiration multiplied by job content career plateauing) was significant for five of the nine outcome variables and marginally significant for one outcome variable. The interaction term was significant for intrinsic reward satisfaction, promotion satisfaction, overall job satisfaction, intent to quit, and job related health concerns ($p < .05$). The interaction term was marginally significant for organizational commitment ($p < .10$).

The standardized beta weights were positive for intent to quit (.31) and job-induced tension (.31). These results indicate that for a given level of job content career plateauing, as promotion aspiration increases, there is an increase in intent to quit and employee health concerns (job-induced tension). The standardized beta weights for intrinsic reward satisfaction (-.27), promotion satisfaction (-.69), and overall job satisfaction (-.39) were negative, suggesting that holding job content career plateauing constant, as promotion aspiration increases, intrinsic reward satisfaction, promotion satisfaction, and overall job satisfaction all decrease. In other words, employees who perceived themselves to be job content plateaued and who also reported greater aspiration for promotion reported greater intention to quit and job-induced tension, and lower levels of intrinsic reward satisfaction, promotion satisfaction, and overall job satisfaction.

Figure 24 illustrates the relationship between job content career plateauing and intrinsic reward satisfaction as moderated by promotion aspiration. It is evident from this figure that employees perceiving lower levels of job content plateauing report similar levels of

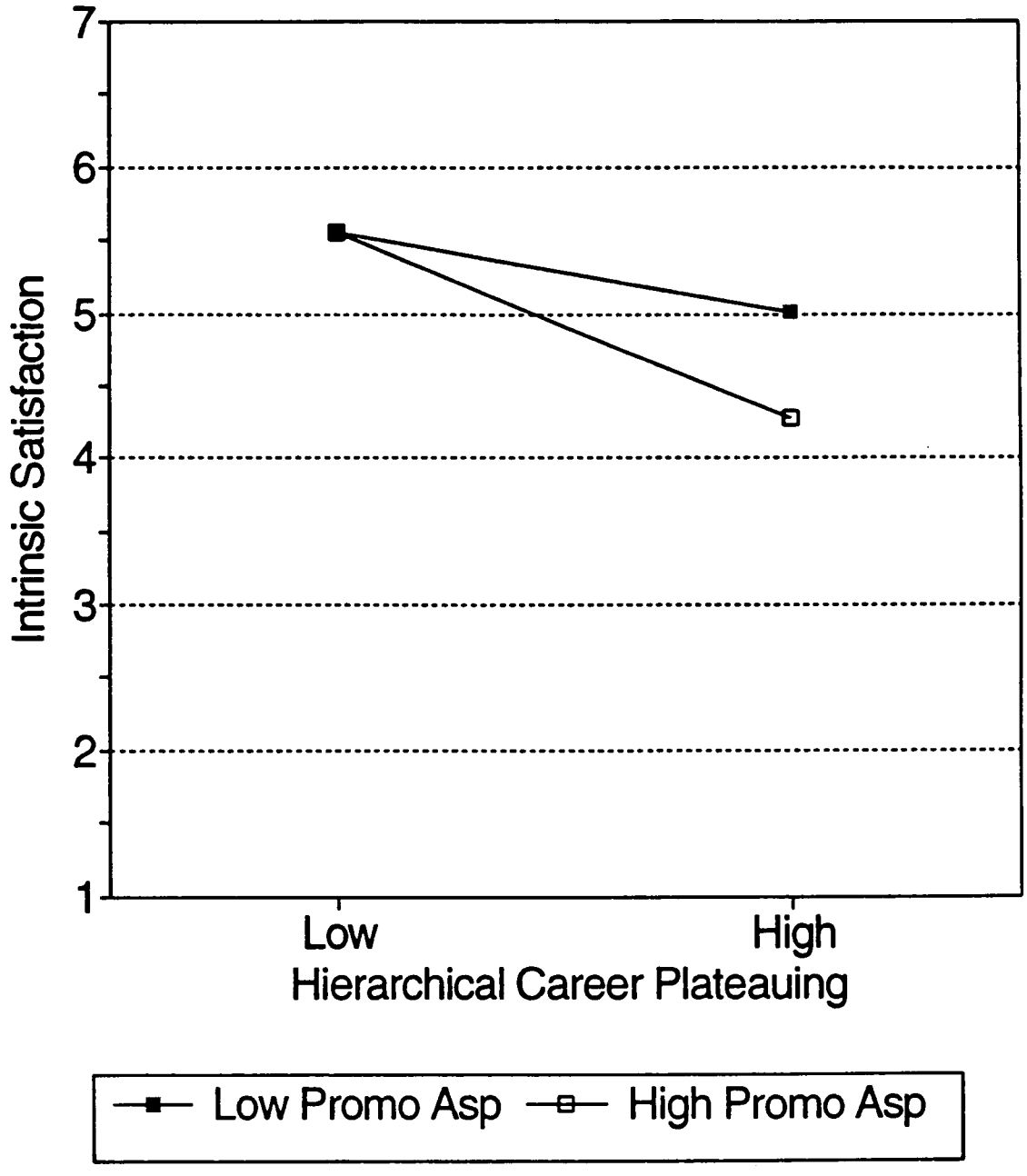


Figure 23. The Relationship Between Hierarchical Career Plateauing and Intrinsic Reward Satisfaction as Moderated by Promotion Aspiration.

Table 16. Hierarchical Multiple Regression Analyses: Promotion Aspiration as a Potential Moderator Between Job Content Career Plateauing and Job Attitudes.

Dependent Variable	Independent Variable	Standardized Regression Weights Step 1	Step 2	Step 3	Step 4
Social Reward Satisfaction	Age	.13***	.12***	.13***	.13***
	Supervisor	-.05	-.05	.00	.00
	Facility	.02	.01	.01	.01
	Promo Asp		-.05	-.03	-.03
	Job Content CP			-.20***	-.20
	Interaction Term				-.01
	R^2 at each step:	.022	.024	.063	.063
	R^2 change:		.002	.038***	.000
	Total Multiple R:	.250			F = 9.52***
Intrinsic Reward Satisfaction	Age	.05	.02	.02	.02
	Supervisor	-.17***	-.17***	-.01	-.02
	Facility	.05	.05	.03	.02
	Promo Asp		-.15***	-.11***	.05
	Job Content CP			-.60***	-.40***
	Interaction Term				-.27*
	R^2 at each step:	.035	.057	.394	.398
	R^2 change:		.022***	.338***	.004*
	Total Multiple R:	.631			F = 94.21***
Pay Satisfaction	Age	.04	-.01	-.01	-.01
	Supervisor	-.22***	-.22***	-.17***	-.17***
	Facility	.00	.00	-.01	-.01
	Promo Asp		-.22***	-.21***	-.09
	Job Content CP			-.21***	-.05
	Interaction Term				-.21
	R^2 at each step:	.050	.097	.138	.140
	R^2 change:		.047***	.041***	.002
	Total Multiple R:	.374			F = 23.19***
Promotion Satisfaction	Age	-.03	-.05	-.05	-.05
	Supervisor	-.21***	-.22***	-.11***	-.12***
	Facility	.07*	.06+	.05+	.04
	Promo Asp		-.11**	-.08*	.32***
	Job Content CP			-.40***	.12
	Interaction Term				-.69***
	R^2 at each step:	.050	.061	.207	.232
	R^2 change:		.010**	.146***	.025***
	Total Multiple R:	.482			F = 42.98***
Overall Job Satisfaction	Age	.08*	.04	.05	.05
	Supervisor	-.22***	-.22***	-.10***	-.10***
	Facility	.06+	.05	.04	.03
	Promo Asp		-.17***	-.14***	.08
	Job Content CP			-.49***	-.19*
	Interaction Term				-.39**
	R^2 at each step:	.064	.093	.314	.322
	R^2 change:		.029***	.221***	.008**
	Total Multiple R:	.568			F = 67.63***

+ $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$

Table 16. (continued)

Dependent Variable	Independent Variable	Standardized Regression Weights Step 1	Step 2	Step 3	Step 4
Organizational Commitment	Age	.15***	.17***	.17***	.17***
	Supervisor	-.22***	-.21***	-.11***	-.12***
	Facility	.13***	.13***	.12***	.11***
	Promo Asp		.06+	.08**	.21**
	Job Content CP			-.40***	-.23*
	Interaction Term				-.23+
	R^2 at each step:	.100	.103	.253	.255
	R^2 change:		.003+	.149***	.003+
	Total Multiple R:	.505			F = 48.74***
Number of Hours/ Week Worked	Age	.08*	.12***	.12***	.12***
	Supervisor	-.21***	-.21***	-.18***	-.17***
	Facility	-.05	-.05	-.05	-.05
	Promo Asp		.16***	.16***	.05
	Job Content CP			-.11***	-.27*
	Interaction Term				.20
	R^2 at each step:	.055	.078	.090	.092
	R^2 change:		.023***	.012***	.002
	Total Multiple R:	.304			F = 14.19***
Employee Health Concerns	Age	-.14***	-.12***	-.12***	-.12***
	Supervisor	-.11**	-.11**	-.10***	-.10**
	Facility	-.02	-.02	-.02	-.01
	Promo Asp		.06+	.07+	-.11
	Job Content CP			-.01	-.24*
	Interaction Term				.31*
	R^2 at each step:	.029	.033	.033	.038
	R^2 change:		.004+	.000	.005*
	Total Multiple R:	.195			F = 5.61***
Intention to Quit	Age	-.23*	-.18***	-.19***	-.19***
	Supervisor	.16***	.17***	.06*	.07*
	Facility	-.08*	-.07*	-.06*	-.06+
	Promo Asp		.20***	.17***	-.01
	Job Content CP			.41***	.17+
	Interaction Term				.31*
	R^2 at each step:	.096	.132	.287	.293
	R^2 change:		.037***	.155***	.005*
	Total Multiple R:	.541			F = 58.71***

+ $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$

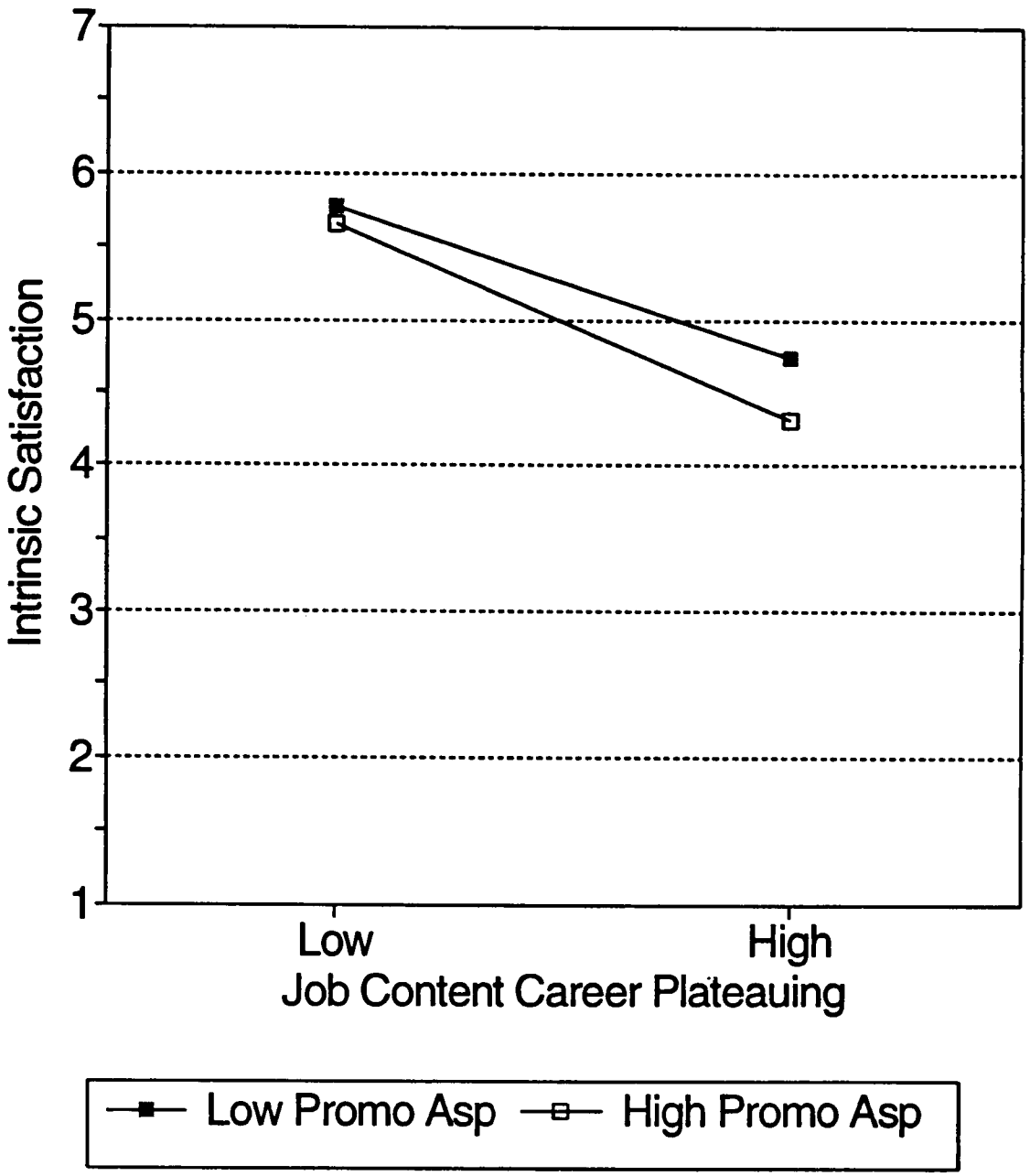


Figure 24. The Relationship Between Job Content Career Plateauing and Intrinsic Reward Satisfaction as Moderated by Promotion Aspiration.

intrinsic reward satisfaction, regardless of their reported promotion aspiration. For employees perceiving greater levels of job content plateauing, however, those employees reporting higher levels of promotion aspiration tend to report lower levels of intrinsic reward satisfaction then employees reporting lower levels of promotion aspiration.

The relationship between job content plateauing and promotion satisfaction as moderated by promotion aspiration is illustrated in Figure 25. This figure shows that employees reporting higher levels of promotion aspiration report higher levels of promotion satisfaction than employees with lower aspiration for promotion when perceptions of job content plateauing are low. However, when perceptions of job content plateauing increase, employees reporting higher levels of promotion aspiration report lower levels of promotion satisfaction then employees with lower aspirations for promotion.

Figure 26 illustrates the relationship between job content plateauing and overall job satisfaction as moderated by promotion aspiration. It is evident from this figure that employees perceiving lower levels of job content plateauing report similar levels of overall job satisfaction regardless of their promotion aspiration. However, with greater perceptions of job content career plateauing, employees reporting higher levels of promotion aspiration tend to report lower levels of overall job satisfaction than those employees with lower levels of promotion aspiration.

Figure 27 shows the relationship between job content career plateauing and employee health concerns (job-induced tension) as moderated by promotion aspiration. It is evident from this figure that employees perceiving lower levels of job content plateauing report similar levels of job-induced tension regardless of their aspiration for promotion. When perceptions of job content plateauing are higher, employees with lower aspiration for promotion report slightly lower levels of job-induced tension than employees who report lower levels of plateauing, while employees with higher aspiration for promotion report similar levels of job-induced tension as those employees who do not perceive themselves to be plateaued.

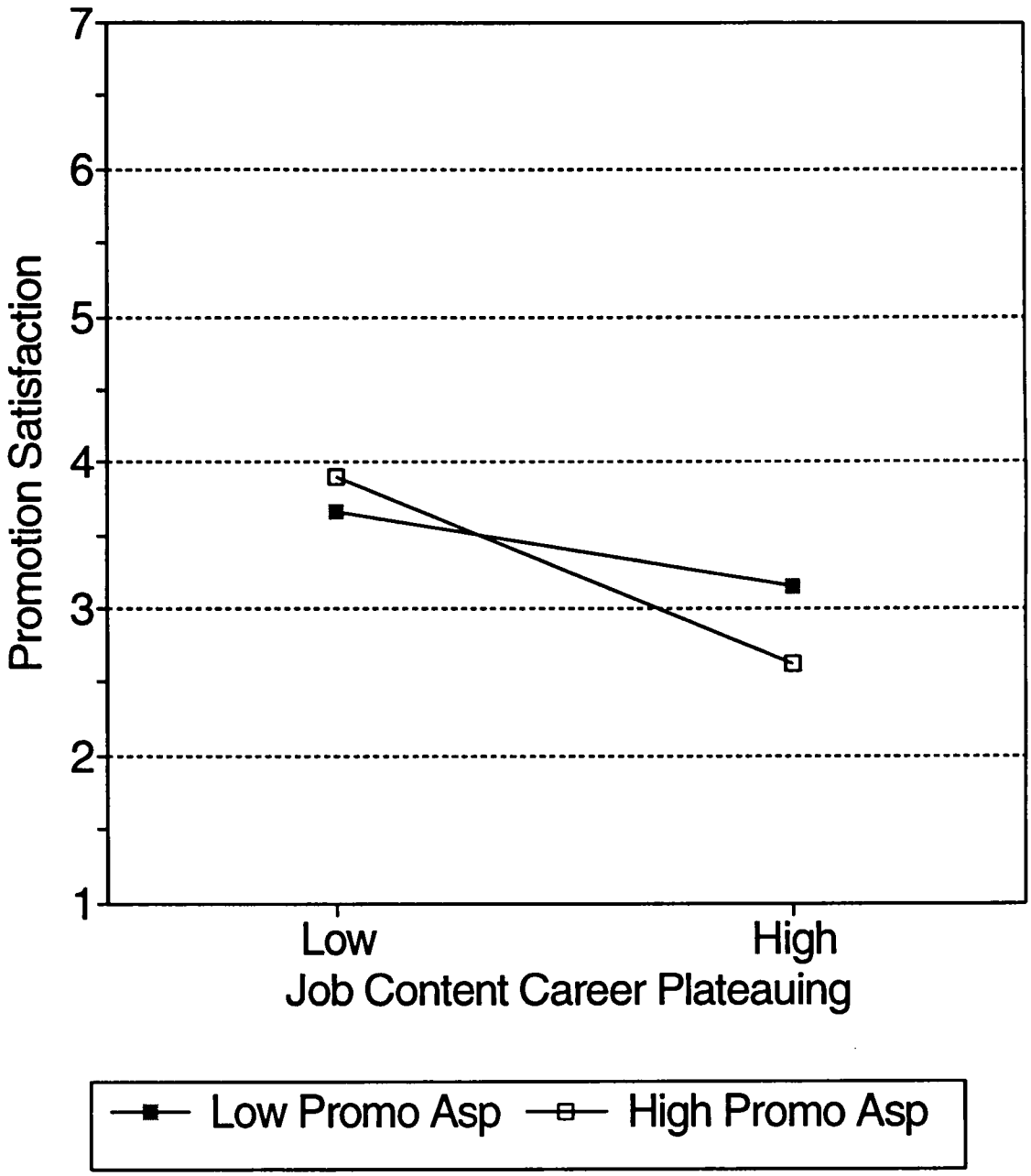


Figure 25. The Relationship Between Job Content Career Plateauing and Promotion Satisfaction as Moderated by Promotion Aspiration.

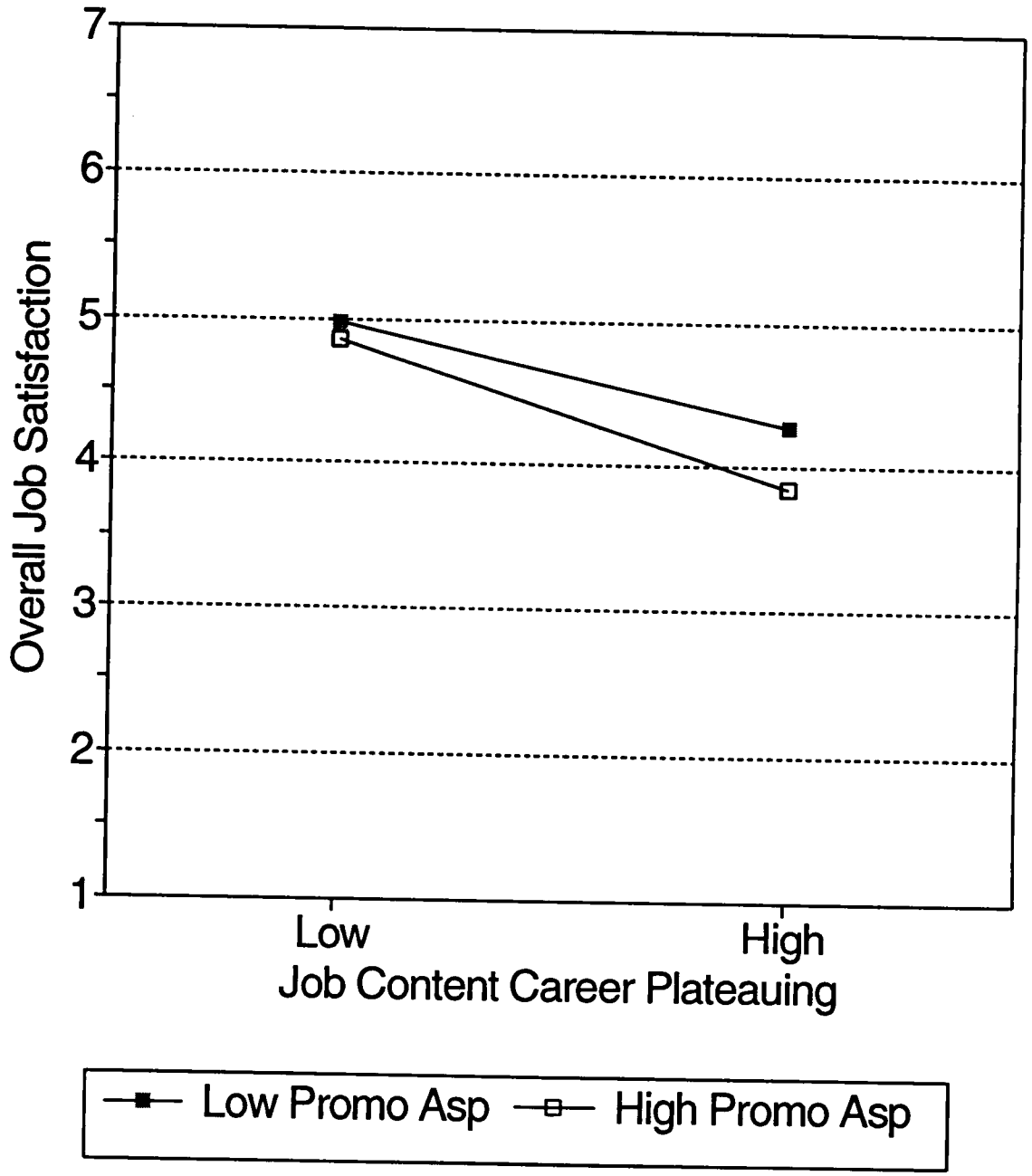


Figure 26. The Relationship Between Job Content Career Plateauing and Overall Job Satisfaction as Moderated by Promotion Aspiration.

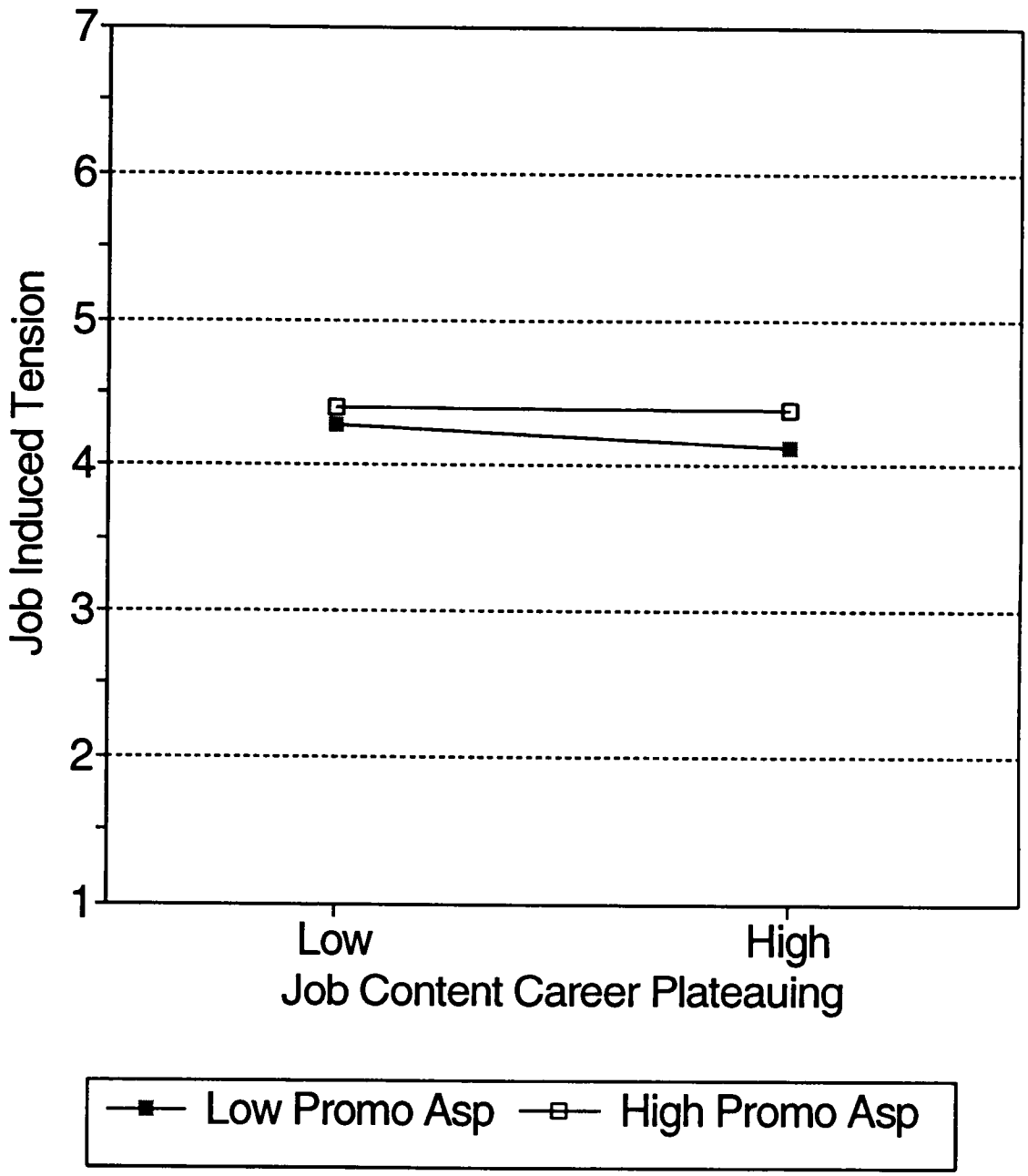


Figure 27. The Relationship Between Job Content Career Plateauing and Job-induced Tension as Moderated by Promotion Aspiration.

Figure 28 illustrates the relationship between job content career plateauing and intent to quit as moderated by promotion aspiration. This figure shows that at lower levels of job content plateauing, employees reporting higher levels of promotion aspiration report slightly greater intent to quit than employees with lower aspirations for promotion. At higher levels of job content plateauing, this difference is magnified, and employees with higher promotion aspiration report a greater intent to quit than employees with lower aspiration for promotion.

The standardized beta weight for organizational commitment (-.23) was also negative. While the significance level of this finding was marginal, the results suggest that at a given level of job content career plateauing, employees who reported higher levels of promotion aspiration also tended to report slightly lower levels of organizational commitment. The significance of this finding was marginal ($p < .10$), therefore the relationship is not illustrated. Since promotion aspiration was found to moderate the relationship between job content career plateauing and five (of nine) outcome variables, hypothesis 9B was partially supported.

Life Satisfaction as a Moderator.

Hypothesis 10a: Life satisfaction will moderate the relationship between hierarchical career plateauing and outcome variables (facets of job satisfaction, organizational commitment, number of hours worked per week, job related health concerns, intention to quit).

Hypothesis 10b Life satisfaction will moderate the relationship between job content career plateauing and outcome variables (facets of job satisfaction, organizational commitment, number of hours worked per week, job related health concerns, intention to quit).

The next potential moderating variable under investigation was life satisfaction. As illustrated in Table 17, the change in R^2 for the interaction term (i.e., life satisfaction multiplied by hierarchical career plateauing) was significant for one of the outcome variables. The interaction term was significant for pay satisfaction ($p < .05$). Both intent to quit and number of hours worked per week were marginally significant ($p < .10$).

The standardized beta weight for pay satisfaction (-.58) was negative indicating that if we hold career plateauing constant, as life satisfaction increases, pay satisfaction tends to

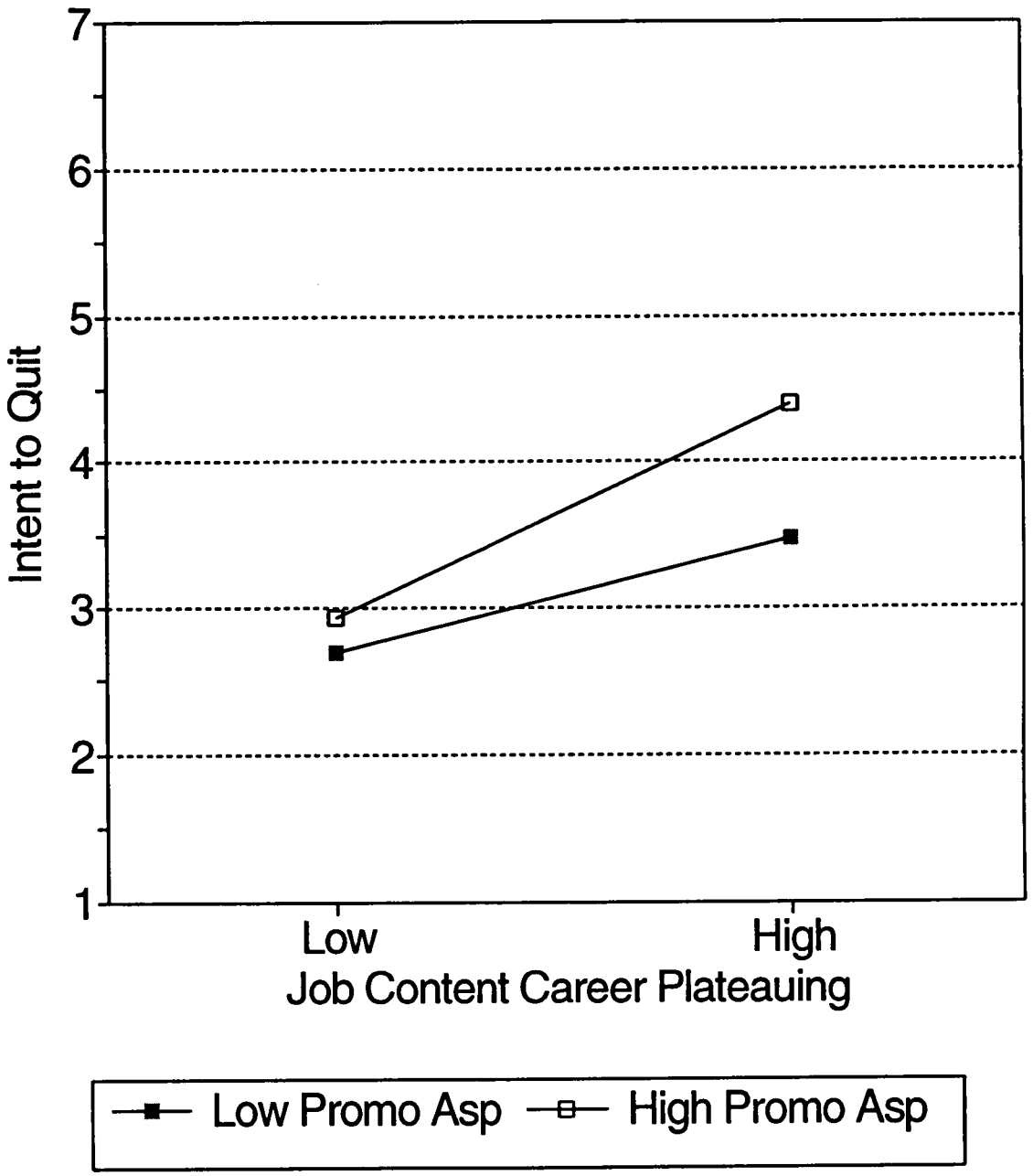


Figure 28. The Relationship Between Job Content Career Plateauing and Intent to Quit as Moderated by Promotion Aspiration.

Table 17. Hierarchical Multiple Regression Analyses: Life Satisfacton as a Potential Moderator Between Hierarchical Career Plateauing and Job Attitudes.

Dependent Variable	Independent Variable	Standardized Regression Weights Step 1	Step 2	Step 3	Step 4
Social Reward Satisfaction	Age	.13***	.13***	.17***	.17***
	Supervisor	-.05	-.05	-.02	-.02
	Facility	.02	.02	.02	.02
	Life Sat		.25***	.25***	.16
	Hierarchical CP			-.18***	-.32+
	Interaction Term				.17
	R^2 at each step:	.023	.085	.115	.116
	R^2 change:		.062***	.031***	.001
	Total Multiple R:	.341			F = 18.67***
Intrinsic Reward Satisfaction	Age	.05	.05	.14***	.14***
	Supervisor	-.16***	-.16***	-.09***	-.10**
	Facility	.05	.05	.04	.04
	Life Sat		.16***	.16***	.13
	Hierarchical CP			-.42***	-.47**
	Interaction Term				.05
	R^2 at each step:	.034	.060	.228	.228
	R^2 change:		.026***	.167***	.000
	Total Multiple R:	.477			F = 41.89***
Pay Satisfaction	Age	.04	.04	.11***	.11***
	Supervisor	-.22***	-.22***	-.17***	-.16***
	Facility	.00	.00	-.01	-.01
	Life Sat		.05	.05	.37***
	Hierarchical CP			-.34***	.14
	Interaction Term				-.58**
	R^2 at each step:	.052	.054	.160	.169
	R^2 change:		.003	.106***	.009**
	Total Multiple R:	.411			F = 28.87***
Promotion Satisfaction	Age	-.03	-.03	.12***	.12***
	Supervisor	-.21***	-.21***	-.11***	-.11***
	Facility	.07*	.07*	.05+	.04+
	Life Sat		.06+	.05*	.18*
	Hierarchical CP			-.68***	-.49***
	Interaction Term				-.23
	R^2 at each step:	.051	.054	.492	.493
	R^2 change:		.003+	.438***	.001
	Total Multiple R:	.730			F = 162.40***
Overall Job Satisfaction	Age	.08*	.08*	.20***	.20***
	Supervisor	-.22***	-.22***	-.13***	-.13***
	Facility	.06+	.06+	.04	.04
	Life Sat		.17***	.16***	.25**
	Hierarchical CP			-.55***	-.42**
	Interaction Term				-.16
	R^2 at each step:	.064	.093	.380	.381
	R^2 change:		.028***	.288***	.001
	Total Multiple R:	.617			F = 87.52***

+ $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$

Table 17. (continued)

Dependent Variable	Independent Variable	Standardized Regression Weights Step 1	Step 2	Step 3	Step 4
Organizational Commitment	Age	.15***	.15***	.25***	.25***
	Supervisor	-.21***	-.21***	-.14***	-.14***
	Facility	.12***	.13***	.11***	.11***
	Life Sat		.11***	.10***	.09
	Hierarchical CP			-.47***	-.49***
	Interaction Term				.02
	R^2 at each step:	.098	.109	.320	.320
	R^2 change:		.012***	.211***	.000
	Total Multiple R:	.566			F = 66.90***
Number of Hours Worked	Age	.08*	.08*	.09*	.09**
	Supervisor	-.21***	-.21***	-.21***	-.21***
	Facility	-.05	-.06+	-.06+	-.05
	Life Sat		-.08*	-.08*	-.30*
	Hierarchical CP			-.04	-.38*
	Interaction Term				.41+
	R^2 at each step:	.055	.061	.063	.067
	R^2 change:		.006*	.002	.004+
	Total Multiple R:	.260			F = 10.07***
Employee Health Concerns	Age	-.14***	-.13***	-.17***	-.17***
	Supervisor	-.10**	-.11***	-.14***	-.14***
	Facility	-.02	-.03	-.03	-.03
	Life Sat		-.25***	-.25***	-.18
	Hierarchical CP			.18***	.29+
	Interaction Term				-.13
	R^2 at each step:	.028	.092	.124	.124
	R^2 change:		.064***	.032***	.000
	Total Multiple R:	.353			F = 20.17***
Intention to Quit	Age	-.23***	-.22***	-.31***	-.31***
	Supervisor	.16***	.16***	.10**	.10**
	Facility	-.08*	-.08**	-.06*	-.06*
	Life Sat		-.04	-.03	-.22*
	Hierarchical CP			.41***	.12
	Interaction Term				.35+
	R^2 at each step:	.096	.098	.255	.258
	R^2 change:		.001	.158***	.003+
	Total Multiple R:	.508			F = 49.38***

+ $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$

decrease. Another way to explain these findings would be to say that employees who perceive themselves to be hierarchically plateaued and who also report greater levels of life satisfaction report a decrease in pay satisfaction. The relationship between hierarchical career plateauing and pay satisfaction as moderated by life satisfaction is illustrated in Figure 29. This figure shows that employees reporting higher levels of life satisfaction tend to report higher levels of pay satisfaction than employees with low life satisfaction when perceptions of hierarchical career plateauing are low. However, when perceptions of hierarchical career plateauing are high, employees with higher life satisfaction report lower levels of pay satisfaction than employees with lower life satisfaction.

The standardized beta weights were positive for the slightly significant intent to quit (.35) and number of hours worked (.41) suggesting that for a given level of hierarchical career plateauing, as life satisfaction increases, intent to quit and the number of hours worked tend to increase slightly. Another way to explain these findings would be to say that employees who perceive themselves to be hierarchically plateaued and who also report greater levels of life satisfaction may report a slightly greater intention to quit. They may also report working slightly more hours per week. Since these relationships were only marginally significant ($p < .10$), they are not illustrated. Overall, the findings illustrate limited support for hypothesis 10A.

The results of hypothesis 10B are illustrated in Table 18. According to these results, the change in R^2 for the interaction term (i.e., life satisfaction multiplied by job content career plateauing) was significant for four of the attitudinal variables. The interaction term was significant for social reward satisfaction, pay satisfaction, promotion satisfaction, and intent to quit ($p < .05$).

The standardized beta weights were positive for social reward satisfaction (.37) and intent to quit (.36) indicating that for a given level of job content career plateauing, as life satisfaction increases, social reward satisfaction and intent to quit also tend to increase. The standardized beta weights for pay satisfaction (-.43) and promotion satisfaction (-.42) were

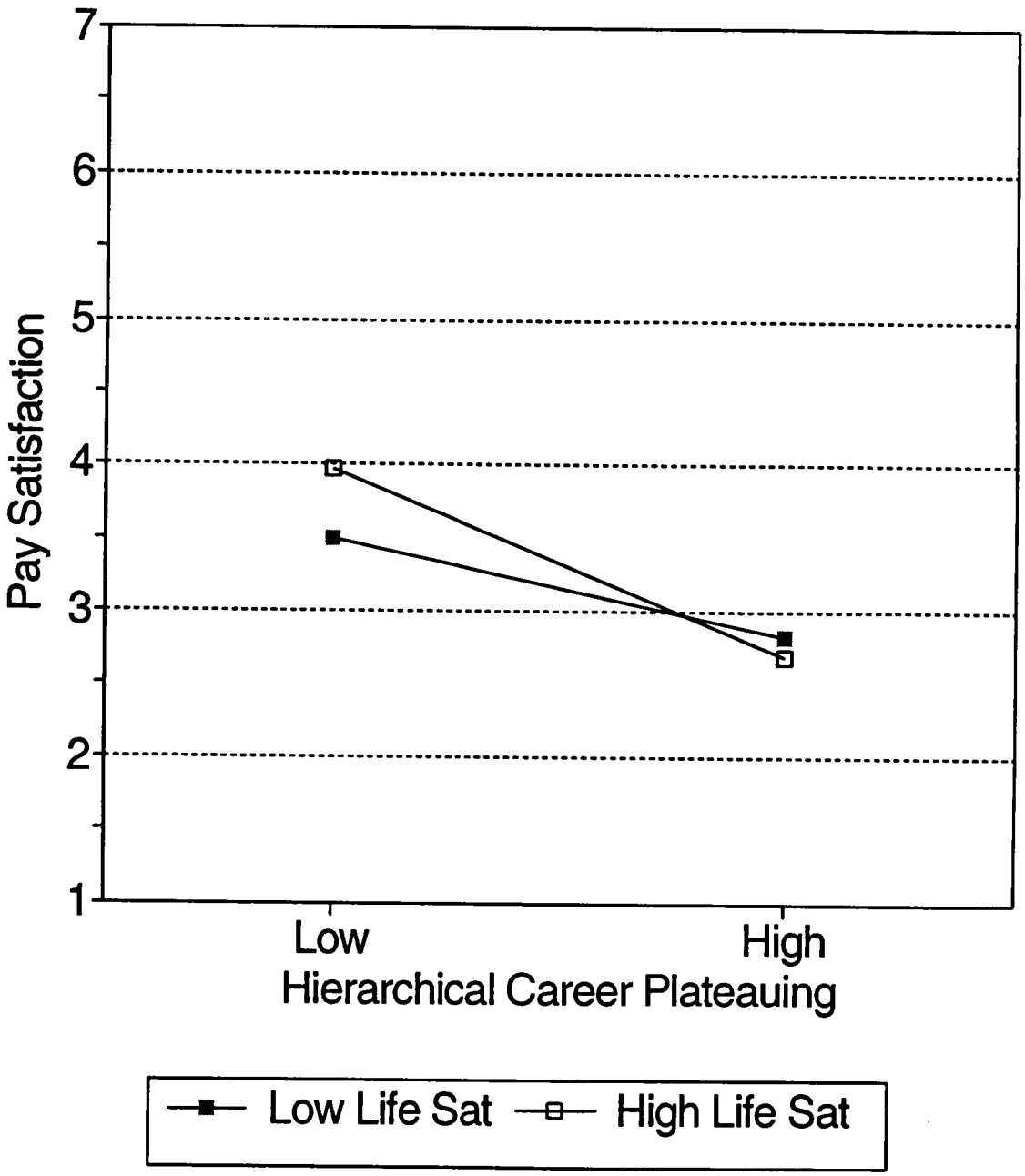


Figure 29. The Relationship Between Hierarchical Career Plateauing and Pay Satisfaction as Moderated by Life Satisfaction.

Table 18. Hierarchical Multiple Regression Analyses: Life Satisfacton as a Potential Moderator Between Job Content Career Plateauing and Job Attitudes.

Dependent Variable	Independent Variable	Standardized Regression Weights Step 1	Step 2	Step 3	Step 4
Social Reward Satisfaction	Age	.13***	.13***	.13***	.13***
	Supervisor	-.05	-.05	.00	.00
	Facility	.02	.02	.02	.02
	Life Sat		.25***	.24***	.08
	Job Content CP			-.20***	-.53**
	Interaction Term				.37*
	R^2 at each step:	.022	.085	.122	.126
	R^2 change:		.062***	.037***	.004*
	Total Multiple R:	.355			F = 20.56***
Intrinsic Reward Satisfaction	Age	.05	.04	.04+	.04+
	Supervisor	-.16***	-.16***	-.01	-.01
	Facility	.05	.05	.04	.04
	Life Sat		.16***	.15***	.12+
	Job Content CP			-.61***	-.65***
	Interaction Term				.05
	R^2 at each step:	.033	.060	.406	.406
	R^2 change:		.027***	.346***	.000
	Total Multiple R:	.637			F = 97.23***
Pay Satisfaction	Age	.04	.04	.04	.04
	Supervisor	-.22***	-.22***	-.17***	-.17***
	Facility	.00	.00	.00	.00
	Life Sat		.05	.04	.24**
	Job Content CP			-.22***	.16
	Interaction Term				-.43*
	R^2 at each step:	.052	.055	.100	.106
	R^2 change:		.003	.045***	.006*
	Total Multiple R:	.411			F = 28.87***
Promotion Satisfaction	Age	-.03	-.03	-.03	-.03
	Supervisor	-.21***	-.21***	-.11***	-.12***
	Facility	.07*	.07*	.06+	.06+
	Life Sat		.06+	.05	.24**
	Job Content CP			-.40***	-.02
	Interaction Term				-.42*
	R^2 at each step:	.051	.054	.204	.210
	R^2 change:		.003+	.150***	.006*
	Total Multiple R:	.458			F = 37.70***
Overall Job Satisfaction	Age	.08*	.07*	.07**	.07**
	Supervisor	-.22***	-.22***	-.10**	-.10**
	Facility	.06+	.06+	.05+	.05+
	Life Sat		.17***	.15***	.24**
	Job Content CP			-.50***	-.32*
	Interaction Term				-.20
	R^2 at each step:	.064	.092	.322	.323
	R^2 change:		.029***	.229***	.001
	Total Multiple R:	.568			F = 67.87***

+ $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$

Table 18. (continued)

Dependent Variable	Independent Variable	Standardized Regression Weights Step 1	Step 2	Step 3	Step 4
Organizational Commitment	Age	.15***	.15***	.15***	.15***
	Supervisor	-.21***	-.21***	-.11***	-.11***
	Facility	.13***	.13***	.12***	.12***
	Life Sat		.11***	.10***	.21**
	Job Content CP			-.40***	-.17
	Interaction Term				-.25
	R^2 at each step:	.097	.108	.256	.258
	R^2 change:		.012***	.147***	.002
	Total Multiple R:	.508			F = 49.38***
Number of Hours Worked	Age	.08*	.08*	.08*	.08*
	Supervisor	-.21***	-.21***	-.19***	-.19***
	Facility	-.05	-.06+	-.06+	-.06+
	Life Sat	-.08*	-.083*	-.09	
	Job Content CP			-.11**	-.12
	Interaction Term				.01
	R^2 at each step:	.055	.061	.072	.072
	R^2 change:		.006*	.011**	.000
	Total Multiple R:	.268			F = 10.83***
Employee Health Concerns	Age	-.14***	-.13***	-.13***	-.13***
	Supervisor	-.10**	-.11***	-.11**	-.11**
	Facility	-.03	-.03	-.03	-.03
	Life Sat		-.25***	-.26***	-.31***
	Job Content CP			.01	-.11
	Interaction Term				.12
	R^2 at each step:	.028	.093	.093	.093
	R^2 change:		.065***	.000	.000
	Total Multiple R:	.305			F = 14.58***
Intention to Quit	Age	-.23***	-.22***	-.22***	-.22***
	Supervisor	.16***	.16***	.06+	.06+
	Facility	-.08*	-.08*	-.07*	-.07*
	Life Sat		-.04	-.02	-.19*
	Job Content CP			.42***	.10
	Interaction Term				.36*
	R^2 at each step:	.096	.098	.262	.266
	R^2 change:		.001	.165***	.004*
	Total Multiple R:	.516			F = 51.42***

+ $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$

negative suggesting that holding career plateauing constant, as life satisfaction increases, pay satisfaction and promotion satisfaction tend to decrease.

Figure 30 illustrates the relationship between job content plateauing and social reward satisfaction as moderated by life satisfaction. With lower perceptions of job content career plateauing, employees reporting higher levels of life satisfaction tended to report greater levels of social reward satisfaction than employees reporting lower levels of life satisfaction. As perceptions of job content plateauing increase, social reward satisfaction decreases for employees, regardless of whether they report high or low levels of life satisfaction. However, this decrease is slightly greater for individuals reporting lower levels of life satisfaction.

The relationship between job content career plateauing and pay satisfaction as moderated by life satisfaction is illustrated in Figure 31. This figure shows that with lower perceptions of job content career plateauing, employees reporting higher levels of life satisfaction also report slightly greater levels of pay satisfaction. With greater perceptions of job content plateauing, this difference disappears, and employees report similar levels of pay satisfaction regardless of their reported life satisfaction.

Figure 32 shows the relationship between job content plateauing and promotion satisfaction as moderated by life satisfaction. As in the previous figure, employees reporting higher levels of life satisfaction also reported slightly greater levels of pay satisfaction than employee reporting lower levels of life satisfaction when perceptions of a job content career plateau are low. With greater perceptions of job content plateauing, this difference disappears, and employees with high and low life satisfaction report similar levels of promotion satisfaction.

The relationship between job content career plateauing and employee intent to quit is illustrated in Figure 33. This figure shows that when perceptions of job content plateauing are low, employees reporting lower levels of life satisfaction report slightly greater intent to quit than employees with higher reported life satisfaction. At greater levels of job content

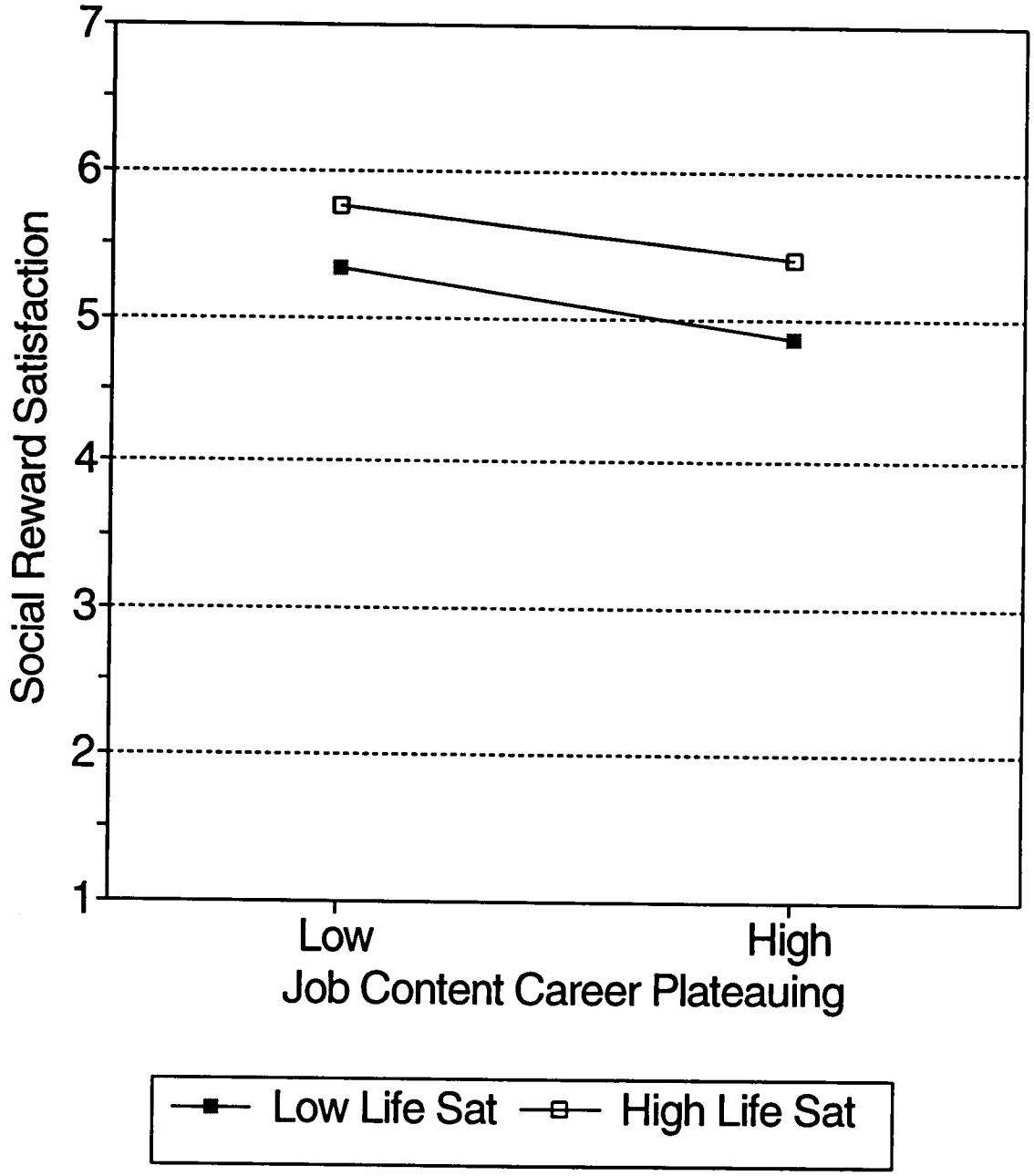


Figure 30. The Relationship Between Job Content Career Plateauing and Social Reward Satisfaction as Moderated by Life Satisfaction.

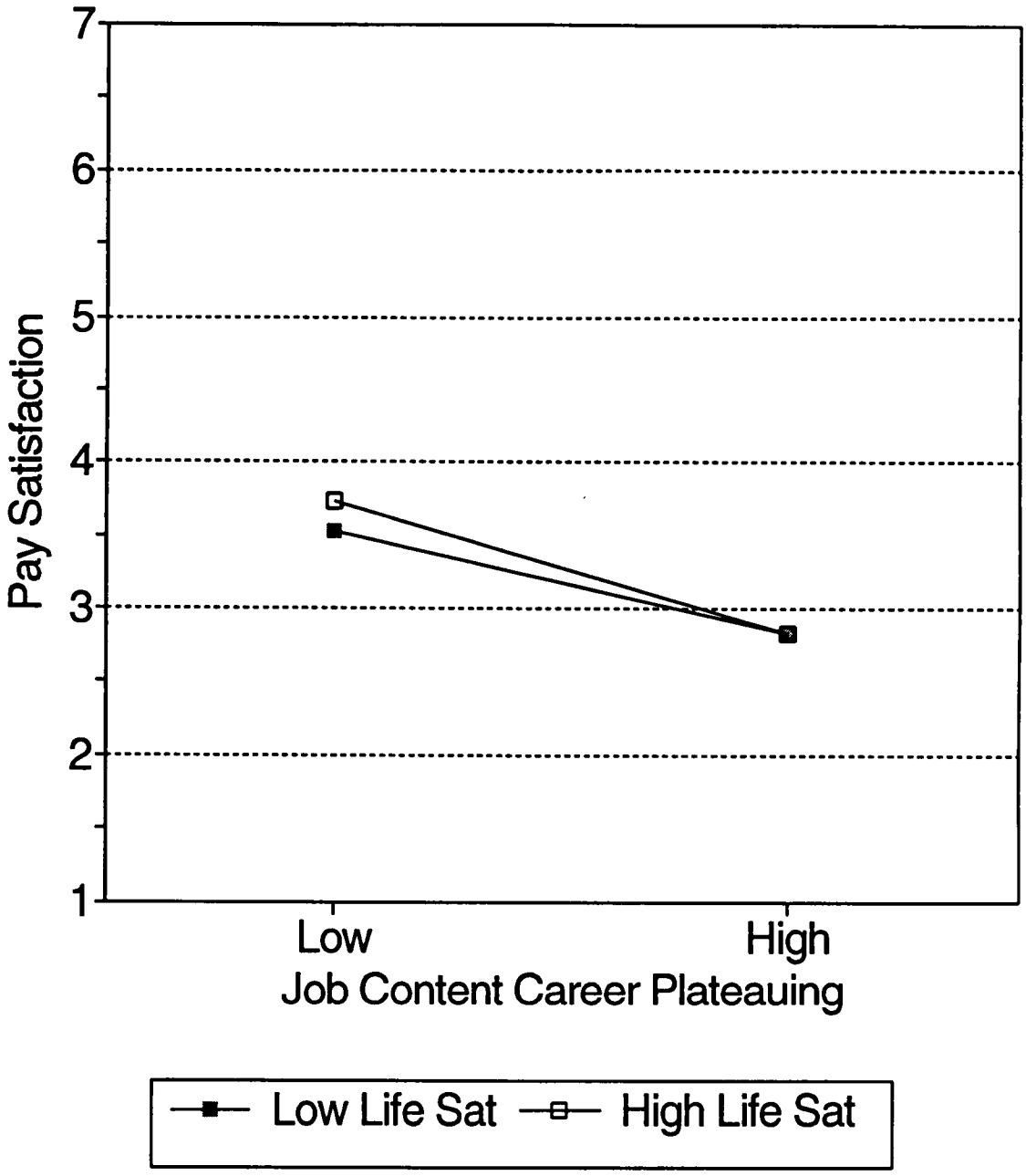


Figure 31. The Relationship Between Job Content Career Plateauing and Pay Satisfaction as Moderated by Life Satisfaction.

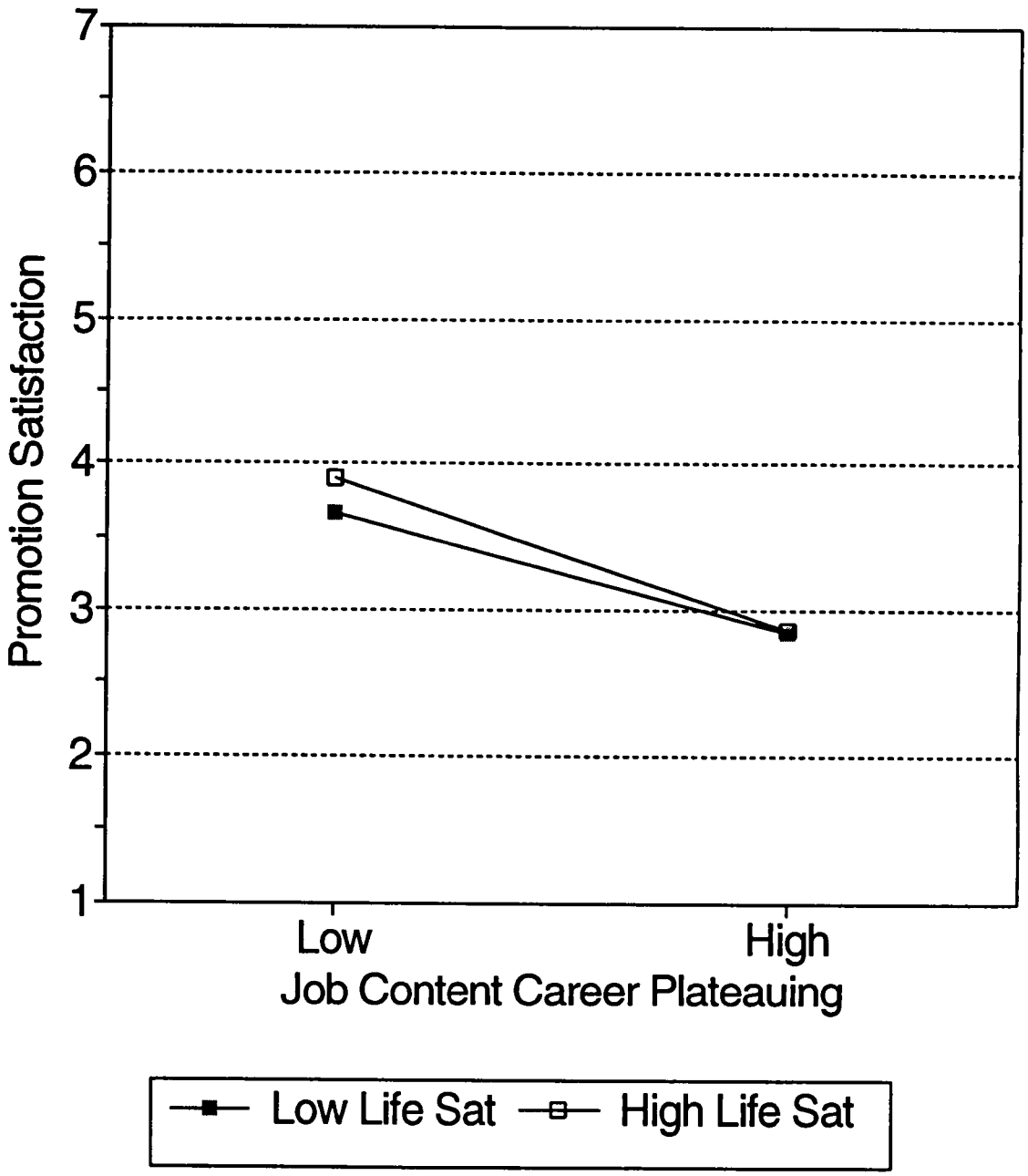


Figure 32. The Relationship Between Job Content Career Plateauing and Promotion Satisfaction as Moderated by Life Satisfaction.

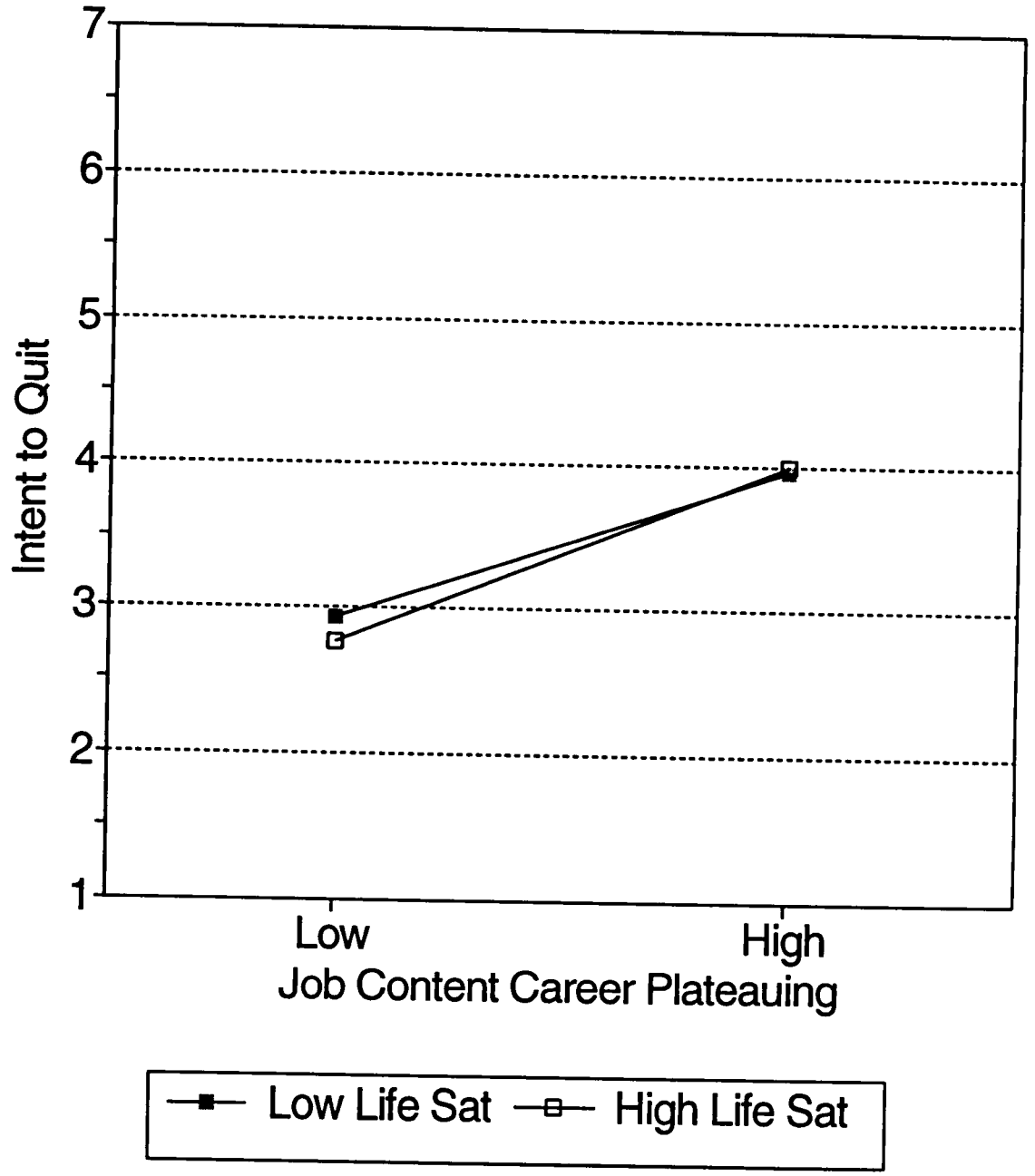


Figure 33. The Relationship Between Job Content Career Plateauing and Intent to Quit as Moderated by Life Satisfaction.

plateauing, however, individuals reporting higher levels of life satisfaction report slightly greater intent to quit than employees with lower life satisfaction.

In summary, employees who perceive themselves to be job content plateaued and who report greater levels of life satisfaction will also report greater levels of social reward satisfaction and intent to quit. These individuals will also tend to report lower levels of pay and promotion satisfaction. The findings demonstrate partial support for hypothesis 10B.

Participation in Developmental Activities as a Moderator.

Hypothesis 11a: Participation in employee development opportunities will moderate the relationship between hierarchical career plateauing and outcome variables (facets of job satisfaction, organizational commitment, number of hours worked per week, job related health concerns, intention to quit).

Hypothesis 11b: Participation in employee development opportunities will moderate the relationship between job content career plateauing and outcome variables (facets of job satisfaction, organizational commitment, number of hours worked per week, job related health concerns, intention to quit).

Participation in employee development opportunities was examined as the next potential moderating variable. As illustrated in Table 19, the change in R^2 for the interaction term (i.e., participation multiplied by hierarchical career plateauing) was only marginally significant for one of the outcome variables. The interaction term was slightly significant for employee health concerns (job-induced tension) ($p < .10$). The standardized beta weight for employee health concerns was positive (.26) suggesting that for a given level of hierarchical career plateauing, as participation in development opportunities increases, there is also a slight increase in job related health concerns. In other words, employees who perceive themselves to be hierarchically plateaued and who participate more frequently in developmental activities will tend to report a slightly greater number of health concerns as well. This relationship is not illustrated since the findings were of marginal significance ($p < .10$) The findings do not support hypothesis 10A.

Table 19. Hierarchical Multiple Regression Analyses: Employee Participation as a Potential Moderator Between Hierarchical Career Plateauing and Job Attitudes.

Dependent Variable	Independent Variable	Standardized Regression Weights Step 1	Step 2	Step 3	Step 4
Social Reward Satisfaction	Age	.13***	.13***	.17***	.17***
	Supervisor	-.05	-.04	-.02	-.02
	Facility	.02	.03	.02	.01
	Participation		.06+	-.02	.04
	Hierarchical CP			-.18***	-.15
	Interaction Term				-.04
	R^2 at each step:	.022	.026	.055	.055
	R^2 change:		.003+	.030***	.000
	Total Multiple R:	.235			F = 8.30***
Intrinsic Reward Satisfaction	Age	.05	.06+	.14***	.14***
	Supervisor	-.16***	-.11**	-.07*	-.07*
	Facility	.05	.07*	.05	.05
	Participation		.20***	.12***	.01
	Hierarchical CP			-.40***	-.54***
	Interaction Term				.16
	R^2 at each step:	.034	.073	.214	.216
	R^2 change:		.038***	.142***	.001
	Total Multiple R:	.464			F = 39.06***
Pay Satisfaction	Age	.04	.04	.11***	.11***
	Supervisor	-.22***	-.21***	-.18***	-.18***
	Facility	.00	.01	-.02	-.01
	Participation		.02	-.06+	-.11
	Hierarchical CP			-.35***	-.42***
	Interaction Term				.08
	R^2 at each step:	.050	.050	.159	.160
	R^2 change:		.000	.109***	.000
	Total Multiple R:	.399			F = 26.96***
Promotion Satisfaction	Age	-.03	-.02	.12***	.12***
	Supervisor	-.22***	-.17***	-.11***	-.11***
	Facility	.07*	.09**	.05+	.05**
	Participation		.17***	.03	.13+
	Hierarchical CP			-.68***	-.55***
	Interaction Term				-.15
	R^2 at each step:	.051	.079	.491	.492
	R^2 change:		.028***	.412***	.001
	Total Multiple R:	.702			F = 137.73***

+ $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$

Table 19. (continued)

Dependent Variable	Independent Variable	Standardized Regression Weights Step 1	Step 2	Step 3	Step 4
Overall Job Satisfaction	Age	.08*	.08*	.20***	.20***
	Supervisor	-.22***	-.18***	-.13***	-.13***
	Facility	.06+	.07*	.04	.04
	Participation		.14***	.02	.03
	Hierarchical CP			-.55***	-.55***
	Interaction Term				.00
	R^2 at each step:	.064	.083	.355	.355
	R^2 change:		.019***	.272***	.000
	Total Multiple R:	.595			F = 78.00***
Organizational Commitment	Age	.15***	.16***	.25***	.25***
	Supervisor	-.22***	-.16***	-.12***	-.12***
	Facility	.13***	.15***	.12***	.12***
	Participation		.21***	.11***	.12
	Hierarchical CP			-.45***	-.44***
	Interaction Term				-.01
	R^2 at each step:	.099	.140	.321	.321
	R^2 change:		.041***	.181***	.000
	Total Multiple R:	.567			F = 67.19***
Number of Hours/ Week Worked	Age	.08*	.09*	.09*	.09*
	Supervisor	-.21***	-.17***	-.17***	-.17***
	Facility	-.05	-.04	-.04	-.04
	Participation		.15***	.15***	.17
	Hierarchical CP			-.01	.01
	Interaction Term				-.03
	R^2 at each step:	.054	.075	.075	.075
	R^2 change:		.021***	.000	.000
	Total Multiple R:	.274			F = 11.28***
Employee Health Concerns	Age	-.14***	-.14***	-.18***	-.18***
	Supervisor	-.11***	-.09**	-.11**	-.11**
	Facility	-.02	-.02	-.01	.00
	Participation		.06	.10**	-.08
	Hierarchical CP			.21***	-.02
	Interaction Term				.26+
	R^2 at each step:	.029	.032	.071	.074
	R^2 change:		.003	.039***	.004+
	Total Multiple R:	.273			F = 11.40***
Intention to Quit	Age	-.23***	-.23***	-.31***	-.31***
	Supervisor	.16***	.15***	.11***	.11***
	Facility	-.08*	-.09*	-.06*	-.06+
	Participation		-.05	.05	-.07
	Hierarchical CP			.42***	.28*
	Interaction Term				.16
	R^2 at each step:	.096	.098	.256	.257
	R^2 change:		.002	.158***	.001
	Total Multiple R:	.507			F = 49.05***

+ $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$

The results of hypothesis 11B are illustrated in Table 20. According to these results, the change in R^2 for the interaction term (i.e., participation multiplied by job content career plateauing) was significant for three of the outcome variables. These variables were promotion satisfaction, overall job satisfaction, and intent to quit ($p < .05$). In addition, the interaction term was marginally significant for one of the outcome variables, employee health concerns ($p < .10$).

The standardized beta weight was positive for intent to quit (.35) suggesting that for a given level of job content career plateauing, as participation increases, employees also tended to report a greater intent to quit. The standardized beta weights were negative for promotion satisfaction (-.36) and overall job satisfaction (-.26) suggesting that holding career plateauing constant, as participation increases, promotion satisfaction and overall job satisfaction decrease. In other words, employees who perceive themselves to be job content plateaued and who report greater levels of participation in developmental opportunities will report a greater intention to quit, and decreased levels of promotion and overall job satisfaction.

Figure 34 illustrates the relationship between job content plateauing and promotion satisfaction as moderated by employee participation. This figure shows that employees reporting higher levels of participation report greater levels of promotion satisfaction than employees reporting lower levels of participation when perceptions of job content plateauing are low. At higher levels of plateauing, promotion satisfaction decreases for both groups, but this decrease is greater for the employees reporting higher levels of participation.

The relationship between job content career plateauing and overall job satisfaction as moderated by employee participation is illustrated in Figure 35. Employees reporting higher levels of participation reported greater levels of overall job satisfaction than employees reporting lower levels of participation when perceptions of job content plateauing are low. When perceptions of job content plateauing are greater, overall job satisfaction decreases for both groups of employees, but this difference is slightly greater for employees reporting higher levels of participation.

Table 20. Hierarchical Multiple Regression Analyses: Employee Participation as a Potential Moderator Between Job Content Career Plateauing and Job Attitudes.

Dependent Variable	Independent Variable	Standardized Regression Weights Step 1	Step 2	Step 3	Step 4
Social Reward Satisfaction	Age	.13***	.13***	.13***	.12***
	Supervisor	-.05	-.04	.00	.00
	Facility	.02	.03	.02	.02
	Participation		.06	.01	.12
	Job Content CP			-.20***	-.04
	Interaction Term				-.18
	R^2 at each step:	.022	.025	.061	.063
	R^2 change:		.003*	.036***	.002
	Total Multiple R:	.252			F = 9.60***
Intrinsic Reward Satisfaction	Age	.05	.05	.05+	.05+
	Supervisor	-.16***	-.11**	.01	.00
	Facility	.05	.07*	.04	.04
	Participation		.20***	.06	.02
	Job Content CP			-.60***	-.66***
	Interaction Term				.07
	R^2 at each step:	.034	.071	.388	.388
	R^2 change:		.037***	.317***	.000
	Total Multiple R:	.623			F = 90.13***
Pay Satisfaction	Age	.04	.04	.04	.03
	Supervisor	-.22***	-.21***	-.17***	-.16***
	Facility	.00	.00	-.01	-.01
	Participation		.02	-.03	.08
	Job Content CP			-.23***	-.06
	Interaction Term				-.18
	R^2 at each step:	.050	.051	.098	.100
	R^2 change:		.000	.047***	.002
	Total Multiple R:	.316			F = 15.79***
Promotion Satisfaction	Age	-.03	-.02	-.03	-.03
	Supervisor	-.22***	-.17***	-.10**	-.09**
	Facility	.07*	.09**	.07*	.06*
	Participation		.17***	.08*	.31***
	Job Content CP			-.38***	-.04
	Interaction Term				-.36**
	R^2 at each step:	.051	.079	.207	.216
	R^2 change:		.028***	.128***	.009**
	Total Multiple R:	.464			F = 39.04***
Overall Job Satisfaction	Age	.08*	.08*	.08**	.07*
	Supervisor	-.22***	-.18***	-.09**	-.09**
	Facility	.06+	.07*	.05	.05
	Participation		.14***	.02	.18*
	Job Content CP			-.49***	-.25*
	Interaction Term				-.26*
	R^2 at each step:	.063	.081	.296	.301
	R^2 change:		.018***	.215***	.005*
	Total Multiple R:	.548			F = 61.07***

+ $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$

Table 20. (continued)

Dependent Variable	Independent Variable	Standardized Regression Weights Step 1	Step 2	Step 3	Step 4
Organizational Commitment	Age	.15***	.16***	.15***	.15***
	Supervisor	-.21***	-.16***	-.09**	-.09**
	Facility	.13***	.15***	.13***	.13***
	Participation		.21***	.12***	.23**
	Job Content CP			-.37***	-.20+
	Interaction Term				-.18
	R^2 at each step:	.098	.138	.258	.260
	R^2 change:		.040***	.120***	.002
	Total Multiple R:	.510			F = 49.92***
Number of Hours/ Week Worked	Age	.08*	.09*	.08*	.08*
	Supervisor	-.21***	-.17***	-.16***	-.15***
	Facility	-.05	-.04	-.04	-.04
	Participation		.15***	.13***	.19*
	Job Content CP			-.07*	.01
	Interaction Term				-.09
	R^2 at each step:	.054	.075	.080	.080
	R^2 change:		.021***	.005*	.000
	Total Multiple R:	.283			F = 12.16***
Employee Health Concerns	Age	-.14***	-.13***	-.13***	-.13***
	Supervisor	-.11**	-.09**	-.09**	-.10**
	Facility	-.03	-.02	-.02	-.02
	Participation		.06+	.06+	-.09
	Job Content CP			.01	-.22+
	Interaction Term				.24+
	R^2 at each step:	.029	.032	.032	.036
	R^2 change:		.003+	.000	.004+
	Total Multiple R:	.189			F = 5.28***
Intention to Quit	Age	-.23***	-.23***	-.22***	-.21***
	Supervisor	.16***	.15***	.07*	.06+
	Facility	-.08*	-.09*	-.06*	-.06*
	Participation		-.05	.06+	-.16*
	Job Content CP			.43***	.10
	Interaction Term				.35**
	R^2 at each step:	.096	.098	.262	.271
	R^2 change:		.002	.164***	.008**
	Total Multiple R:	.520			F = 52.52***

+ $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$

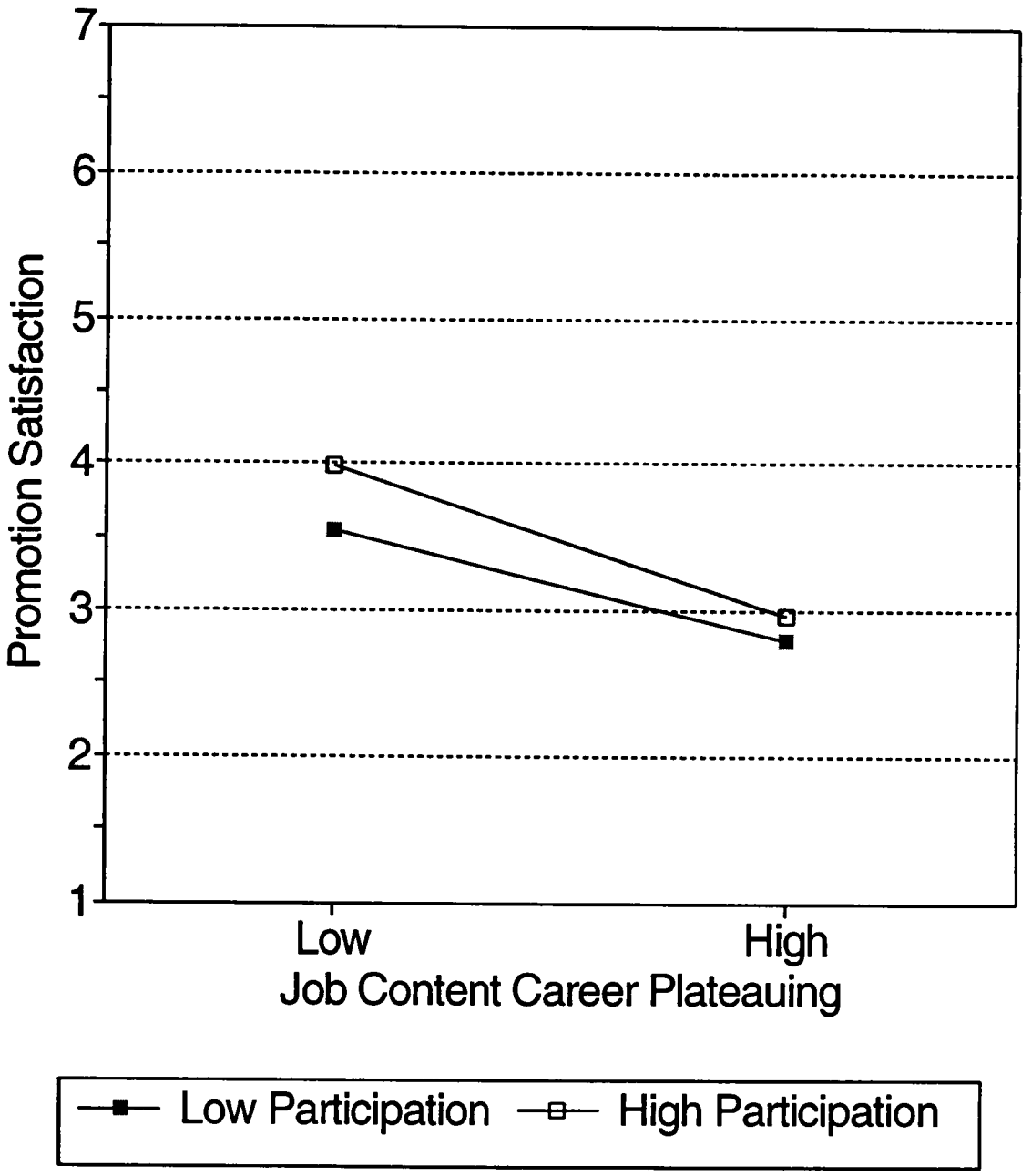


Figure 34. The Relationship Between Job Content Career Plateauing and Promotion Satisfaction as Moderated by Employee Participation.

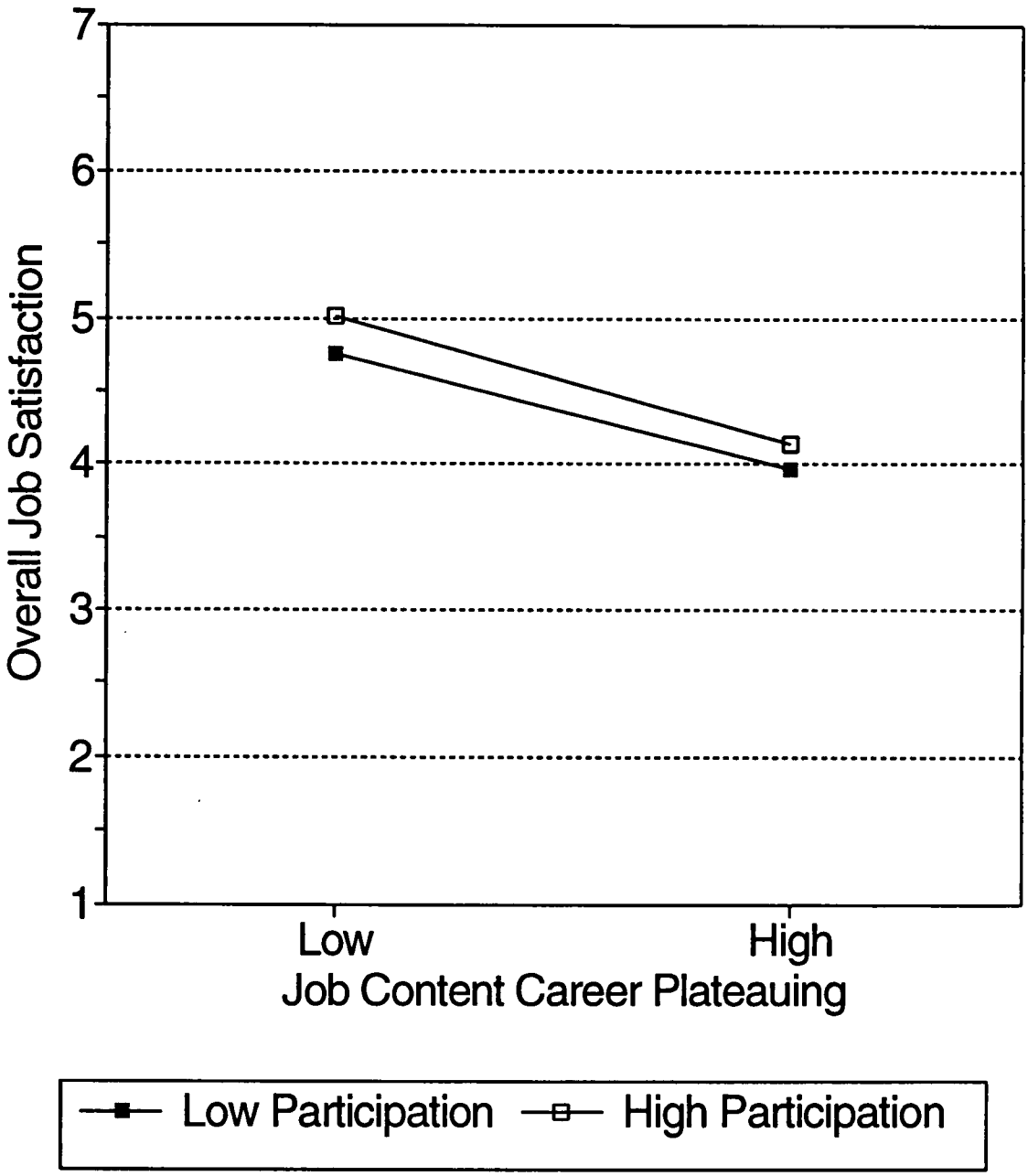


Figure 35. The Relationship Between Job Content Career Plateauing and Overall Job Satisfaction as Moderated by Employee Participation.

Figure 36 illustrates the relationship between job content career plateauing and intent to quit as moderated by employee participation. When perceptions of job content plateauing are low, employees reporting lower levels of participation tend to report greater intent to quit than employees reporting higher levels of participation. With greater perceptions of job content plateauing, employees reporting higher levels of participation reported slightly greater intent to quit than those who participated less.

The standardized beta weight for employee health concerns was positive (.24). While this variable was only marginally significant, the findings suggest that employees who perceive themselves to be at a job content career plateau and who also report greater levels of participation may tend to report slightly more job-induced anxiety than employees who do not report high levels of participation. This relationship is not illustrated as it was only marginally significant ($p < .10$). Overall, these findings demonstrate partial support for hypothesis 11B.

Alternative Job Opportunities as a Moderator.

Hypothesis 12a Alternative job opportunities will moderate the relationship between hierarchical career plateauing and outcome variables (facets of job satisfaction, organizational commitment, number of hours worked per week, job related health concerns, intention to quit).

Hypothesis 12b: Alternative job opportunities will moderate the relationship between job content career plateauing and outcome variables (facets of job satisfaction, organizational commitment, number of hours worked per week, job related health concerns, intention to quit).

Alternative job opportunities was the next potential moderating variable under investigation. As illustrated in Table 21, the change in R^2 for the interaction term (i.e., alternative job opportunities multiplied by hierarchical career plateauing) was not significant for any of the relationships between hierarchical career plateauing and outcome variables. Thus, there was no support for hypothesis 12A.

The results of hypothesis 12B are illustrated in Table 22. According to these results, the change in R^2 for the interaction term (i.e., alternative job opportunities multiplied by job content career plateauing) was only marginally significant for two of the attitudinal variables.

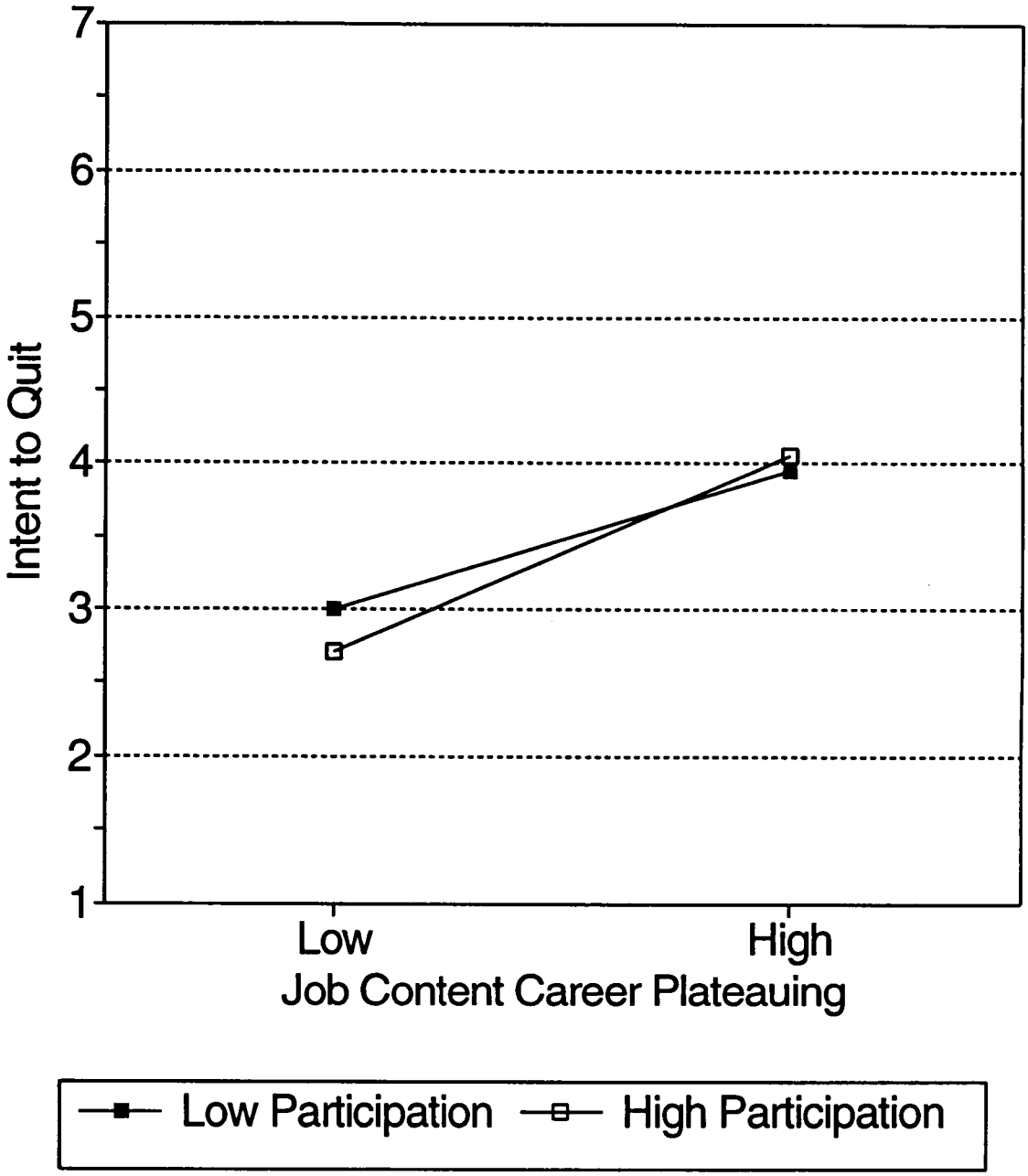


Figure 36. The Relationship Between Job Content Career Plateauing and Intent to Quit as Moderated by Employee Participation.

Table 21. Hierarchical Multiple Regression Analyses: Alternative Job Opportunities as a Potential Moderator Between Hierarchical Career Plateauing and Job Attitudes.

Dependent Variable	Independent Variable	Standardized Regression Weights Step 1	Step 2	Step 3	Step 4
Social Reward Satisfaction	Age	.13***	.13***	.17***	.17***
	Supervisor	-.05	-.05	-.02	-.02
	Facility	.02	.02	.01	.01
	Alt Jobs		-.05	-.02	.02
	Hierarchical CP			-.18***	-.13
	Interaction Term				-.07
	R^2 at each step:	.023	.025	.056	.056
	R^2 change:		.002	.031***	.000
	Total Multiple R:	.236			F = 8.43***
Intrinsic Reward Satisfaction	Age	.05	.04	.13***	.13***
	Supervisor	-.16***	-.17***	-.10***	-.10***
	Facility	.04	.05	.03	.03
	Alt Jobs		-.10**	-.05	-.03
	Hierarchical CP			-.42***	-.40**
	Interaction Term				-.02
	R^2 at each step:	.034	.044	.202	.202
	R^2 change:		.010**	.159***	.000
	Total Multiple R:	.450			F = 36.11***
Pay Satisfaction	Age	.04	.01	.09**	.09**
	Supervisor	-.22***	-.23***	-.18***	-.18***
	Facility	.00	.01	.00	.00
	Alt Jobs		-.18***	-.14***	-.13
	Hierarchical CP			-.32***	-.30*
	Interaction Term				-.02
	R^2 at each step:	.050	.083	.176	.176
	R^2 change:		.033***	.092***	.000
	Total Multiple R:	.419			F = 30.31***
Promotion Satisfaction	Age	-.03	-.06+	.10***	.10***
	Supervisor	-.21***	-.23***	-.12***	-.12***
	Facility	.07*	.08*	.05*	.05*
	Alt Jobs		-.21***	-.12***	-.10
	Hierarchical CP			-.67***	-.64***
	Interaction Term				-.03
	R^2 at each step:	.050	.092	.502	.502
	R^2 change:		.042***	.410***	.000
	Total Multiple R:	.708			F = 143.36***

+ $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$

Table 21. (continued)

Dependent Variable	Independent Variable	Standardized Regression Weights Step 1	Step 2	Step 3	Step 4
Overall Job Satisfaction	Age	.08*	.05	.18***	.18***
	Supervisor	-.22***	-.24***	-.15***	-.15***
	Facility	.05	.06+	.04	.04
	Alt Jobs		-.20***	-.13***	-.09
	Hierarchical CP			-.54***	-.48***
	Interaction Term				-.07
	R^2 at each step:	.063	.102	.368	.368
	R^2 change:		.039***	.266***	.000
	Total Multiple R:	.607			F = 83.02***
Organizational Commitment	Age	.15***	.12***	.23***	.23***
	Supervisor	-.21***	-.23***	-.16***	-.16***
	Facility	.12***	.13***	.12***	.17***
	Alt Jobs		-.22***	-.16***	-.135
	Hierarchical CP			-.45***	-.41**
	Interaction Term				-.05
	R^2 at each step:	.097	.145	.334	.334
	R^2 change:		.048***	.188***	.000
	Total Multiple R:	.578			F = 71.23***
Number of Hours/ Week Worked	Age	.08*	.08*	.09**	.08*
	Supervisor	-.21***	-.21***	-.21***	-.21***
	Facility	-.05	-.05	-.05	.05
	Alt Jobs		-.01	.00	.16
	Hierarchical CP			-.05	.17
	Interaction Term				-.29
	R^2 at each step:	.056	.056	.058	.060
	R^2 change:		.000	.002	.002
	Total Multiple R:	.245			F = 8.94***
Employee Health Concerns	Age	-.14***	-.12***	-.16***	-.15***
	Supervisor	-.11**	-.09**	-.12***	-.12***
	Facility	-.02	-.03	-.02	-.03
	Alt Jobs		.17***	.15***	.07
	Hierarchical CP			.17***	.06
	Interaction Term				.13
	R^2 at each step:	.029	.057	.082	.082
	R^2 change:		.027***	.025***	.000
	Total Multiple R:	.287			F = 12.77***
Intention to Quit	Age	-.23***	-.18***	-.27***	-.26***
	Supervisor	.16***	.19***	.13***	.13***
	Facility	-.08*	-.09**	-.08**	-.08**
	Alt Jobs		.32***	.27	.15
	Hierarchical CP			.37***	.21+
	Interaction Term				.21
	R^2 at each step:	.096	.197	.326	.327
	R^2 change:		.101***	.129***	.001
	Total Multiple R:	.572			F = 69.14***

+ $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$

Table 22. Hierarchical Multiple Regression Analyses: Alternative Job Opportunities as a Potential Moderator Between Job Content Career Plateauing and Job Attitudes.

Dependent Variable	Independent Variable	Standardized Regression Weights Step 1	Step 2	Step 3	Step 4
Social Reward Satisfaction	Age	.13***	.13***	.13***	.12***
	Supervisor	-.05	-.05	.00	.00
	Facility	.02	.02	.01	.02
	Alt Jobs		-.05	-.04	.11
	Job Content CP			-.20***	.05
	Interaction Term				-.30+
	R^2 at each step:	.023	.025	.064	.067
	R^2 change:		.002	.039***	.003+
	Total Multiple R:	.259			F = 10.20***
Intrinsic Reward Satisfaction	Age	.05	.04	.04	.04
	Supervisor	-.16***	-.17***	-.02	-.02
	Facility	.04	.05	.03	.03
	Alt Jobs		-.10***	-.07**	-.08
	Job Content CP			-.61***	-.63***
	Interaction Term				-.02
	R^2 at each step:	.034	.044	.387	.387
	R^2 change:		.010**	.343***	.000
	Total Multiple R:	.622			F = 89.91***
Pay Satisfaction	Age	.04	.01	.02	.02
	Supervisor	-.22***	-.23***	-.18***	-.18***
	Facility	.00	.01	.00	.00
	Alt Jobs		-.18***	-.17***	-.27**
	Job Content CP			-.21***	-.39**
	Interaction Term				.21
	R^2 at each step:	.050	.083	.125	.127
	R^2 change:		.033***	.042***	.002
	Total Multiple R:	.356			F = 20.67***
Promotion Satisfaction	Age	-.03	-.06+	-.05+	-.05+
	Supervisor	-.21***	-.23***	-.13***	-.13***
	Facility	.07*	.08*	.07*	.06*
	Alt Jobs		-.21***	-.19***	-.25**
	Job Content CP			-.39***	-.50***
	Interaction Term				.12
	R^2 at each step:	.050	.092	.234	.235
	R^2 change:		.042***	.142***	.001
	Total Multiple R:	.484			F = 43.64***

+ $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$

Table 22. (continued)

Dependent Variable	Independent Variable	Standardized Regression Weights Step 1	Step 2	Step 3	Step 4
Overall Job Satisfaction	Age	.08*	.05	.06*	.06*
	Supervisor	-.22***	-.24***	-.11***	-.11***
	Facility	.05	.06+	.05+	.05+
	Alt Jobs		-.20***	-.18***	-.19*
	Job Content CP			-.49***	-.51***
	Interaction Term				.03
	R^2 at each step:	.063	.102	.324	.324
	R^2 change:		.039***	.222***	.000
	Total Multiple R:	.569			F = 68.19***
Organizational Commitment	Age	.15***	.12***	.13***	.13***
	Supervisor	-.21***	-.23***	-.13***	-.13***
	Facility	.12***	.13***	.12***	.12***
	Alt Jobs		-.22***	-.20***	-.21**
	Job Content CP			-.39***	-.40**
	Interaction Term				.02
	R^2 at each step:	.097	.145	.284	.284
	R^2 change:		.048***	.139***	.000
	Total Multiple R:	.533			F = 56.50***
Number of Hours/ Week Worked	Age	.08*	.08*	.08*	.08*
	Supervisor	-.21***	-.21***	-.19***	-.19***
	Facility	-.05	-.05	-.05	-.05
	Alt Jobs		-.01	.00	.00
	Job Content CP			-.11**	-.10
	Interaction Term				-.01
	R^2 at each step:	.056	.056	.066	.066
	R^2 change:		.000	.011**	.000
	Total Multiple R:	.258			F = 9.93***
Employee Health Concerns	Age	-.14***	-.12***	-.12***	-.11***
	Supervisor	-.11**	-.09**	-.09*	-.09*
	Facility	-.02	-.03	-.03	-.03
	Alt Jobs		.17***	.17***	.01
	Job Content CP			-.02	-.28+
	Interaction Term				.32+
	R^2 at each step:	.029	.057	.057	.060
	R^2 change:		.027***	.000	.004+
	Total Multiple R:	.246			F = 9.13***
Intention to Quit	Age	-.23***	-.18***	-.18***	-.18***
	Supervisor	.16***	.19***	.09**	.09**
	Facility	-.08*	-.09***	-.08**	-.08**
	Alt Jobs		.32**	.30***	.26**
	Job Content CP			.41***	.33**
	Interaction Term				.09
	R^2 at each step:	.096	.197	.350	.350
	R^2 change:		.101	.153***	.000
	Total Multiple R:	.592			F = 76.44***

+ $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$

This term was slightly significant for social reward satisfaction, and employee health concerns ($p < .10$).

The standardized beta weight was positive for employee health concerns (.32)suggesting that for a given level of job content career plateauing, as alternative job opportunities increase, there is also a slight increase in job related health concerns. The standardized beta weight for social reward satisfaction was negative (-.30) suggesting that holding career plateauing constant, as alternative job opportunities increase, social reward satisfaction decreases slightly. In other words, employees who perceive themselves to be job content plateaued and who also perceive a greater number of alternative job opportunities tend to report slightly greater amounts of health concerns and slightly lower social reward satisfaction. Since the results were only marginally significant ($p < .10$), they are not illustrated.

These results demonstrate that for the relationship between job content career plateauing and the outcome measures, alternative job opportunities was only marginally significant for two of the attitudinal variables. These findings do not support hypothesis 12B.

Job Content Plateau as a Moderator.

Hypothesis 13: The perception of a job content plateau will moderate the relationship between hierarchical career plateauing and outcome variables (facets of job satisfaction, organizational commitment, number of hours worked per week, job related health concerns, intention to quit).

Job content career plateauing was also investigated as a potential moderating variable. The results of hypothesis 13 are illustrated in Table 23. According to these results, the change in R^2 for the interaction term (i.e., job content career plateauing multiplied by hierarchical career plateauing) was significant for only one of the outcome variables. The interaction term was significant only for pay satisfaction ($p < .05$).

The standardized beta weight for pay satisfaction (.45) was positive suggesting that for a given level of hierarchical career plateauing, as perceptions of job content plateauing

Table 23. Hierarchical Multiple Regression Analyses: Job Content Career Plateauing as a Potential Moderator Between Hierarchical Career Plateauing and Job Attitudes.

Dependent Variable	Independent Variable	Standardized Regression Weights Step 1	Step 2	Step 3	Step 4
Social Reward Satisfaction	Age	.13***	.13***	.16***	.16***
	Supervisor	-.05	.00	.01	.01
	Facility	.02	.01	.01	.01
	Job Content CP		-.20***	-.16***	-.34**
	Hierarchical CP			-.12***	-.24**
	Interaction Term				.26
	R^2 at each step:	.023	.062	.074	.076
	R^2 change:		.039***	.012***	.002
	Total Multiple R:	.276			F = 11.77***
Intrinsic Reward Satisfaction	Age	.05	.05+	.10***	.10***
	Supervisor	-.16***	-.01	.00	.00
	Facility	.05	.03	.03	.03
	Job Content CP		-.61***	-.53***	-.37***
	Hierarchical CP			-.22***	-.12+
	Interaction Term				-.22
	R^2 at each step:	.034	.384	.421	.423
	R^2 change:		.350***	.038***	.002
	Total Multiple R:	.651			F = 104.53***
Pay Satisfaction	Age	.04	.04	.10**	.10**
	Supervisor	-.22***	-.16***	-.15***	-.14***
	Facility	.00	.00	-.01	-.01
	Job Content CP		-.22***	-.11**	-.43***
	Hierarchical CP			-.30***	-.50***
	Interaction Term				.45**
	R^2 at each step:	.051	.097	.166	.173
	R^2 change:		.046***	.069***	.007**
	Total Multiple R:	.416			F = 29.86***
Promotion Satisfaction	Age	-.03	-.03	.107***	.11***
	Supervisor	-.21***	-.11***	-.078***	-.08**
	Facility	.07*	.06+	.043*	.04+
	Job Content CP		-.40***	-.158***	-.30**
	Hierarchical CP			-.622***	-.71***
	Interaction Term				-.20
	R^2 at each step:	.050	.201	.508	.509
	R^2 change:		.150***	.308***	.001
	Total Multiple R:	.714			F = 148.00***

+ $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$

Table 23. (continued)

Dependent Variable	Independent Variable	Standardized Regression Weights Step 1	Step 2	Step 3	Step 4
Overall Job Satisfaction	Age	.08*	.08**	.17***	.17***
	Supervisor	-.22***	-.09**	-.07**	-.07**
	Facility	.06+	.04	.03	.03
	Job Content		-.50***	-.33**	-.45***
	Hierarchical CP			-.43***	-.50***
	Interaction Term				.16
	R^2 at each step:	.063	.295	.440	.441
	R^2 change:		.232***	.145***	.001
	Total Multiple R:	.664			F = 112.39***
Organizational Commitment	Age	.15***	.15***	.23***	.23***
	Supervisor	-.21***	-.11***	-.09**	-.09**
	Facility	.12***	.11***	.11***	.11***
	Job Content		-.40***	-.25***	-.21+
	Hierarchical CP			-.38***	-.35***
	Interaction Term				-.05
	R^2 at each step:	.098	.245	.359	.359
	R^2 change:		.148***	.113***	.000
	Total Multiple R:	.599			F = 79.60***
Number of Hours/ Week Worked	Age	.08*	.08*	.08*	.08*
	Supervisor	-.21***	-.18***	-.18***	-.18***
	Facility	-.05	-.06+	-.06+	-.06+
	Job Content		-.10*	-.10**	-.25+
	Hierarchical CP			.00	-.10
	Interaction Term				.21
	R^2 at each step:	.055	.065	.065	.066
	R^2 change:		.010*	.000	.001
	Total Multiple R:	.258			F = 9.94***
Employee Health Concerns	Age	-.14***	-.14***	-.19***	-.19***
	Supervisor	-.11**	-.11**	-.12***	-.12***
	Facility	-.02	-.02	-.02	-.02
	Job Content		-.01	-.09*	-.25+
	Hierarchical CP			.22***	.12
	Interaction Term				.22
	R^2 at each step:	.029	.029	.068	.070
	R^2 change:		.000	.039***	.002
	Total Multiple R:	.265			F = 10.71***
Intention to Quit	Age	-.23***	-.22***	-.29***	-.29***
	Supervisor	.16***	.05+	.04	.04
	Facility	-.08*	-.07*	-.06*	-.06**
	Job Content		.42***	.31***	.39***
	Hierarchical CP			.29***	.34***
	Interaction Term				-.11
	R^2 at each step:	.096	.260	.328	.329
	R^2 change:		.165***	.068***	.000
	Total Multiple R:	.573			F = 69.51***

+ $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$

increase, employees tended to report greater levels of pay satisfaction. In other words, employees who perceive themselves to be both hierarchically and job content career plateaued will tend to report greater levels of pay satisfaction. This relationship is illustrated in Figure 37. This figure shows that when perceptions of hierarchical career plateauing are low, employees with greater perceptions of job content career plateauing reported lower levels of pay satisfaction than individuals with lower perceptions of job content plateauing. When perceptions of hierarchical career plateauing are greater, pay satisfaction decreases for employees perceiving lower and higher levels of job content plateauing. This difference is greater for those employees who perceive lower levels of job content career plateauing, but the lowest level of pay satisfaction is reported by employees perceiving both hierarchical and job content career plateaus. This finding demonstrates very limited support for hypothesis 13.

Age as a Moderator.

Hypothesis 14a: Employee age will moderate the relationship between hierarchical career plateauing and outcome variables (facets of job satisfaction, organizational commitment, number of hours worked per week, job related health concerns, intention to quit).

Hypothesis 14b: Employee age will moderate the relationship between job content career plateauing and outcome variables (facets of job satisfaction, organizational commitment, number of hours worked per week, job related health concerns, intention to quit).

The final moderating variable under investigation was age. As illustrated in Table 24, the change in R^2 for the interaction term (i.e., age multiplied by hierarchical career plateauing) was significant for three of the outcome variables. The interaction term was significant for intent to quit, organizational commitment, and number of hours/week worked ($p < .05$).

The standardized beta weights were positive for organizational commitment (.42) and number of hours worked (.60) suggesting that for a given level of hierarchical career plateauing, as age increases, employees tend to report greater levels of organizational commitment and a greater number of hours worked per week. The standardized beta weight was negative for intent to quit (-.77) indicating that if we hold career plateauing constant, as

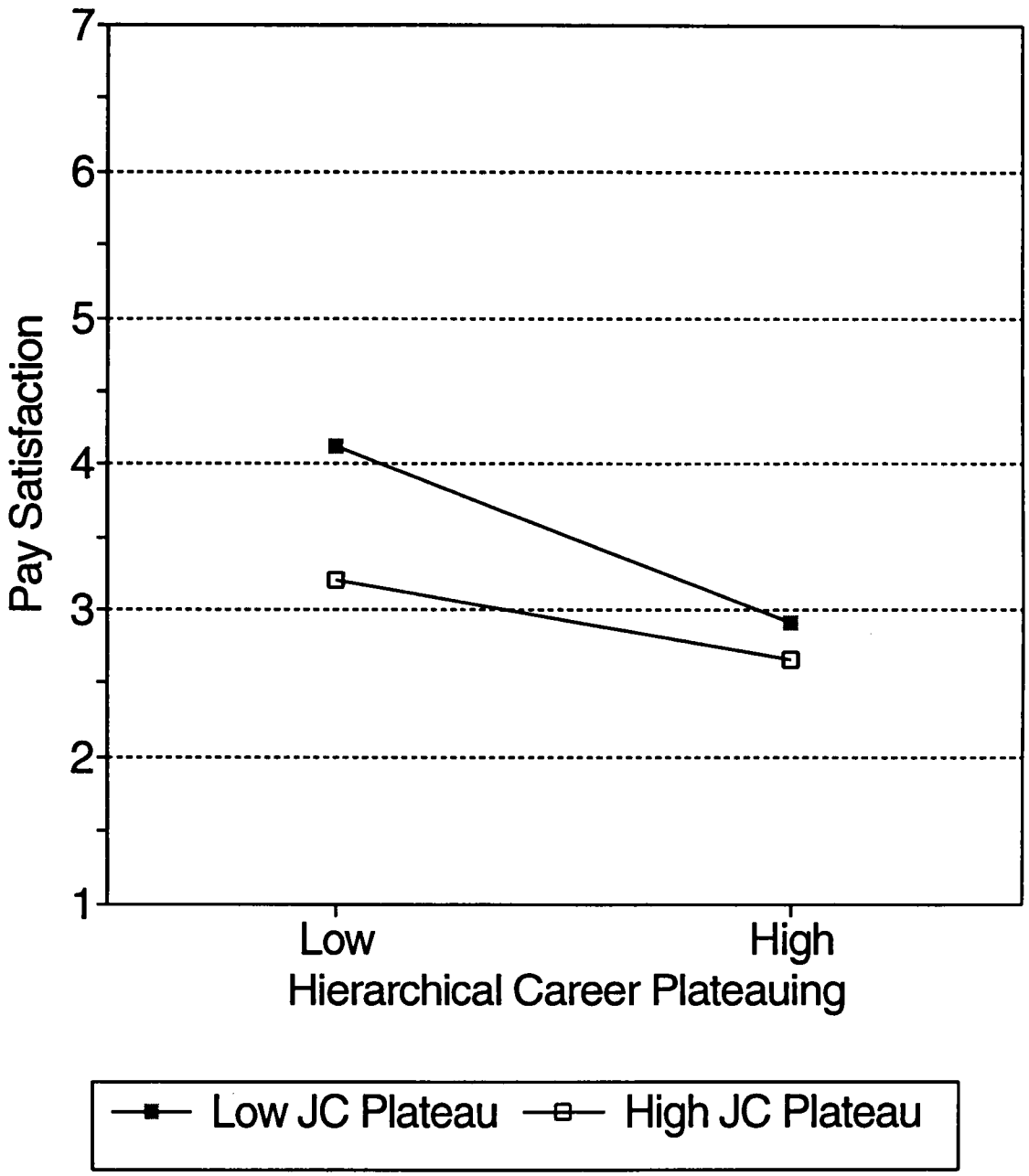


Figure 37. The Relationship Between Hierarchical Career Plateauing and Pay Satisfaction as Moderated by Job Content Career Plateauing.

Table 24. Hierarchical Multiple Regression Analyses: Age as a Potential Moderator Between Hierarchical Career Plateauing and Job Attitudes.

Dependent Variable	Independent Variable	Standardized Regression Weights Step 1	Step 2	Step 3	Step 4
Social Reward Satisfaction	Supervisor	-.06+	-.05	-.02	.02
	Facility	.03	.02	.01	.01
	Age		.13***	.17***	-.01
	Hierarchical CP			-.18***	-.38**
	Interaction Term				.30
	R^2 at each step:	.005	.023	.055	.057
	R^2 change:		.017***	.032***	.002
	Total Multiple R:	.239			F = 10.35***
Intrinsic Reward Satisfaction	Supervisor	-.17***	-.16***	-.10**	-.10**
	Facility	.05	.05	.03	.03
	Age		.05	.14***	-.01
	Hierarchical CP			-.42***	-.58***
	Interaction Term				.24
	R^2 at each step:	.032	.034	.202	.204
	R^2 change:		.002	.168***	.002
	Total Multiple R:	.451			F = 43.75***
Pay Satisfaction	Supervisor	-.22***	-.22***	-.17***	-.17***
	Facility	.01	.00	-.01	-.01
	Age		.04	.11***	.15
	Hierarchical CP			-.34***	-.30*
	Interaction Term				-.06
	R^2 at each step:	.049	.051	.157	.157
	R^2 change:		.001	.106***	.000
	Total Multiple R:	.396			F = 31.92***
Promotion Satisfaction	Supervisor	-.21***	-.21***	-.11***	-.11***
	Facility	.06+	.07*	.04+	.04+
	Age		-.03	.12***	.10
	Hierarchical CP			-.68***	-.70***
	Interaction Term				.03
	R^2 at each step:	.050	.050	.488	.488
	R^2 change:		.001	.438***	.000
	Total Multiple R:	.699			F = 163.36***
Overall Job Satisfaction	Supervisor	-.23***	-.22***	-.13***	-.14***
	Facility	.07*	.06+	.04	.03
	Age		.08*	.20***	.08
	Hierarchical CP			-.56***	-.69***
	Interaction Term				.20
	R^2 at each step:	.057	.063	.353	.354
	R^2 change:		.006*	.290***	.001
	Total Multiple R:	.595			F = 93.87***

+ $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$

Table 24. (continued)

Dependent Variable	Independent Variable	Standardized Regression Weights Step 1	Step 2	Step 3	Step 4
Organizational Commitment	Supervisor	-.23***	-.21***	-.14***	-.14***
	Facility	.14***	.12***	.11***	.10***
	Age		.15***	.26***	.00
	Hierarchical CP			-.48***	-.76***
	Interaction Term				.42*
	R^2 at each step:	.075	.098	.309	.314
	R^2 change:		.023***	.211***	.005*
	Total Multiple R:	.560			F = 78.26***
Number of Hours/ Week Worked	Supervisor	-.22***	-.21***	-.20***	-.21***
	Facility	-.04	-.05	-.05	-.06+
	Age		.08*	.09*	-.28*
	Hierarchical CP			-.04	-.43**
	Interaction Term				.60**
	R^2 at each step:	.049	.055	.057	.066
	R^2 change:		.006**	.002	.010**
	Total Multiple R:	.258			F = 11.89***
Employee Health Concerns	Supervisor	-.09**	-.11**	-.14***	-.14***
	Facility	-.04	-.02	-.02	-.02
	Age		-.14***	-.18***	-.23+
	Hierarchical CP			.19***	.13
	Interaction Term				.09
	R^2 at each step:	.010	.029	.062	.062
	R^2 change:		.019***	.033***	.000
	Total Multiple R:	.249			F = 11.28***
Intention to Quit	Supervisor	.18***	.16***	.10**	.10***
	Facility	-.11**	-.08*	-.06*	-.06+
	Age		-.23***	-.31***	.16
	Hierarchical CP			.41***	.92***
	Interaction Term				-.77***
	R^2 at each step:	.046	.096	.254	.271
	R^2 change:		.050***	.158***	.017***
	Total Multiple R:	.520			F = 63.28***

+ $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$

age increases, intent to quit tends to decrease. Another way to explain these findings would be to say that employees who perceive themselves to be hierarchically plateaued and who are also older employees will tend to report greater levels of organizational commitment, a greater number of hours worked per week, and a lower intention to quit. The findings illustrate partial support for hypothesis 14A.

Figure 38 illustrates the relationship between hierarchical career plateauing and organizational commitment as moderated by age. When perceptions of hierarchical career plateauing were lower, older employees reported slightly higher levels of organizational commitment than younger employees. As perceptions of career plateauing increased, older employees continued to report greater levels of organizational commitment than younger employees. The difference between older and younger employees in their reported organizational commitment increased when perceptions of hierarchical were greater.

The relationship between hierarchical career plateauing and number of hours worked per week as moderated by age is reported in Figure 39. When perceptions of hierarchical career plateauing are low, employees tended to work similar number of hours per week regardless of age. When perceptions of hierarchical career plateauing became greater, younger employees reported working fewer hours per week and older employees reported working more.

Figure 40 illustrates the relationship between hierarchical career plateauing and intent to quit as moderated by age. When perceptions of hierarchical career plateauing are lower, younger employees report a slightly higher intent to quit than older employees. With greater perceptions of hierarchical career plateauing, both older and younger employees tended to report greater intent to quit, but the difference was magnified. Younger employees reported a greater intent to quit than older employees when perceptions of hierarchical career plateauing were higher.

The results of hypothesis 14B are illustrated in Table 25. According to these results, the change in R^2 for the interaction term (i.e., age multiplied by job content career plateauing)

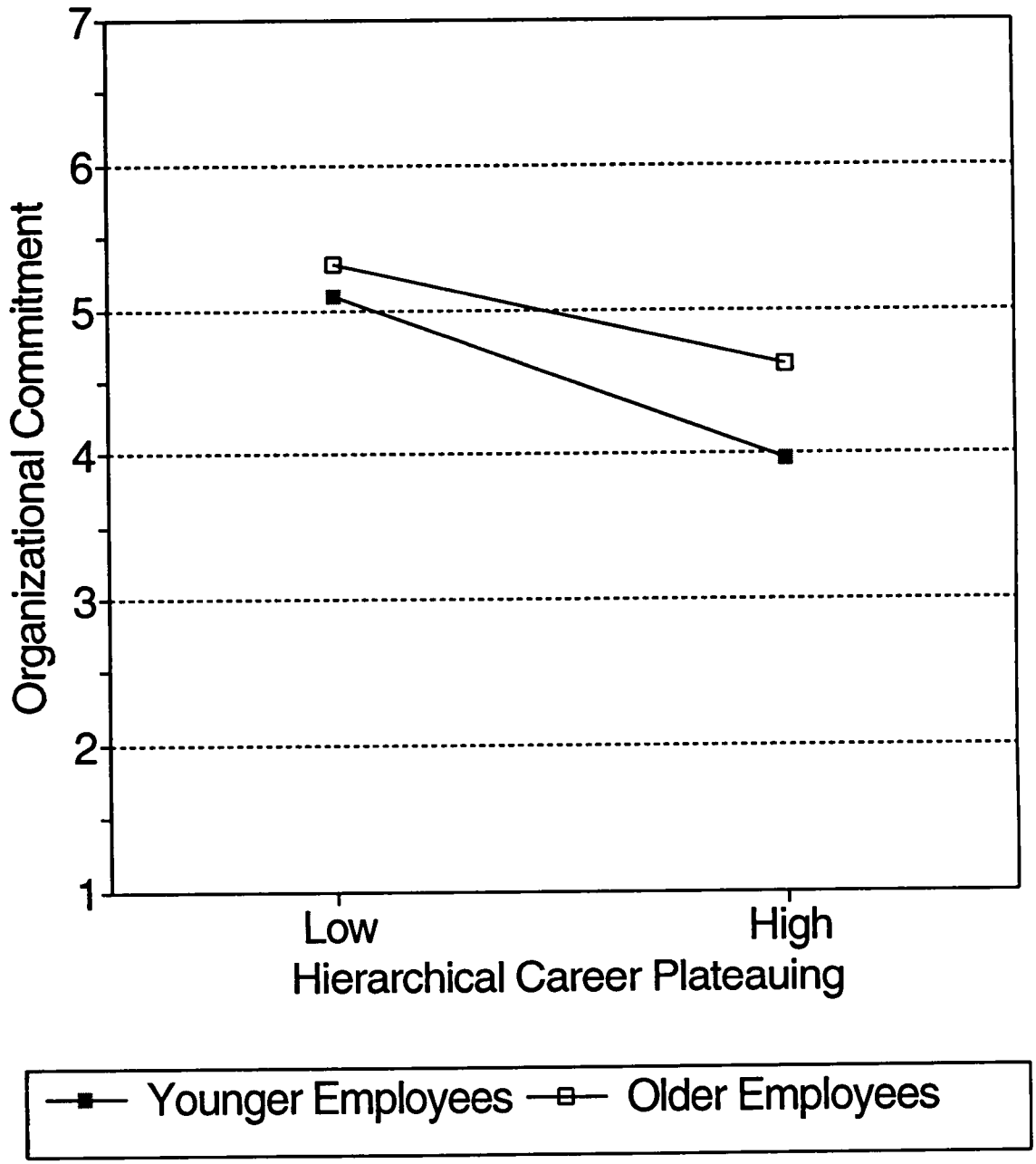


Figure 38. The Relationship Between Hierarchical Career Plateauing and Organizational Commitment as Moderated by Age.

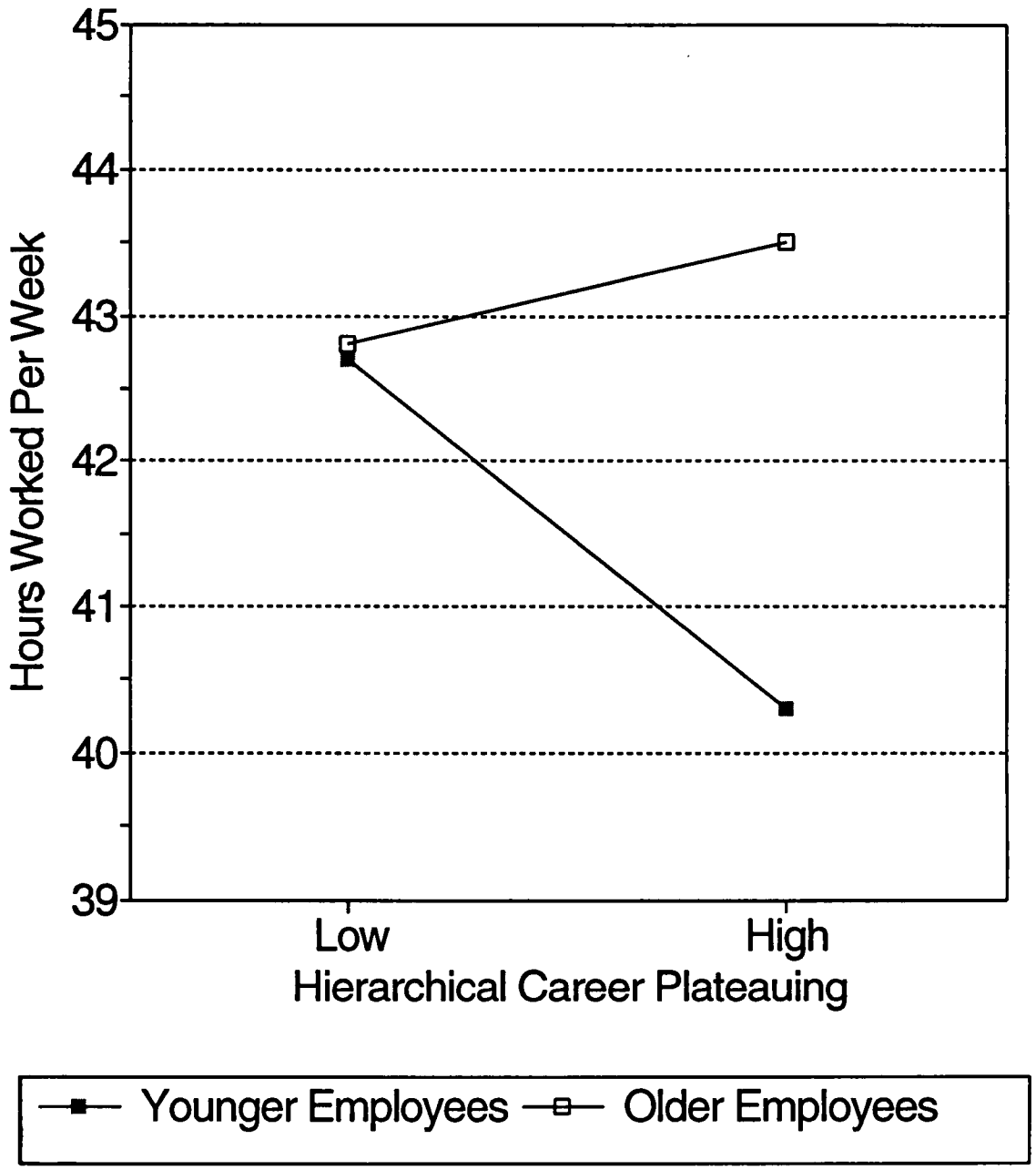


Figure 39. The Relationship Between Hierarchical Career Plateauing and Number of Hours Worked per Week as Moderated by Age.

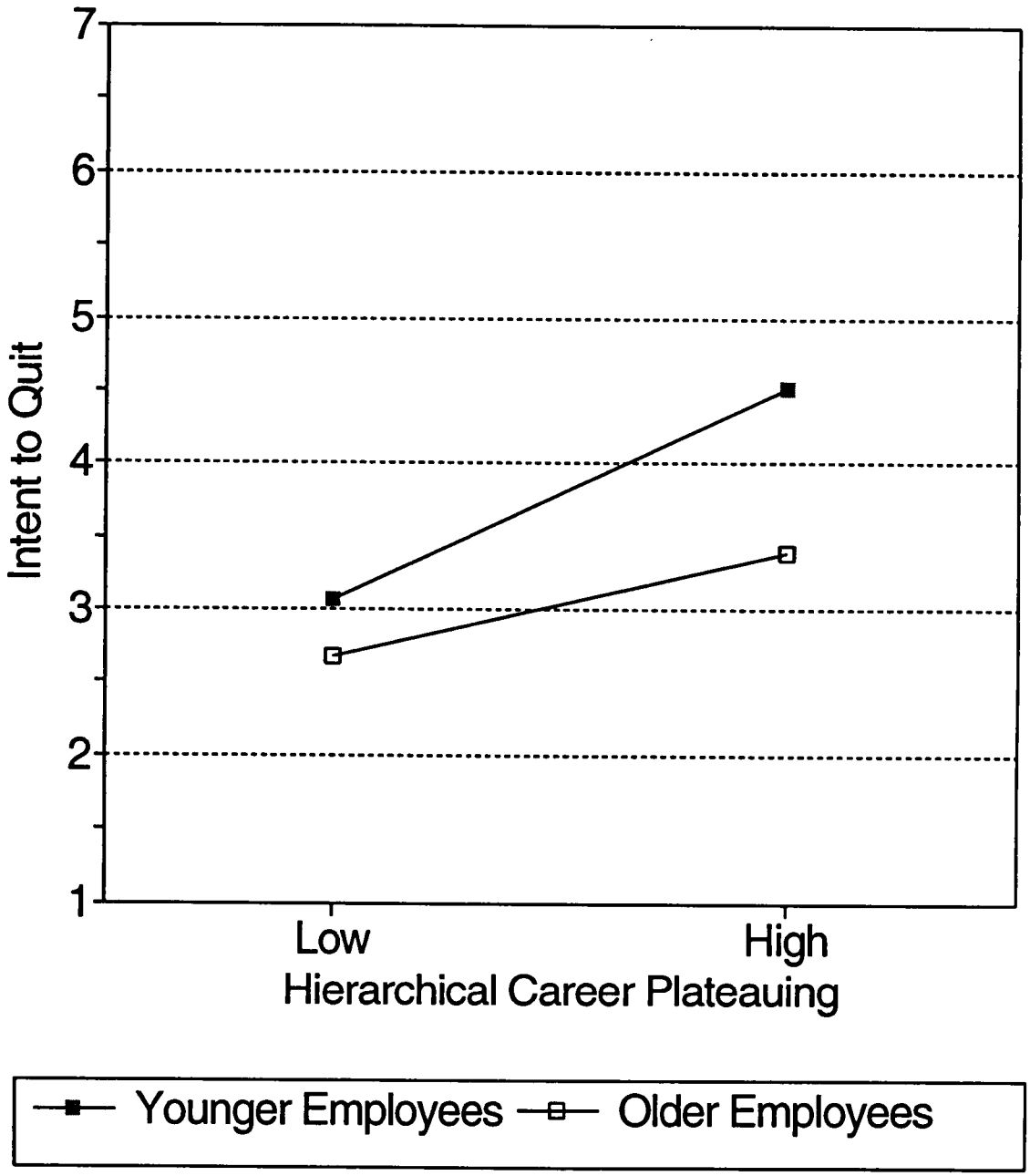


Figure 40. The Relationship Between Hierarchical Career Plateauing and Intent to Quit as Moderated by Age.

Table 25. Hierarchical Multiple Regression Analyses: Age as a Potential Moderator Between Job Content Career Plateauing and Job Attitudes.

Dependent Variable	Independent Variable	Standardized Regression Weights Step 1	Step 2	Step 3	Step 4
Social Reward Satisfaction	Supervisor	-.06+	-.05	.00	.00
	Facility	.03	.02	.01	.01
	Age		.13***	.13***	-.03
	Job Content CP			-.21***	-.45***
	Interaction Term				.29+
	R^2 at each step:	.005	.022	.062	.066
	R^2 change:		.017***	.040***	.004+
	Total Multiple R:	.256			F = 12.06***
Intrinsic Reward Satisfaction	Supervisor	-.17***	-.16***	-.01	-.01
	Facility	.05	.05	.03	.03
	Age		.05	.05+	-.04
	Job Content CP			-.61***	-.74***
	Interaction Term				.16
	R^2 at each step:	.031	.033	.384	.386
	R^2 change:		.002	.351***	.001
	Total Multiple R:	.620			F = 107.53***
Pay Satisfaction	Supervisor	-.22***	-.22***	-.16***	-.17***
	Facility	.01	.00	.00	.00
	Age		.04	.04	-.06
	Job Content CP			-.22***	-.37**
	Interaction Term				.18
	R^2 at each step:	.050	.051	.097	.098
	R^2 change:		.001	.046***	.001
	Total Multiple R:	.313			F = 18.68***
Promotion Satisfaction	Supervisor	-.21***	-.21***	-.11***	-.12***
	Facility	.06*	.07**	.06+	.06+
	Age		-.03	-.03	-.13
	Job Content CP			-.40***	-.56***
	Interaction Term				.19
	R^2 at each step:	.050	.050	.201	.202
	R^2 change:		.001	.150***	.002
	Total Multiple R:	.450			F = 43.40***
Overall Job Satisfaction	Supervisor	-.23***	-.22***	-.09**	-.10**
	Facility	.07*	.06+	.04	.04
	Age		.08*	.08**	-.10
	Job Content CP			-.50***	-.76***
	Interaction Term				.32*
	R^2 at each step:	.057	.063	.296	.300
	R^2 change:		.006*	.233***	.005*
	Total Multiple R:	.548			F = 73.51***

+ $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$

Table 25. (continued)

Dependent Variable	Independent Variable	Standardized Regression Weights Step 1	Step 2	Step 3	Step 4
Organizational Commitment	Supervisor	-.23***	-.21***	-.11***	-.11***
	Facility	.15***	.13***	.11***	.12***
	Age		.15***	.15***	.04
	Job Content CP			-.40***	-.56***
	Interaction Term				.20
	R^2 at each step:	.075	.096	.246	.247
	R^2 change:		.021***	.149***	.002
	Total Multiple R:	.497			F = 56.25***
Number of Hours/ Week Worked	Supervisor	-.22***	-.21***	-.18***	-.18***
	Facility	-.04	-.05	-.06+	-.06+
	Age		.08*	.08*	.07
	Job Content CP			-.10**	-.11
	Interaction Term				.01
	R^2 at each step:	.049	.055	.065	.065
	R^2 change:		.006*	.010***	.000
	Total Multiple R:	.255			F = 11.67***
Employee Health Concerns	Supervisor	-.09**	-.11**	-.11**	-.11**
	Facility	-.04	-.03	-.03	-.03
	Age		-.14***	-.14***	-.09
	Job Content CP			.00	.07
	Interaction Term				-.09
	R^2 at each step:	.011	.028	.028	.029
	R^2 change:		.018***	.000	.000
	Total Multiple R:	.170			F = 5.07***
Intention to Quit	Supervisor	.18***	.16***	.05+	.06*
	Facility	-.11**	-.08*	-.07*	-.07*
	Age		-.23***	-.22***	.08
	Job Content CP			.42***	.86***
	Interaction Term				-.54***
	R^2 at each step:	.046	.096	.260	.273
	R^2 change:		.050***	.165***	.013***
	Total Multiple R:	.523			F = 64.22***

+ $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$

was significant for two of the attitudinal variables and marginally significant for one of the variables. The interaction term was significant for overall job satisfaction and intent to quit ($p < .05$) and only slightly significant for social reward satisfaction ($p < .10$).

The standardized beta weight was positive for overall job satisfaction (.32) suggesting that for a given level of job content career plateauing, as age increases, overall job satisfaction also tends to increase. The standardized beta weight for intent to quit was negative (-.54) suggesting that holding career plateauing constant, as age increases, intent to quit decreases. In other words, employees who perceive themselves to be job content plateaued and who older will tend to report greater levels of overall job satisfaction and lower intent to quit.

The relationship between job content career plateauing and overall job satisfaction as moderated by age is illustrated in Figure 41. This figure shows that when perceptions of job content plateauing are lower, employees tend to report similar levels of overall job satisfaction, regardless of age. As perceptions of job content plateauing increase, older employees tend to report slightly higher overall job satisfaction than younger employees.

Figure 42 illustrates the relationship between job content plateauing and intent to quit as moderated by age. When perceptions of job content plateauing were low, younger employees reported slightly greater intent to quit than older employees. As perceptions of job content career plateauing increased, this difference became greater. Younger employees reported a greater level of intent to quit than older employees when perceptions of job content plateauing were greater.

The standardized beta weight for social reward satisfaction was positive (.29) suggesting that for a given level of job content career plateauing, as age increases, social reward satisfaction may increase slightly. Since this finding was only marginally significant, it is not illustrated. Overall, the findings demonstrate partial support for hypothesis 14B.

Summary

Two tables are provided in order to summarize the hypotheses under investigation. Table 26 lists each hypothesis and whether the hypothesis was supported, partially supported,

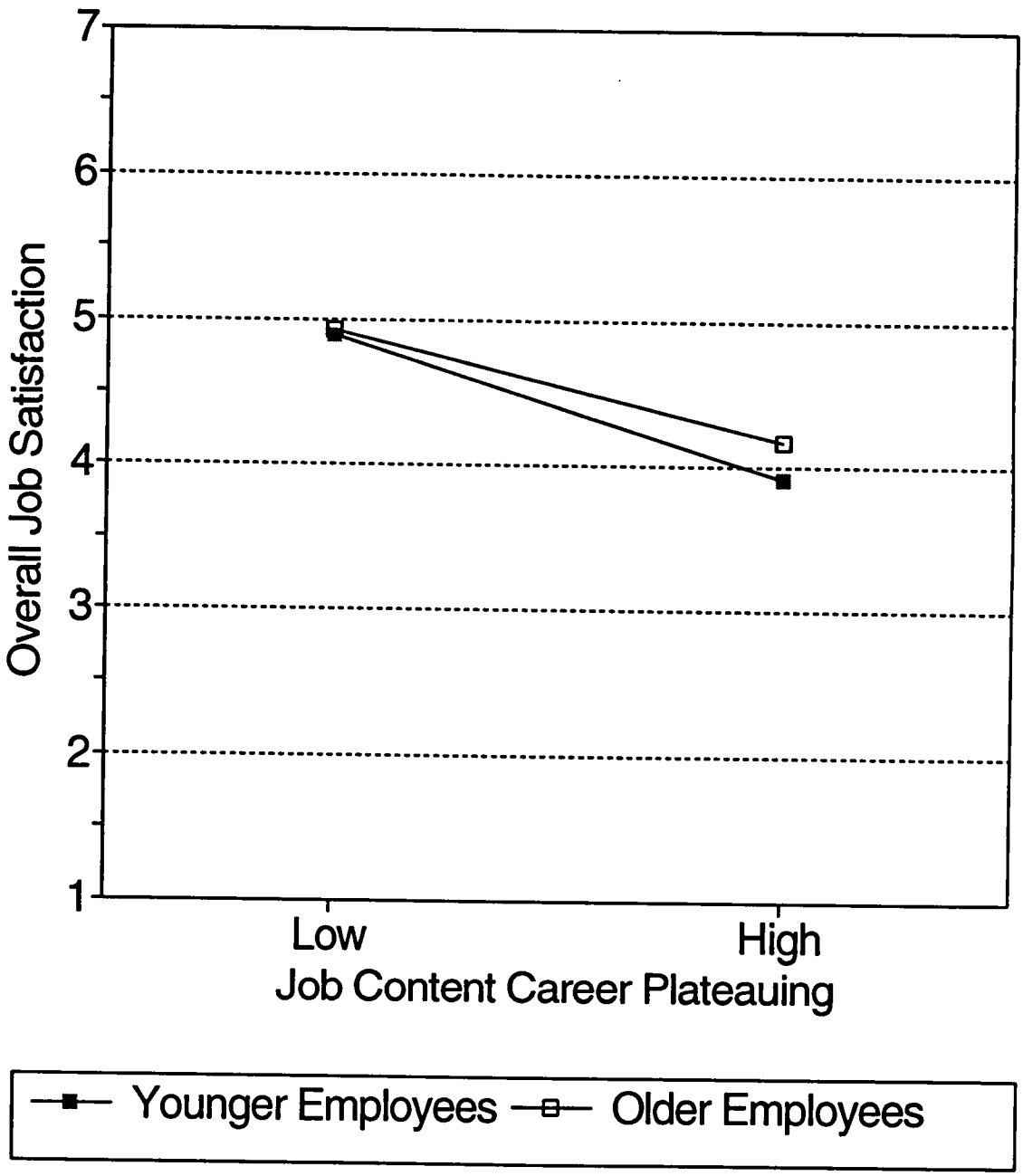


Figure 41. The Relationship Between Job Content Career Plateauing and Overall Job Satisfaction as Moderated by Age.

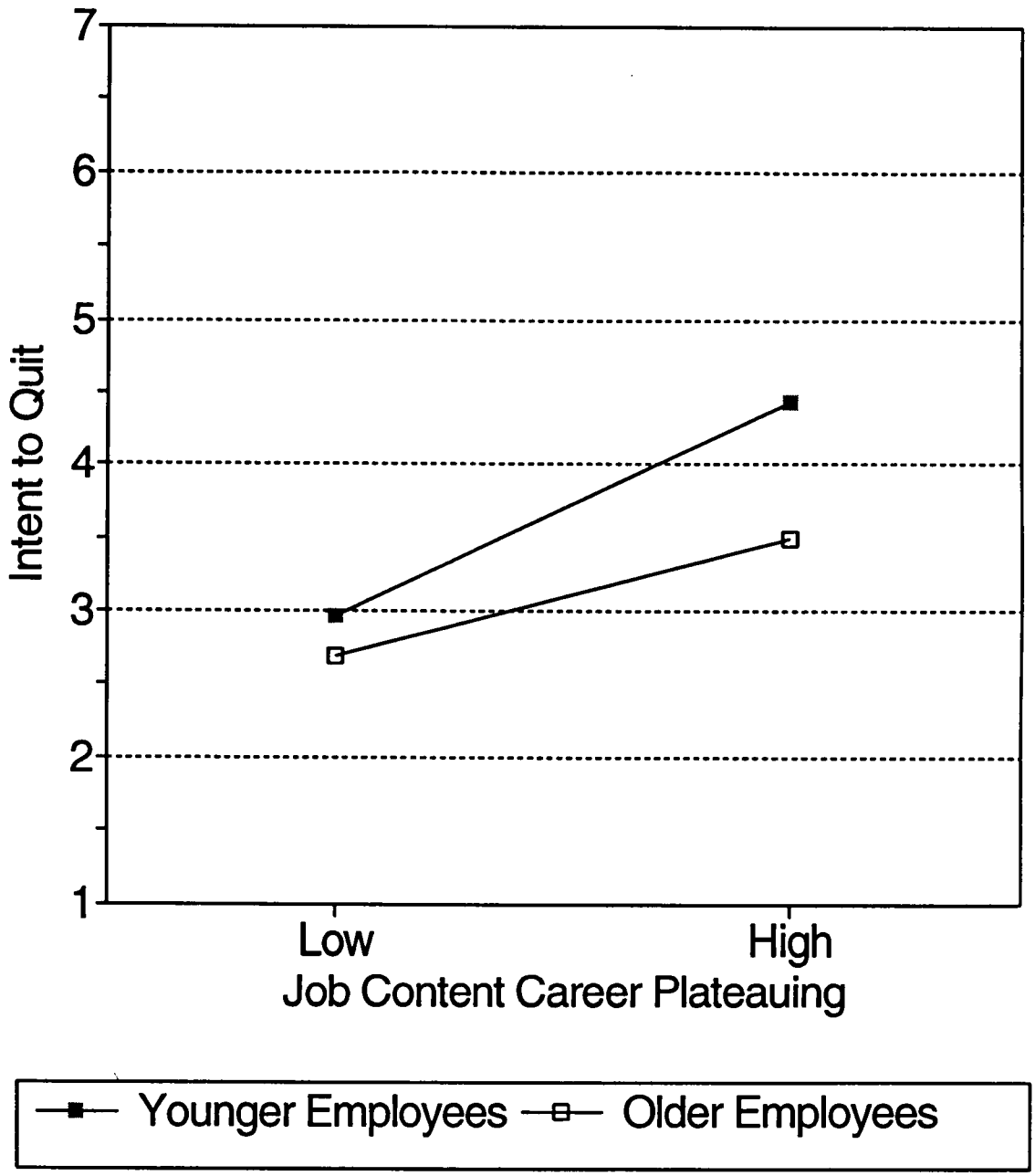


Figure 42. The Relationship Between Job Content Career Plateauing and Intent to Quit as Moderated by Age.

Table 26. Summary of Hypotheses.

	HYPOTHESIS	DEGREE OF SUPPORT
1A	Age and Career Plateauing	Partial Support
1B	Education Level and Career Plateauing	Supported
2A	Job Satisfaction and HCP	Supported
2B	Job Satisfaction and JCCP	Supported
3A	Organizational Commitment and HCP	Supported
3B	Organizational Commitment and JCCP	Supported
4A	Hours Worked/Week and HCP	Not Supported
4B	Hours Worked/Week and JCCP	Supported
5A	Job-related Health Concerns and HCP	Supported
5B	Job-related Health Concerns and JCCP	Not Supported
6A	Intent to Quit and HCP	Supported
6B	Intent to Quit and JCCP	Supported
7A	HCP Measure Accounting for Variance	Supported
7B	JCCP Measure Accounting for Variance	Supported
8A	Job Tenure as Moderator for HCP	Limited Support
8B	Job Tenure as Moderator for JCCP	Partial Support
9A	Promotion Aspiration as Moderator for HCP	Limited Support
9B	Promotion Aspiration as Moderator for JCCP	Partial Support
10A	Life Satisfaction as Moderator for HCP	Limited Support
10B	Life Satisfaction as Moderator for JCCP	Partial Support
11A	Employee Participation as a Moderator for HCP	Not Supported
11B	Employee Participation as a Moderator for JCCP	Partial Support
12A	Alternative Jobs as a Moderator for HCP	Not Supported
12B	Alternative Jobs as a Moderator for JCCP	Not Supported
13	JCCP as a Moderator for HCP	Limited Support
14A	Age as a Moderator for HCP	Partial Support
14B	Age as a Moderator for JCCP	Limited Support

Note:
"Supported" means that hypothesis was supported.
"Partial Support" means that hypothesis was supported for at least three outcome variables.
"Limited Support" means that hypothesis was supported for one or two outcome variables.
"Not Supported" means that the hypothesis did not receive support.

supported to a limited extent, or not supported at all. For example, when hierarchical career plateauing was found to be unrelated to the number of hours worked per week, hypothesis 4A was not supported. When a moderating variable was found to significantly moderate only one or two of the relationships under study, the hypothesis received "limited" support.

The results of the first set of hypotheses should be clear based on Table 26. The details of the hypotheses pertaining to the moderating variables are more complex. Therefore, additional summary information is provided in Table 27. More specifically, this table summarizes the results of the moderator investigation. If the moderator listed at the top of the column was significant for the relationship between career plateauing and the dependent variable listed in the first column, two "X's" are place in the column along with a plus (+) or a minus (-) sign. These symbols represent whether the relationship was positive or negative as indicated by the standardized regression weight. Relationships that were significant at the .10 level are noted with a single "X."

Additional Analyses

Several additional analyses were performed after the original hypotheses were examined. Using hierarchical multiple regression analysis, one of these analyses examined whether the perceptual measure of job content career plateauing would account for additional variance in the outcome measures when it was added to an equation consisting of the control variables (age, supervisory status, facility), job tenure, and hierarchical career plateauing. This analysis was performed in order to determine whether the job content career plateauing measure might account for variance that was not accounted for by the hierarchical plateauing measure. Milliman (1992a) had entered both hierarchical and job content career plateauing into a single regression equation and found that job content plateauing accounted for a significant amount of additional variance in the outcome variables he studied. The additional analyses performed here thus sought to replicate his findings.

Job content career plateauing was able to account for a significant amount of additional variance in each of the outcome measures with the exception of job related health

Table 27. A Summary of the Results of the Moderator Investigations.

HIERARCHICAL CAREER PLATEAUING

	Job Tenure	Promo Asp	Alt Jobs	Partici-pation	Age	Life Sat	JCCP
SOCSAT							
INTSAT	X +	XX -					
PAYSAT	X -					XX -	XX +
PROSAT							
JOBSAT							
ORGCOM					XX +		
HOURS	X +				XX +	X +	
HEALTH				X +			
INTOVER	XX -	XX +			XX -	X +	

JOB CONTENT CAREER PLATEAUING

	Job Tenure	Promo Asp	Alt Jobs	Partici-pation	Age	Life Sat
SOCSAT			X -		X +	XX +
INTSAT		XX -				
PAYSAT	XX +					XX -
PROSAT	XX +	XX -		XX -		XX -
JOBSAT	X +	XX -		XX -	XX +	
ORGCOM		X -				
HOURS						
HEALTH		XX +	X +	X +		
INTOVER	XX -	XX +		XX +	XX -	XX +

Note:

X Marginally significant at $p < .10$

XX Significant at $p < .05$

+/- Indicates direction of relationship

concerns. More specifically, after age, supervisory status, facility, job tenure, and hierarchical career plateauing were all entered into the equation, job content career plateauing was significantly related to social reward satisfaction (change in $R^2 = .020$, $p < .01$), intrinsic reward satisfaction (change in $R^2 = .218$, $p < .01$), pay satisfaction (change in $R^2 = .017$, $p < .01$), promotion satisfaction (change in $R^2 = .021$, $p < .01$), and overall job satisfaction (change in $R^2 = .098$, $p < .01$). In addition, job content career plateauing accounted for a significant amount of additional variance in organizational commitment (change in $R^2 = .055$, $p < .01$), number of hours worked per week (change in $R^2 = .007$, $p < .05$), and intention to quit (change in $R^2 = .086$, $p < .01$). The standardized regression weight for each of these variables was negative with the exception of employee intent to quit which had a positive regression weight. These findings concurred with those of Milliman (1992a), and suggest that even after entering a number of other variables into the equation, including the hierarchical career plateauing, job content career plateauing was negatively related to several employee attitudes and positively related to employee intent to quit.

A second set of analyses looked more closely at some of the demographic factors collected in the present study. More specifically, gender, supervisory status, and nursing were examined to determine whether the distribution of males and females across supervisory and nursing positions were related in some way. Two cross tabulations were performed, one for gender and supervisory status, and the other for gender and nursing. Significant chi-square analyses suggested that both the relationships between gender and supervisory status and gender and nursing were related. More specifically, males tended to hold a larger percentage of supervisory jobs than females (37% of male respondents held supervisory positions while 27% of female respondents held supervisory positions) (Chi-square: 6.997, $p = .008$). In addition, females tended to hold a greater percentage of nursing jobs than males (40% of female respondents held nursing positions, 10% of male respondents held nursing positions) (Chi-square: 50.595, $p = .000$).

Because of these differences, there was a need to determine whether the job attitudes under investigation might vary based on supervisory status, gender, and nursing classification. Since supervisory status was already used as a control variable throughout the study, it was not as much a concern as nursing and gender. These chi-square tests were thus followed up with regression analyses to examine whether nursing and/or gender might be related to the outcome variables included in the present study. In order to examine this possibility, regression analyses were performed that examined the relationship between each job attitude (as the dependent variable) and the demographic variables (i.e., age, supervisory status, facility, gender, nurse, and the interaction of nursing and gender) as the independent variables. The results suggested that both nursing status and gender were related to intrinsic job satisfaction, nursing status was related to promotion satisfaction, and gender was related to overall job satisfaction. More specifically, males reported greater levels of intrinsic and overall job satisfaction than females, and nurses reported greater intrinsic and promotion satisfaction than non-nurses.

Since these relationships may have had an effect on the analyses performed in the present study, several of the analyses were re-run taking this knowledge into account. More specifically, the analyses involving intrinsic job satisfaction, promotion satisfaction, and overall job satisfaction were re-examined. In the analyses involving intrinsic job satisfaction as the dependent variable, both nursing and gender were added as control variables. In the analyses investigating promotion satisfaction as the dependent variable, nursing was added as a control variable. Finally, in the analyses examining overall job satisfaction as the dependent variable, gender was added as a control variable.

Hierarchical multiple regression analyses were performed to examine the relationships between hierarchical career plateauing and intrinsic, promotion, and overall job satisfaction. After age, supervisory status, facility, nursing and gender were entered in the first step for intrinsic job satisfaction, hierarchical career plateauing was entered during the second step. For promotion satisfaction, age, supervisory status, facility, and nursing were entered in the

first step followed by hierarchical career plateauing in the second. For overall job satisfaction, age, supervisory status, facility, and gender were entered in the first step followed by hierarchical career plateauing. The results showed that hierarchical career plateauing was significantly related to intrinsic job satisfaction (change in $R^2 = .163$, $p < .01$), promotion satisfaction (change in $R^2 = .444$, $p < .01$), and overall job satisfaction (change in $R^2 = .287$, $p < .01$). In each case, the standardized regression weight was negative, suggesting a negative relationship between hierarchical career plateauing and each of these facets of satisfaction. In other words, as employees perceive themselves to be more hierarchically plateaued, they also tend to report lower levels of intrinsic, promotion, and overall job satisfaction.

Hierarchical multiple regression analyses were also performed to examine the relationships between job content career plateauing and these three facets of job satisfaction. After age, supervisory status, facility, nursing and gender were entered in the first step for intrinsic job satisfaction, job content career plateauing was entered during the second step. For promotion satisfaction, age, supervisory status, facility, and nursing were entered in the first step followed by job content plateauing in the second. For overall job satisfaction, age, supervisory status, facility, and gender were entered in the first step followed by job content career plateauing. The results showed that job content career plateauing was significantly related to intrinsic job satisfaction (change in $R^2 = .346$, $p < .01$), promotion satisfaction (change in $R^2 = .164$, $p < .01$), and overall job satisfaction (change in $R^2 = .230$, $p < .01$). Again, the standardized regression weights were negative, suggesting negative relationships between job content career plateauing and intrinsic, promotion, and overall job satisfaction. In other words, as employees perceive themselves to be more job content plateaued, they also tend to report lower levels of these facets of job satisfaction.

Another set of analyses were performed in order to re-examine the hypotheses pertaining to the ability of the perceptual measures of career plateauing to account for additional variance in the outcome measures over the variance accounted for by job tenure alone. In order to examine these hypotheses, the hierarchical multiple regression analyses

were re-run including nursing and/or gender as control variables (i.e., in step one) where appropriate.

Even with these additional control variables, the hierarchical career plateauing measure still accounted for a significant amount of additional variance in intrinsic job satisfaction (change in $R^2 = .161$, $p < .01$), promotion satisfaction (change in $R^2 = .441$, $p < .01$), and overall job satisfaction (change in $R^2 = .286$, $p < .01$). The results were similar for the analyses involving job content career plateauing with this perceptual measure of career plateauing accounting for a significant amount of additional variance in intrinsic job satisfaction (change in $R^2 = .353$, $p < .01$), promotion satisfaction (change in $R^2 = .181$, $p < .01$), and overall job satisfaction (change in $R^2 = .255$, $p < .01$).

These analyses went one step further in examining the usefulness of the perceptual measures. As reported in the first set of additional analyses above, hierarchical multiple regression equations were run for each dependent variable, entering the control variables, job tenure, and hierarchical career plateauing before adding the measure of job content career plateauing into the equations. These analyses were also re-analyzed using nursing and/or gender as an additional control variable. The results showed that job content career plateauing accounted for a significant amount of additional variance in each of the three outcome measures. More specifically, job content career plateauing accounted for additional variance in intrinsic job satisfaction (change in $R^2 = .218$, $p < .01$), promotion satisfaction (change in $R^2 = .027$, $p < .01$), and overall job satisfaction (change in $R^2 = .096$, $p < .01$).

The addition of nursing and/or gender as control variables in the analyses mentioned thus far did not have a great effect on the results of the analyses. However, it is important to recognize the complexities that arise when trying to identify demographic factors and their relationships to the variables under investigation. A number of differences were found when these additional controls were added to the hierarchical regression equations examining the moderating variables.

When each of the potential moderating variables was re-examined (for the dependent variables of intrinsic job satisfaction, promotion satisfaction, and overall job satisfaction) using the additional control variables, several differences became apparent. As a reminder, nursing and gender were added as control variables in the analyses pertaining to intrinsic job satisfaction, nursing was added as a control variable for promotion satisfaction, and gender was added to equations dealing with overall job satisfaction as the dependent variable. Each moderator will be discussed below along with the changes that occurred when these variables were added as controls.

Job Tenure. In the previous analyses, the relationship between hierarchical career plateauing and intrinsic job satisfaction was moderated only marginally ($p < .10$) by job tenure. When nursing and gender were added as control variables, the significance of job tenure as a moderator increased to $p < .05$ (change in $R^2 = .006$, $p < .05$). Job tenure as a moderator of the relationships between hierarchical career plateauing and promotion and overall job satisfaction remained non-significant.

Regarding job content career plateauing, job tenure remained non-significant as a moderator between this type of career plateau and intrinsic job satisfaction. Job tenure remained significant as a moderator between job content career plateauing and promotion satisfaction, while it became more significant in the relationship between job content career plateauing and overall job satisfaction (change in $R^2 = .004$, $p < .05$). This relationship had been marginally significant at $p < .10$ but became significant at the $p < .05$ level.

Promotion Aspiration. When nursing and/or gender were added as control variables for the analyses that examined promotion aspiration as a potential moderating variable, the significance of the results remained the same for each of the dependent variables under study for each type of career plateauing. The addition of nursing and/or gender as control variables did not seem to greatly affect these analyses.

Life Satisfaction. A number of changes were found in the analyses pertaining to life satisfaction. More specifically, when nursing and/or gender were added as control variables,

several variables became significant that previously showed no significance, and one of the variables that was previously significant became non-significant.

Examining the life satisfaction as a moderator in the relationships between hierarchical career plateauing and the three facets of job satisfaction, the results became significant for intrinsic job satisfaction (change in $R^2 = .026$, $p < .01$), promotion satisfaction (change in $R^2 = .002$, $p < .05$), and overall job satisfaction (change in $R^2 = .027$, $p < .01$). The standardized regression weights for each of these relationships were positive, suggesting that employees at a hierarchical career plateau who report greater levels of life satisfaction also tend to report greater levels of intrinsic, promotion, and overall job satisfaction. These results might suggest a spillover of employee life satisfaction into facets of their jobs in spite of the perception of career plateauing.

Looking at life satisfaction as a moderator in the relationships between job content career plateauing, the results became significant for intrinsic job satisfaction (change in $R^2 = .022$, $p < .01$), and overall job satisfaction (change in $R^2 = .020$, $p < .01$). The standardized regression weights for these two relationships were positive, suggesting that employees at a job career plateau who report greater levels of life satisfaction also tended to report greater levels of intrinsic and overall job satisfaction. Again, these results might suggest a spillover of employee life satisfaction into facets of their jobs in spite of the perception of career plateauing. In addition, the results for promotion satisfaction which had been significant became non-significant with the addition of nursing as a control variable.

Participation in Employee Development Opportunities. As in the case of life satisfaction, when nursing and/or gender were added as control variables, employee participation became a significant moderator for several relationships. More specifically, employee participation as a moderator of the relationships between hierarchical career plateauing and the three facets of job satisfaction became significant for intrinsic job satisfaction (change in $R^2 = .023$, $p < .01$), promotion satisfaction (change in $R^2 = .005$, $p < .05$), and overall job satisfaction (change in $R^2 = .004$, $p < .05$). The standardized regression

weights in each of these cases was positive, suggesting that employees at a hierarchical career plateau who report greater participation in developmental activities also tend to report greater levels of intrinsic, promotion, and job satisfaction.

When employee participation was re-examined as a moderator for the relationships between job content career plateauing and the three facets of satisfaction, it became significant for the relationship between job content career plateauing and intrinsic job satisfaction (change in $R^2 = .008$, $p < .05$). The standardized regression weight was positive, suggesting that employees at a job content career plateau who report greater levels of participation will also report greater levels of intrinsic job satisfaction. Promotion satisfaction remained significant, and overall job satisfaction became non-significant.

Alternative Job Opportunities. When alternative job opportunities was re-examined as a potential moderator between career plateauing (hierarchical and job content) and the three facets of job satisfaction, alternative job opportunities became significant for two of the variables, promotion satisfaction and overall job satisfaction.

Alternative job opportunities became a significant moderator for the relationships between hierarchical career plateauing and promotion satisfaction (change in $R^2 = .002$, $p < .05$) and overall job satisfaction (change in $R^2 = .005$, $p < .05$). The standardized regression weights were negative in each case, suggesting that employees who are hierarchically career plateaued and who also report greater alternative job opportunities will report lower promotion and overall job satisfaction. In other words, employees who are plateaued and who believe there may be other jobs that they could get report lower levels of promotion and overall job satisfaction in their current organization.

Alternative job opportunities also became a significant moderator for the relationships between job content career plateauing and promotion satisfaction (change in $R^2 = .018$, $p < .001$) and overall job satisfaction (change in $R^2 = .018$, $p < .01$). The standardized regression weights were negative for both variables, suggesting that employees who are job content career plateaued and who also report greater alternative job opportunities will report lower

promotion and overall job satisfaction. In other words, employees who are job content plateaued and perceive other jobs that they could get report lower levels of promotion and overall job satisfaction.

Job Content Career Plateauing. Job content career plateauing was re-examined as a potential moderator between hierarchical career plateauing and three facets of job satisfaction. With the addition of nursing and/or gender as control variables, job content plateauing significantly moderated each of these relationships. More specifically, job content career plateauing became a significant moderator for the relationship between hierarchical career plateauing and intrinsic job satisfaction (change in $R^2 = .185$, $p < .01$), promotion satisfaction (change in $R^2 = .011$, $p < .01$), and overall job satisfaction (change in $R^2 = .055$, $p < .01$). The standardized regression weights for each of these relationships was negative, suggesting that employees perceiving themselves as both hierarchically and job content career plateaued will report lower levels of intrinsic, promotion, and job satisfaction.

Age. When nursing and/or gender were added as control variables for the analyses that examined age as a potential moderating variable, the significance of the results remained the same for each of the dependent variables under study for hierarchical and job content career plateauing. The addition of nursing and/or gender as control variables did not seem to greatly affect these analyses.

Summary. It is evident that the complex relationships among variables can be greatly influenced by the presence or absence of certain demographic factors when they are used as control variables. It is interesting to note that some of the moderating variables in the present study became more significant with the addition of nursing and/or gender as control variables while others became less significant. Additional research is obviously needed to sort out some of the mixed results. More attention should be paid to demographic factors in the investigation of career plateauing and other attitudinal variables.

CHAPTER V

DISCUSSION

The purpose of the current study was to extend previous research in the area of career plateauing. More specifically, this study sought to investigate the relationships between hierarchical and job content career plateauing and job attitudes using perceptual measures of career plateauing. In addition, the utility of the use of subjective measures of career plateauing in place of the more traditional measure of plateauing (i.e., job tenure) was examined. Finally, this study examined potential moderators of the relationships between both hierarchical and job content career plateauing and a number of attitudinal variables. In this chapter, the results of the hypotheses tests and additional analyses are discussed along with limitations to the present study and theoretical and practical implications of the results. Areas identified as having potential for future research are noted throughout.

Discussion of Hypotheses Tests

Demographic Factors Related to Career Plateauing

Age. The first hypothesis examined the relationships between both hierarchical and job content career plateauing and two potential antecedents of career plateauing, age and education level. The results showed age to have a significant positive relationship with hierarchical career plateauing, but not with job content career plateauing. These results suggest that as people get older, they tend to report greater perceptions of hierarchical career plateauing. Perceptions of job content career plateauing, however, do not appear to be related to employee age for the present sample.

The significant relationship found between age and hierarchical career plateauing supports earlier research. Savery (1989) and Slocum et al. (1985) both found that hierarchically plateaued employees, operationalized by job tenure, tended to be older than nonplateaued employees. In studies using a one-item measure of plateauing, Near (1983, 1985) also reported a positive relationship between hierarchical career plateauing and age. Orpen (1986), however, found no significant relationship between age and hierarchical career

plateauing in his study. He had operationalized career plateauing in terms of both job tenure and a comparison of the employee's tenure to the job tenure of individuals who have held the same positions in the past. In the more recent studies using subjective measures of plateauing, Chao (1990), Milliman (1992a), and Tremblay et al. (1992) all report positive relationships between age and career plateauing.

Milliman (1992a) was the only previous researcher to examine job content plateauing. The results of the present study regarding the relationship between job content career plateauing and age concur with Milliman's (1992a) findings. These studies agree that there does not appear to be a relationship between job content career plateauing and employee age. Older employees do not tend to report greater perceptions of job content career plateauing than younger employees.

Education Level. Results showed education level to have a significant negative relationship with both types of career plateauing. These results suggest that employees with lower levels of education reported greater perceptions of hierarchical and job content career plateauing than employees who have obtained higher educational levels. Perhaps employees performing jobs requiring higher educational levels are at higher levels of the organization and are presented with further opportunities for promotion. They may also be given more challenges by the nature of their work than employees in jobs requiring lesser education. Employees in these higher level jobs may thus have less reason to perceive either hierarchical or job content career plateaus.

Regarding hierarchical career plateauing, the results of the present study are consistent with findings by Milliman (1992a) and Near (1983, 1985). These researchers noted significant negative relationships between hierarchical career plateauing and the level of education attained. These findings, however, are contrary to Orpen's (1986) research which found no significant relationship between hierarchical career plateauing and education level.

Nonetheless, more evidence has been gathered that suggests that employees who have obtained higher levels of education tend to report lower perceptions of hierarchical career

plateauing than employees reporting lower levels of education. Perhaps this finding could be explained by the types of career paths that individuals may tend to follow when they have obtained higher levels of education. These employees may work their way up to higher level or higher status positions due to the fact that they are qualified, by nature of their education, for such positions. Individuals with lower levels of education may not be qualified to move up to higher level or higher status positions within an organization, thus leaving them in the same positions for years and susceptible to feeling hierarchically plateaued.

Regarding job content plateauing, the findings of the present study are different from those of Milliman (1992a), who found no significant relationship between education level and this type of plateau. Perhaps the relationship between education level and job content career plateauing is partially determined by the industry in which the study is conducted. For example, industries that hire people to perform mundane tasks (e.g., manufacturing) may not require employees to have higher levels of education. Other industries that provide greater variety in the work environment (e.g., marketing/advertising, computers) may require entry level employees to have some type of advanced degree. Another factor that may influence the relationship between career plateauing and education level may be the extent to which an organization strives to enrich all jobs regardless of the educational requirements required for the jobs. More specifically, fewer employees may report feeling job content career plateaued if their jobs are enriched to some extent.

It may be possible that the increased variety and/or responsibility of jobs requiring higher levels of education might help to alleviate perceptions of job content career plateauing. Similarly, employees in positions requiring lower levels of education may find themselves doing similar tasks from day to day and lacking the opportunity to learn and grow on the job. The findings of the present study support these suggestions, as there was a significant relationship between education level and job content career plateauing.

Future research should continue to explore the relationships between demographic factors and perceptions of career plateauing. Perhaps these demographic factors are related to

perceptions of plateauing, or perhaps they are related to the actual end of promotional opportunities within an organization (e.g., as judged by job tenure or supervisory ratings). Variables such as race and gender might be included in future research to examine their relationship to perceived and actual career plateauing. Such research might lend support to the existence of a perceived or actual "glass ceiling" in organizations (Solomon, 1990).

Additional factors might also be explored as potential antecedents to career plateauing. For example, a number of individual, organizational, position, and environmental factors were included in Figure 6. Several of the individual and position factors (e.g., skills and abilities, performance, motivation, career field, pay) could be included in survey research conducted within a single organization. Other factors (e.g., organizational structure and type, human resource practices, economic conditions) might be more readily examined by distributing a number of surveys across several diverse organizations.

Relationships Between Job Attitudes and Career Plateauing

Hypotheses two through six examined the relationships of hierarchical and job content career plateauing and a number of job attitudes. These attitudes included job satisfaction (overall and facet satisfaction), organizational commitment, number of hours worked per week, employee health concerns, and intention to quit. The discussion that follows will first address findings of hypotheses 2a, 3a, 4a, 5a, and 6a, which examined the relationships between hierarchical career plateauing and job attitudes. The hypotheses pertaining to job content career plateauing and job attitudes (i.e., hypotheses 2b, 3b, 4b, 5b, and 6b) will then be discussed.

Factors Related to Hierarchical Career Plateauing. Hypothesis 2a examined the relationships between hierarchical career plateauing and facets of job satisfaction. Even after controlling for age, supervisory status, and facility, significant negative relationships were found between each facet of satisfaction under investigation (i.e., social reward satisfaction, intrinsic reward satisfaction, pay satisfaction, promotion satisfaction, and overall job satisfaction) and hierarchical career plateauing. In other words, the more hierarchically

plateaued employees feel, the less satisfaction they tend to report in terms of social rewards, intrinsic rewards, pay, promotion, and overall satisfaction.

The results of the present study add support to the findings of some of the more recent plateauing research which has examined hierarchical career plateauing using perceptual measures. For example, Ettington (1992) and Tremblay et al. (1992) both found significant negative relationships between co-worker satisfaction (i.e., social reward satisfaction) and career plateauing, and Chao (1990) found a significant negative relationship between intrinsic satisfaction and career plateauing. Similarly, Milliman (1992a, 1992b), and Tremblay et al. (1992) found significant negative relationships between pay satisfaction and hierarchical career plateauing, while Ettington (1992) and Milliman (1992a, 1992b) found significant negative relationships between promotion satisfaction and career plateauing. In addition, Ettington (1992), Milliman (1992a, 1992b), and Tremblay et al. (1992) all found significant negative relationships between overall job satisfaction and career plateauing.

The present findings support hypothesis 2a which suggested that facets of job satisfaction are negatively related to hierarchical career plateauing. This finding makes intuitive sense, but at one point, there was less empirical support for such a relationship. For example, in earlier research on career plateauing, the results of Near (1983, 1985) and Savery (1989) were not significant when they examined the relationship of hierarchical career plateauing and overall job satisfaction. These findings may still be considered somewhat inconclusive given the fact that Ettington (1992) found no significant relationship between pay satisfaction and career plateauing in her more recent study that made use of a subjective measure of career plateauing. Future research performed in a variety of settings with different populations may continue to add support to the present findings.

Hypothesis 3a examined the relationship between hierarchical career plateauing and organizational commitment. After controlling for age, supervisory status, and facility, a significant negative relationship was found between organizational commitment and

hierarchical career plateauing. In other words, employees perceiving themselves as more plateaued (hierarchically) also tended to report lower levels of organizational commitment.

The relationship detected between organizational commitment and hierarchical career plateauing is consistent with research conducted by Ettington (1992) and Milliman (1992a, 1992b). In addition, these findings are similar to those of Stout et al. (1988), who found that employees plateaued throughout their three year longitudinal study reported lower levels of organizational commitment at the end of their three year study than they had at the beginning of the research.

Hypothesis 4a investigated the relationship between hierarchical career plateauing and the number of hours employees reported working per week. The results of the present study indicated that hierarchical career plateauing was not significantly related to the number of hours worked per week after controlling for age, supervisory status, and facility.

Although this research had hypothesized that an individual perceiving him or herself to be hierarchically career plateaued might work fewer hours during the week than an employee who does not perceive a plateau, the present study found no such relationship. While the results of the present study contradict findings by Gerpott and Domsch (1987), who used a job tenure measure of plateauing, they are consistent with Milliman's (1992a, 1992b) findings. The number of hours an employee works per week do not seem to be related to whether or not the employee feels hierarchically career plateaued. Perhaps employees who perceive themselves as hierarchically plateaued still recognize the need to put in the required number of hours to get their jobs done.

It might also be helpful to realize that the measure of the number of hours worked per week was a self report measure. Employees were asked to estimate the number of hours they typically spend working each week. This type of measure may not be as accurate as a more objective measure that could be collected from looking at time cards or observing what time employees typically arrive at and leave work. In addition, employees may have interpreted the question differently. While the question was defined so that respondents were to include

all work hours, some employees may have written only the number of hours they spend at work, while others may have included job-related work that they perform at home. Future research should include alternate operationalizations of the number of hours employees work per week to help clarify the relationship between hierarchical career plateauing and the amount of time employees spend working each week.

Hypothesis 5a addressed the relationships between hierarchical career plateauing and employee health concerns (i.e., job-induced tension). After controlling for age, supervisory status, and facility, a significant positive relationship was found between hierarchical career plateauing and job-related health concerns. In other words, individuals who perceived themselves to be hierarchically plateaued also tended to report greater incidence of job-induced tension. For example, employees perceiving themselves as hierarchically plateaued typically reported working under a great deal of tension, feeling anxious as a result of their jobs, and feeling nervous before attending meetings in the organization.

Very few studies have examined the relationship between hierarchical career plateauing and job-related health concerns. The studies that have included some type of health measure have yielded contradictory results. Near (1983, 1985) and Savery (1989), for example, both reported that plateaued managers tended to have more physical health problems than their nonplateaued counterparts, while Burke (1989) found no significant relationship between career plateauing and physical health.

The present study, however, did not assess physical symptoms. Rather than focusing on overall physical health, the present study focused more specifically on job-induced tension. In addition, the present study was the first to examine the relationship between these job-related health concerns and a subjective measure of career plateauing. The results indicate that the relationship between hierarchical career plateauing and job-induced tension may have potential for future study. It appears that perceptions of reaching a hierarchical career plateau may be related to employee perceptions of job-induced tension. Perhaps this relationship is due to an increased amount of stress or anxiety perceived by employees who do not believe

they will move higher within the organization. Alternately, employees who feel stuck in their present positions may still be hoping for promotional opportunities, and thus place an increased amount of stress upon themselves to perform well. Future research could serve to replicate whether there may, indeed be a relationship between hierarchical career plateauing and job-induced tension. Future research might also examine the causality of this relationship.

Hypothesis 6a investigated the relationships between hierarchical career plateauing and intention to quit. As expected, a significant positive relationship was found between this type of career plateauing and employee intent to quit. This relationship was found even after controlling for age, supervisory status, and facility. Employees who perceive themselves as career plateaued in terms of organizational level also tend to report greater intentions of quitting the organization. This finding could have serious implications for organizations as they strive to maintain their most talented employees in an era that awards fewer promotional opportunities.

The findings of the present research replicate those of Milliman (1992a, 1992b) and Tremblay et al. (1992), who both found a positive relationship between hierarchical career plateauing and intent to quit. The findings are also similar to those of Burke (1989) who found plateaued police officers to be more likely to quit their organization, and Stout et al. (1988) who found that individuals who remained plateaued throughout their longitudinal study reported a greater intention to quit at the second time of measurement. The findings of the present study seem to contradict Slocum et al.'s (1985) work, however, which found plateaued workers were actually less likely to leave their organizations. In addition, Veiga's (1981) research found no significant relationship between career plateauing and intent to quit. Future research on the relationship between hierarchical career plateauing and employee intention to quit might add evidence to the more recent findings that suggest a positive relationship between the two variables.

Factors Related to Job Content Career Plateauing. Hypothesis 2b examined the relationships between job content career plateauing and facets of job satisfaction. Controlling

for age, supervisory status, and facility, significant negative relationships were found between each facet of satisfaction and job content career plateauing. In other words, the more plateaued employees feel in terms of job content, the less satisfaction they tend to report in terms of social rewards, intrinsic rewards, pay, promotion, and overall satisfaction. The findings of the present study are consistent with Milliman's (1992a) research which included promotion, pay, and overall job satisfaction as dependent variables. As there is limited research on job content career plateauing, future research should continue to investigate the relationship between this type of career plateau and facets of job satisfaction.

Hypothesis 3b examined the relationship between job content career plateauing and organizational commitment. Again, age, supervisory status, and facility were controlled for. A significant negative relationship was found between organizational commitment and job content plateauing. In other words, employees perceiving themselves as more job content career plateaued also tended to report lower levels of organizational commitment.

The relationship found between organizational commitment and job content career plateauing is consistent with the findings of Milliman's (1992a) research. More specifically, both the present study and Milliman's (1992a) research found a negative relationship between organizational commitment and job content career plateauing.

Hypothesis 4b investigated the relationship between job content career plateauing and the number of hours employees reported working per week. After controlling for age, supervisory status, and facility, the relationship between job content career plateauing and number of hours worked per week was significant. The results showed a negative relationship between job content career plateauing and number of hours worked per week. These results suggest that as employees perceive themselves to be more plateaued in terms of job content, they tend to work fewer hours per week than employees who do not perceive a job content career plateau.

This finding is consistent with Milliman's (1992a) research. Both the present study and Milliman's (1992a) research found that people who perceive themselves as career

plateaued in terms of job content tend to work fewer hours per week than individuals who are not job content plateaued. Perhaps this relationship is due to the fact that employees at a job content plateau may become bored with their jobs. They may tend to watch the clock and leave work promptly, or even a little early, rather than to put in any extra time needed to finish certain job tasks. Alternately, given the lack of challenge in their jobs, these employees may be more interested in other parts of their lives. Future research examining career plateauing and its relationship to work and nonwork issues could more directly examine this possibility.

Hypothesis 5b examined the potential relationship between job content career plateauing and employee health concerns (i.e., job-induced tension). The relationship between job content career plateauing and job-induced tension was not found to be significant after controlling for age, supervisory status, and facility. Previous studies had not examined the relationship between job content plateauing and job-induced tension. Future research should re-examine this relationship in an attempt to replicate or contradict the current findings.

Hypothesis 6b investigated the relationship between job content career plateauing and intention to quit. As hypothesized, a significant positive relationship was found between these two variables. Employees who perceive themselves as job content career plateaued also tend to report greater intentions of quitting the organization. The results of the present study are similar to Milliman's (1992a) findings. Both studies found that employees perceiving greater levels of job content career plateauing reported greater intentions to quit the organization.

Overall, the results of hypotheses 2 through 6 could have serious implications for organizations that are trying to retain competent employees. A number of job attitudes under study have been associated with negative attitudes and behaviors. For example, lower levels of job satisfaction have been related to greater levels of absenteeism and turnover (Muchinsky & Tuttle, 1979; Porter & Steers, 1973), and lower levels of organizational commitment have been related to higher levels of turnover, absenteeism, tardiness, and stress (Mathieu & Zajac, 1990). Furthermore, intentions to quit have been related to actual turnover behavior (Cotton &

Tuttle, 1986; Parasuraman, 1982; Waters & Roach, 1979; Waters, Roach, & Waters, 1976). Future research on career plateauing could include behavioral variables such as absenteeism, tardiness, and turnover. This research could also utilize more sophisticated analyses (e.g., path analysis) to explore the complex relationships among perceptions of career plateauing, job attitudes, and behaviors.

More basically, however, future research on career plateauing should continue to use multiple-item measures, such as those developed by Milliman (1992a), to investigate the relationships of hierarchical and job content career plateauing and a number of job attitudes and behaviors. Additional empirical evidence of the relationships between both types of career plateauing and these job attitudes is needed. Future research should continue to consider job content plateauing, since research on this particular type of career plateau has begun very recently (Milliman, 1992a). As the incidence of both types of career plateaus continues to rise and continues to be recognized by organizations, it will be important to have information regarding the relationships between plateauing and the job attitudes and behaviors that tend to accompany perceptions of these plateaus.

Another area for future research might be to investigate some positive side effects of career plateauing. For example, Sisto (1990) suggested that individuals at a career plateau might be able to devote more time to their family, leisure, or community activities. In addition, Kelly (1985) suggested that plateaued employees may be able to take the time to develop other interests and skills that could eventually lead to second careers. While the variables under investigation in the present study included work-related attitudes, nonwork variables that investigate family, leisure, and community participation might also be included in future research.

Measures of Career Plateauing

Hypothesis 7a examined whether the perceptual measure of hierarchical career plateauing used in the present study would account for more variance in the outcome measures than the traditional job tenure measure of plateauing. The results of the present study showed

the hierarchical measure of career plateauing accounted for a significant amount of additional variance for each of the dependent variables under investigation with the exception of number of hours worked per week.

The results of the present study concur with studies done by Chao (1990), Milliman (1992a), and Tremblay et al. (1992). Chao (1990) found that her two item perceptual measure of hierarchical career plateauing significantly increased the amount of variance accounted for in each of the four dependent variables she examined (i.e., intrinsic job satisfaction, extrinsic job satisfaction, career planning, company identification). Milliman (1992a) demonstrated that his six-item perceptual measure of hierarchical career plateauing accounted for a significant amount of additional variance in each of the eleven dependent variables he studied (i.e., organizational commitment, intention to quit, job involvement, performance, work hours, promotion aspiration, pay satisfaction, promotion satisfaction, company satisfaction, supervisor satisfaction, and job satisfaction). Tremblay et al. (1992) found their two item measure of career plateauing was also successful in accounting for a significant amount of additional variance in each of their nine dependent variables (i.e., general satisfaction, career satisfaction, satisfaction with the job itself, pay satisfaction, supervisor satisfaction, co-worker satisfaction, company satisfaction, intention to quit, and perception of instrumentality).

While it is noteworthy to determine that a perceptual measure of career plateauing is capable of accounting for additional variance beyond the more traditional measures of career plateauing, Milliman (1992a) warns that part of the success of the perceptual measure may be due to common method bias. In other words, since career plateauing and the dependent variables are all measured using a single survey that asks for perceptual data, the correlations between these variables may be artificially inflated over the correlations between the dependent variables and a more objective measure such as job tenure. In research where confidentiality is not an issue, job tenure information could be gathered from personnel records. Future research might also address this issue by collecting perceptual measures of career plateauing separate from the collection of attitudinal data. This research would need to

address several logistical details including collecting the data at a close enough interval so that the perceptions of plateauing and job attitudes collected from the individuals could be related to each other, yet administering the surveys far enough apart so that responses to one survey would be less likely to influence the responses to the other.

Hypothesis 7b investigated whether the perceptual measure of job content plateauing used in the present study would account for more variance in the outcome measures than the traditional job tenure measure of plateauing. Although job content plateauing was never operationalized in terms of job tenure, this hypothesis sought to determine whether a measure of plateauing unrelated to hierarchical level could successfully account for variance in the outcome measures.

The results of the present study showed the measure of job content plateauing accounted for a significant amount of additional variance for each of the dependent variables under study with the exception of employee health concerns (i.e., job-induced tension). This finding suggests that a measure of job content career plateauing may also be helpful in explaining variance in a number of dependent variables, although the same caution that was mentioned earlier (i.e., common method bias) should still be considered.

The additional analyses performed post hoc presented interesting findings regarding the plateauing measures. When job content plateauing was entered into a model containing age, supervisory status, and facility (as control variables), job tenure, and hierarchical career plateauing, job content plateauing clearly accounted for a significant amount of additional variance in each of the dependent variables investigated with the exception of job-induced tension. These results are consistent with those of Milliman (1992a), who had included both types of career plateauing as independent variables in his study.

This finding suggests that although the measures of hierarchical and job content career plateauing were correlated ($r = .37$), the measure of job content plateauing still seems to be distinct from the measure of hierarchical career plateauing. Both Milliman's (1992a) study and the present study demonstrate that the job content plateauing measure is capable of accounting

for additional variance that had been unaccounted for by the hierarchical plateauing measure. This finding also suggests that job content plateauing should continue to be studied in its own right, as it seems to be capable of capturing unique variance in the dependent variables under investigation.

Moderators of the Relationships Between Career Plateauing and Job Attitudes

Hypotheses eight through fourteen examined potential moderators of the relationships between both hierarchical and job content career plateauing and the job attitudes reviewed above. The discussion that follows will first address findings of hypotheses 8a, 9a, 10a, 11a, 12a, 13 and 14a, which examined potential moderators of the relationships between hierarchical career plateauing and job attitudes. The hypotheses pertaining to potential moderators of the relationships between job content career plateauing and job attitudes (i.e., hypotheses 8b, 9b, 10b, 11b, 12b and 14b) will then be discussed.

Moderators for Hierarchical Career Plateauing-Job Attitude Relationships. Hypothesis 8a investigated job tenure as a potential moderator of the relationship between hierarchical career plateauing and outcome variables. The results of the present study showed that job tenure served as a moderator for one of the nine dependent variables. Job tenure moderated the relationship between hierarchical career plateauing and employee intent to quit. More specifically, employees who perceive themselves to be at a hierarchical career plateau and who are in their current positions for longer periods of time tend to report less willingness to leave the organization. In addition, employees who perceive themselves to be at a hierarchical career plateau and who have not been in their current jobs for very long will tend to report a greater willingness to leave. While the current study found that job tenure also moderated the relationships between hierarchical career plateauing and intrinsic reward satisfaction, pay satisfaction, and the number of hours worked per week, these findings were only marginally significant.

The results of this hypothesis are thus mixed when compared to results of previous research that has included similar variables. For example, in Chao's (1990) research that

examined job tenure as a potential moderating variable, she found that employees at a given level of career plateauing who had held their jobs for shorter periods of time reported lower levels of intrinsic satisfaction. Had the results of the present study been more significant with regard to intrinsic job satisfaction, they would have suggested a similar relationship. More specifically, the results would have suggested that employees with greater job tenure actually reported higher levels of intrinsic reward satisfaction than employees with lower job tenure. Perhaps employees with longer job tenure who also perceive themselves to be at a hierarchical career plateau are more accepting of this plateau. These employees may still be able to recognize the benefit that their jobs bring to others. Employees with shorter job tenure may be more impatient to advance to the next level and less willing to see the good that their jobs bring.

The results of the present study are similar to those of Milliman's (1992a, 1992b) findings in terms of the number of hours worked per week, although the relationship in the present study was only marginally significant. More specifically, these studies found that to some extent, employees at a hierarchical career plateau who have held their present positions for longer periods of time tend to work more hours per week than employees with shorter job tenure. Perhaps employees put in additional hours on the job hoping to earn the promotion that has not come in a while. Alternately, the survey respondents may have been hoping that the results of the survey would be shown to someone who could get them promoted. They may have reported a greater number of hours worked than is actually true.

The results of the present study replicate Tremblay et al.'s (1992) research in terms of the findings for intent to quit. Both studies found that employees at a hierarchical career plateau who have greater job tenure will report a lower intent to quit than employees with lower job tenure. The results suggest that employees with greater job tenure will be less likely to leave their organization even when faced with limited opportunities for promotion. The finding may be due to a desire to retain health and/or retirement benefits accrued at their present organization or to a need to maintain job security in difficult economic times. These

findings also suggest that it may be important for organizations to address perceptions of hierarchical career plateauing, especially for employees with shorter job tenure. Based on the findings of the present study, employees with lower tenure who perceive a career plateau may choose to leave the organization. Future research may help clarify this potential relationship, as Milliman (1992a, 1992b) did not find this relationship to be significant in his research.

Finally, the results regarding pay satisfaction were marginally significant, whereas Milliman's (1992a, 1992b) research found job tenure was not a significant moderator between hierarchical career plateauing and pay satisfaction. While only marginally significant, the findings of the present research suggested that individuals at a hierarchical career plateau who have held their jobs for longer periods of time will also report slightly decreased levels of pay satisfaction. Perhaps these employees who have been denied promotional opportunities feel that they deserve pay increases due to the number of years they have had on the job. The lower reported levels of pay satisfaction may be due to this belief.

Job tenure should continue to be included in studies of hierarchical career plateauing in order to help sort out the mixed results that are accumulating. Differences in occupations and occupational levels should be noted to determine whether the findings may tend to vary depending upon the nature of the sample. In addition, job tenure will continue to be an important variable to investigate because of the lack of promotional opportunities available across many organizations. Ways in which people react to career plateauing based on the length of time they have spent in their job will need to be documented so that interventions may be aimed at employees suffering negative consequences from this inevitable event.

Hypothesis 9a examined whether promotion aspiration might moderate the relationship between hierarchical career plateauing and outcome variables. The results of the present study indicate that promotion aspiration served to moderate the relationship between hierarchical career plateauing and intrinsic reward satisfaction and intent to quit. More specifically, employees who perceive themselves to be hierarchically plateaued and who have a greater

desire to be promoted will report lower levels of intrinsic reward satisfaction and a greater intention to quit.

The findings of the present study regarding promotion aspiration as a potential moderating variable were predictable. If an individual who desires to be promoted perceives that his or her opportunities for promotion have been and will continue to be limited, it follows that the employee may report lower levels of certain job attitudes, and a greater intention to quit. There is some question, however, as to why the results were not significant for more of the dependent variables under investigation. Milliman (1992a, 1992b), for example, found promotion aspiration served to moderate not only the relationship between hierarchical career plateauing and intention to quit, but also the relationships between hierarchical career plateauing and organizational commitment, promotion satisfaction, company satisfaction, job involvement, and job satisfaction.

Hypothesis 10a examined life satisfaction as a potential moderator between hierarchical career plateauing and the dependent variables under study. The results of the present study indicate that life satisfaction served to moderate the relationships between hierarchical career plateauing and pay satisfaction. Life satisfaction was marginally significant for intent to quit, and number of hours worked per week. Employees who perceive themselves to be hierarchically plateaued and who also report greater levels of life satisfaction tend to report a decrease in pay satisfaction and a slightly greater intention to quit, and slightly more hours worked per week.

The present study was the first to examine life satisfaction as a potential moderator. The findings suggest that for a given level of hierarchical career plateauing, as life satisfaction increases, employees tend to report a decreased level of pay satisfaction. Perhaps these employees are satisfied with life in general, but they still perceive their pay levels to be too low to compensate for the lack of promotional opportunities on the job.

While the other results were only marginally significant, it is interesting to note that employees who perceive a hierarchical plateau who also report higher levels of life satisfaction

report a slightly greater intent to quit the organization. Perhaps employees who are satisfied with their lives in general are more willing to leave their present jobs in an attempt to find something better. In addition, hierarchically plateaued employees reporting greater levels of life satisfaction tend to report working more hours per week. Perhaps the additional hours they work may convey a sense of optimism the employees may have about eventually attaining a promotion.

Hypothesis 11a investigated employee participation in developmental opportunities as a potential moderator between hierarchical career plateauing and job attitudes. The results of the present study show that employee participation in developmental opportunities served to moderate only the relationship between hierarchical career plateauing and employee health concerns, and this relationship was weak. More specifically, the findings seemed to suggest that employees who perceive themselves to be hierarchically career plateaued and who participate in developmental activities more frequently will also tend to report slightly greater levels of job-induced tension.

The present study was the first to include participation in employee development opportunities as a potential moderating variable. Perhaps the results of this study suggest that employees at a hierarchical career plateau who also participate in a number of developmental activities on the job perceive slightly greater levels of job-induced tension due to the increased demands made on their work time. While it may be important to provide these employees with developmental opportunities, it may also be important to make these opportunities optional for employees so that those who cannot work the activities into their schedules are not forced to do so. Furthermore, future research may want to include a question for employees to indicate whether their participation was voluntary or not. It may be that individuals participating in voluntary activities may not report greater levels of job-induced tension, while those for whom participation is mandatory may report greater levels of job-related health concerns.

Hypothesis 12a examined employee perceptions of alternative job opportunities as a potential moderator between hierarchical career plateauing and outcome variables. The results of this study indicate that perceptions of alternative job opportunities did not moderate the relationships between hierarchical career plateauing and any of the dependent variables under investigation. Perhaps the availability of alternative job opportunities was not important to participants in the present study since intent to quit was relatively low. This variable may be more successful as a potential moderating variable where employee intent to quit the organization is higher than in the present sample.

The present study was the first to examine employee perceptions of alternative job opportunities as a potential moderating variable. The results do not lend much promise to this variable functioning as a moderator between hierarchical career plateauing and any of the dependent variables under investigation. Perhaps future research could concentrate on other potential moderators that have more promise than alternative job opportunities.

Hypothesis 13 examined job content career plateauing as a potential moderator between hierarchical career plateauing and the dependent variables included in the present study. According to the results of the present study, job content career plateauing only served to moderate the relationship between hierarchical career plateauing and pay satisfaction. The results suggest that employees who perceive themselves to be both hierarchically and job content career plateaued will report lower levels of pay satisfaction than employees who perceive themselves as being hierarchically plateaued only.

It is interesting to note that employees who did not perceive themselves to be either hierarchically or job content career plateaued reported the greatest levels of pay satisfaction, while those who perceived both types of plateaus reported the lowest. Intuitively, it makes sense for employees to report lower levels of pay satisfaction when experiencing both hierarchical and job content career plateauing. Milliman (1992a, 1992b) included job content career plateauing as a potential moderating variable in his research. He found that employees who perceived both hierarchical and job content career plateaus reported lower levels of

company satisfaction and increased levels of promotion satisfaction and promotion aspiration. Perhaps further investigation of job content career plateauing in general and job content career plateauing as a potential moderator between hierarchical career plateauing and job attitudes and behaviors could help sort out these findings.

Hypothesis 14a investigated age as a potential moderator between hierarchical career plateauing and outcome variables. The results of the present study indicate that age served to moderate the relationships between hierarchical career plateauing and intent to quit, organizational commitment, and number of hours worked per week. More specifically, employees who perceive themselves to be hierarchically plateaued and who are also older will tend to report greater levels of organizational commitment, a greater number of hours worked per week, and a lower intention to quit than younger employees perceiving themselves to be hierarchically plateaued. While these findings may be comforting to organizations that are facing an increased number of older employees in the work force, the implications for younger employees are alarming. The findings of the present study suggest that younger workers will report lower levels of organizational commitment, they will work fewer hours per week, and they will report a greater intent to quit when faced with a hierarchical career plateau. Interventions may be needed to help keep the younger members of the work force productive.

The present study was the first to examine age as a potential moderating variable. It appears that in spite of perceiving a hierarchical career plateau, older employees will tend to report greater levels of commitment to the organization, they will work more hours per week, and they will be less willing to leave the organization. Younger workers, however, will report lower levels of organizational commitment, work fewer hours per week, and be more willing to leave. These findings show that employee age may work on the side of the organization when trying to retain a committed work force that is willing to work more hours per week even when perceiving hierarchical career plateaus. Future research might examine whether these older workers who reach a career plateau may make up the group of employees that Ference et al. (1977) refer to as "solid citizens." Alternately, younger employees may become

impatient with the career plateau and express more negative attitudes (e.g., organizational commitment). The findings regarding younger workers emphasize the need to provide these employees with a realistic preview of the promotional opportunities they may expect on the job.

Moderators for Job Content Career Plateauing-Job Attitude Relationships. Hypothesis 8b investigated job tenure as a potential moderator of the relationship between job content career plateauing and the dependent variables under study. The results of the present study show job tenure to moderate this relationship for three of the nine outcome variables: Pay satisfaction, promotion satisfaction, and intent to quit. The direction of these findings indicate that for a given level of job content career plateauing, as job tenure increases there is an increase in promotion and pay satisfaction, and a decrease in intention to quit.

The results also showed that job tenure had a slight effect on the relationship between job content career plateauing and overall job satisfaction, although these results were weak. As above, the direction of this finding was positive, suggesting that individuals at a career plateau who have been in their jobs for longer periods of time will tend to report slightly greater levels of job satisfaction.

Perhaps as job content career plateaued employees remain in their jobs for greater lengths of time, they become resolved to their present situation. While they report lower levels of pay and promotion satisfaction, the decrease is not as dramatic as for employees with lower job tenure. Because of the amount of time they have invested in their current jobs, or perhaps because of the job security they may feel, these employees also report a lower intention to quit.

Hypothesis 9b suggested that promotion aspiration would moderate the relationship between job content career plateauing and outcome variables. The findings of the present study indicate that promotion aspiration serves as a moderator between job content career plateauing and five of the dependent variables under investigation. Intuitively, whether an employee wants to be promoted or not should have nothing to do with his or her perceptions

of job content career plateauing. Apparently, however, employees who perceive themselves to be job content plateaued and who also report greater aspirations for promotion will report greater intention to quit, higher levels of job-induced tension, and lower levels of intrinsic reward satisfaction, promotion satisfaction, and overall job satisfaction than employees with lower promotion aspiration. These employees also tended to report slightly lower levels of organizational commitment.

Perhaps the employees perceiving job content plateaus report greater intention to quit because these employees are willing to leave their current jobs for better positions elsewhere. Employees who are job content plateaued and also desire to be promoted may be more willing to quit their present jobs in exchange for an opportunity to get what they want.

Perhaps the findings pertaining to job-induced tension, intrinsic reward satisfaction, promotion satisfaction, overall satisfaction, and organizational commitment may be explained with the following reasoning. Since these employees are plateaued in the sense that their current jobs do not offer opportunities for growth and challenge, and since these employees are also expressing a desire for new opportunities (i.e., promotion), their current situation may have a negative effect on their attitudes and behaviors. These employees may thus report lower levels of satisfaction (e.g., intrinsic reward satisfaction, promotion satisfaction, overall job satisfaction) and commitment and greater levels of job-induced tension.

Hypothesis 10b examined life satisfaction as a potential moderator between job content plateauing and the dependent variables under investigation. The results indicate that life satisfaction served to moderate the relationship between job content career plateauing and four of the attitudinal variables: Social reward satisfaction, pay satisfaction, promotion satisfaction, and intent to quit. More specifically, employees who perceive themselves to be job content plateaued and who also report greater levels of life satisfaction will tend to report greater levels of social reward satisfaction and intention to quit, and lower levels of pay and promotion satisfaction.

These results are somewhat difficult to explain. Perhaps employees who are job content career plateaued and report higher levels of life satisfaction let their satisfaction with life in general spill over into the more social aspects of their job (i.e., social reward satisfaction). In spite of their higher reported life satisfaction, however, these employees may not be willing to ignore their dissatisfaction with pay and promotion. Lower levels of pay and promotion satisfaction may be due to beliefs that they should be compensated for less than exciting work. In addition, they may hope that a promotion could bring them an opportunity to be challenged and to learn something new. Employees at a job content career plateau with greater levels of life satisfaction may be more willing to quit their present job in order to find something more challenging. Perhaps these employees are more optimistic about finding a job that better meets their needs.

Hypothesis 11b investigated employee participation in developmental opportunities as a potential moderator between job content plateauing and job attitudes. According to the results of the present study, employee participation in developmental opportunities served to moderate the relationships between job content career plateauing and promotion satisfaction, overall job satisfaction, and intent to quit. Employee participation was marginally significant for employee health concerns. More specifically, for a given level of job content career plateauing, as participation increases, employees also tend to report a greater intent to quit, lower levels of promotion satisfaction and overall job satisfaction, and slightly greater levels of job-induced tension. Although satisfaction with promotion and overall satisfaction decreased when the employees perceived themselves to be job content plateaued, employees who reported higher levels of participation reported greater levels of these facets of satisfaction than employees who reported lower levels of participation.

Perhaps job content plateaued employees who participate in developmental programs may learn new skills or knowledge that allows them to feel more marketable. These employees may then report a greater intent to quit because of their desire to find more challenging positions. Employees may also report slightly increased levels of job-induced

tension because of the time constraints put upon them when participating in a number of extra activities. In addition, employees may report lower levels of promotion and overall job satisfaction because the developmental activities may raise their awareness and expectations about opportunities that they believe should be available to them. Employees probably realize that in spite of additional training and education, they are not applying these new skills to their jobs. Perhaps it is important for organizations to provide developmental activities for employees in conjunction with opportunities to apply their new knowledge and skills.

Hypothesis 12b examined employee perceptions of alternative job opportunities as a potential moderator between job content career plateauing and outcome variables. The results indicated that employee perceptions of alternative job opportunities served to moderate only the relationships between job content plateauing and social reward satisfaction and employee health concerns, and even these results were marginal. More specifically, for a given level of job content career plateauing, as alternative job opportunities increase, social reward satisfaction tends to decrease slightly, and employees tend to report slightly higher levels of job-induced tension.

Since job content plateaued employees may be bored in their positions and do not have opportunities to do new things on the job, perhaps employees who perceive alternative job opportunities believe that there could be something better for them outside of the organization. It is unclear why this situation would tend to impact social reward satisfaction and job-induced tension of all the variables studies. Perhaps employees who believe there is something better "out there" but who have not acted to pursue those opportunities are anxious about making a decision to leave the organization and thus report higher levels of job-induced tension. They may believe that a new job would solve many of their complaints. In addition, these employees may report lower levels of social reward satisfaction because they may partially blame their co-workers for their feeling a lack of challenge in growth.

Hypothesis 14b investigated age as a potential moderator between job content career plateauing and outcome variables. The results of the present study suggest that age will

moderate the relationships between job content career plateauing and overall job satisfaction, and intent to quit. The results also suggest that the relationship between job content career plateauing and social reward satisfaction will be slightly moderated by age. More specifically, these results suggest that for a given level of job content career plateauing, as age increases, overall job satisfaction tends to increase, intent to quit decreases, and social reward satisfaction tends to increase slightly.

These results are similar in direction to the findings reported for age as a moderator between hierarchical career plateauing and job attitudes. Here, it appears that in spite of perceiving a job content career plateau, older employees tend to report greater levels of overall job satisfaction, lower intentions to quit the organization, and slightly greater levels of social reward satisfaction. Perhaps these employees are resigned to the fact that they are not very challenged on the job, yet they see other rewards in the job such as the opportunities to interact with their co-workers. At this stage in their lives, these employees may also be more satisfied with their jobs in general. Again, these employees' lower intention to quit should be encouraging for organizations. It shows that the age of their employees may work on their side when trying to retain an experienced work force even when perceiving job content career plateaus. Of course, since these findings also indicate that younger employees report lower overall job satisfaction and greater intent to quit, the results of the present study seem to indicate a need to address perceptions of job content plateauing in younger employees.

Additional Analyses

The analyses performed post hoc presented interesting findings regarding the measures of career plateauing. While the measures of hierarchical and job content career plateauing are related ($r = .37$), when job content career plateauing was entered into a model containing age, supervisory status and facility (as control variables), job tenure, and hierarchical career plateauing, job content career plateauing clearly accounted for a significant amount of additional variance in each of the dependent variables investigated with the exception of job-induced tension.

These results were consistent with Milliman's (1992a) research and suggest that hierarchical and job content career plateauing should both be included as separate variables in future research. Intuitively, employees could perceive themselves to be at one type of career plateau without perceiving themselves to have also reached the other type of plateau. Future research should examine not only the relationships of these two types of career plateauing to job attitudes and demographic variables, but it should also examine the relationships of these two plateauing constructs to each other.

The additional analyses also emphasized the need to include a number of demographic factors in future research. Future research on career plateauing might benefit from identifying job attitudes reported by occupational groups (e.g., supervisors, nurses) and how membership in these groups affects the relationships between career plateauing and job attitudes.

Limitations of the Present Study

Before discussing the theoretical and practical implications of the present study, it is important to acknowledge potential limitations of the research. Several limitations should be considered.

One potential limitation of the present study is based upon the nature of the sample. The research was conducted in several health care facilities. While this extends previous research by looking into a new industry, it may also limit the generalizability of the findings to other industries. Future research should add more evidence to the generalizability of the findings.

Another limitation to the present study is based upon the method of data collection. The data for the study was collected using a single self-report measure. This procedure introduces the possibility of common method variance, meaning that correlations among variables could have been artificially inflated or otherwise affected by some type of systematic bias of the respondents. It may be possible for research conducted in the future to make use of additional methods of data collection. For example, personnel records could provide information about age, gender, education level, supervisory status, work facility, type of

position, and performance history. Supervisors may also be able to provide information about employee performance. Collecting data from additional sources might make response bias less likely to occur.

Another limitation is partially due to the voluntary nature of the study. Although all 3646 employees within the health care system were given the opportunity to participate in the research, only 956 (26%) of the employees returned completed questionnaires. While this response rate was considered "excellent" by organizational standards (i.e., in comparison to previous response rates obtained within one of the facilities), it is possible that the employees who did not respond to the survey differ in some way from those who did. For example, employees responding to the survey may be those who are more involved in system-wide activities, more optimistic about their input on health system policies, or even those who are more negative about their jobs and job futures. In addition, certain groups may not be well represented within the group of respondents. While the distributions of gender and race in the sample closely resembled those of the entire population, other demographics may have been under-represented. For example, it is apparent from the demographic statistics that 36% of the sample worked in nursing positions. The actual percentage of nurses within the health care facilities under study should be closer to 50%. It would have been helpful to have had access to additional information to determine the similarities of the respondents and nonrespondents.

The additional analyses revealed another limitation of the present study. It appears that many of the demographic characteristics of the sample may be related to a number of the outcome variables under investigation. While age, supervisor, and facility were used as control variables throughout the analyses, other variables such as nursing and gender could also have been used. The relationships among demographic characteristics and job attitudes are apparently numerous and complex. Additional research in the area of career plateauing should try to examine some of these relationships in order to help determine which groups of employees tend to respond differently to the attitudinal and career plateauing measures.

Another potential limitation to the study was the timing of the survey distribution in relation to other events occurring within the participating organizations. As in any field research, certain events may occur which may interfere with data collection. In this case, the surveys were distributed after announcements had been made about policy changes (e.g., plans to eliminate a flexible shift which allowed some employees to work 12-hour shifts on the weekends in return for full-time compensation). Surveys were also administered closely after performance evaluations, and when decisions about pay increases and promotions had been given to employees. These events may have caused some employees to respond more negatively to survey items and may have even discouraged others from replying at all.

An additional limitation of the present study stems from the fact that all measures were collected from survey respondents at a single time. Career plateauing is a perception that probably occurs over a period of time. Therefore, the investigation of both hierarchical and job content career plateauing might readily lend itself to longitudinal study. Studied over time, it might be possible to investigate how the correlates of career plateauing might vary depending on the length of time one has perceived a plateau.

Another limitation is due to the apparent confusion about job tenure question. In spite of efforts made after the pilot study to clarify the nature of the question, many employees (i.e., 189) did not respond to this item, or they wrote in values that were greater than the numbers written under the item requesting information about organizational tenure. While the present research yielded 767 valid responses, further revision to the survey instrument would be necessary before conducting additional research.

An additional consideration involves the operational definition of hierarchical career plateauing used in the present study. The operationalization of hierarchical career plateauing was clarified in the discussion of the plateauing measure in Chapter III. More specifically, the measurement of career plateauing in the present study refers specifically to perceptions of plateauing within one's current organization. Research on career plateauing has typically defined a career plateau as a point in an individual's career when further promotion becomes

unlikely (Stoner et al., 1974). The evolution of plateauing research has operationalized career plateauing in terms of job tenure (i.e., time spent in the same position within the same organization), and more recently, an individual's perceptions of reaching an end to promotion within the current organization. The measure used in the present study to assess hierarchical career plateauing assessed the individual's perceptions of plateauing within the current organization. Traditionally, however, a "career" refers to a lifelong series of jobs (Feldman, 1988). Therefore, perceptions of a "career" plateau would more accurately reflect an individual's perceptions of feeling plateaued after considering not only the present job, but also the jobs and promotional opportunities that could be attained by the individual in other organizations. While hierarchical "career" plateauing was measured in the present study, perhaps "organizational" plateauing would have been a more accurate reflection of the nature of the perceptual measure. Perhaps the term "career plateau" should be reserved to refer to perceptions of plateauing in one's entire career.

Theoretical Implications

The present study extended the previous research in the area of career plateauing. Only a limited number of studies have been conducted since the measurement of hierarchical career plateauing began its evolution from more objective measures (e.g., job tenure) to perceptual measures of plateauing. Relationships were examined between hierarchical career plateauing and a number of job attitudes. Overall, hierarchical career plateauing tends to be negatively related to the job attitudes studied. For the most part, these results served to replicate findings of previous research.

The present study also examined job content plateauing which has not received much research attention in the past. Based upon the results of the research thus far, perceptions of job content plateauing warrant additional attention. The research evidence suggest that job content career plateauing also tends to be negatively related to job attitudes and behaviors. Future research should continue to examine this variable.

Although the present study did not investigate each of the factors mentioned in Figure 6, a number of these relationships were examined. The attitudinal variables in the present study were typical of those included in past research. However, since a very limited number studies have investigated hierarchical and job content career plateauing using perceptual measures, replication of previous findings is necessary. Even more importantly was the exploration of a number of moderating factors. While not all of the moderators included in the present study called for further investigation, it is theoretically important to identify factors that may influence the relationships between career plateauing and job attitudes as well as factors that do not. The present study was the first to report the investigation of potential moderators of job content career plateauing-job attitude relationships. It is interesting to note that the moderators under investigation in the present study seemed to have more significance for the relationship between job content career plateauing and job attitudes than for hierarchical career plateauing and the outcome measures. Research in this area should continue. In addition to the relationships illustrated in Figure 6, future research might also examine more complex causal relations. Additional research should not be limited by the finite set of variables included in Figure 6. Researchers should identify and explore other variables of interest.

The present study was the first to include such a large percentage of women (i.e., 83%). In addition, it was the first to include all positions within an organization rather than focusing primarily on management positions. In spite of these changes, the negative relationships between both hierarchical and job content career plateauing and a number of job attitudes seemed clear. Future research should continue to examine other occupations and industries with unique demographic profiles. Future research may also want to focus on the similarities and differences in perceptions of supervisory and non-supervisory personnel as well as the perceptions of certain occupational groups (e.g., nurses, teachers) and departments.

Although several adaptations were made to the measurement instruments, this was the first study to use previously established measures of career plateauing. The measures used in

the present study were adapted from those developed by Milliman (1992a). By using previously established instruments that were customized for the present study, the present research has begun to add some continuity to plateauing research.

The results of the present research concurred with those of Chao (1990), Milliman (1992a), and Tremblay et al. (1992) in their attempts to document the utility of perceptual measures of career plateauing over the more traditional, objective measure (i.e., job tenure). Each of these studies found that hierarchical career plateauing accounted for a significant amount of additional variance in each of the dependent variables under study. Future research should continue to explore perceptual measures of career plateauing.

Regarding the measure of job content plateauing, the results of the present study added evidence to Milliman's (1992a) finding that job content career plateauing is capable of accounting for additional variance in the outcome measures even when entered into the regression equation after hierarchical career plateauing. Research should continue to investigate this type of career plateau. Job content plateauing seems to account for unique variance in job attitudes over the amount accounted for by hierarchical plateauing.

Finally, this study made progress in the examination of potential moderators of the relationships between hierarchical and job content career plateauing and a number of attitudinal variables. The examination of moderators of these relationships is very new to the field. While some of the present findings replicated those of previous research, others served to contradict past results. In addition, some moderators that were under exploration for the first time provided intriguing results that warrant further investigation (i.e., life satisfaction). There is no doubt that individuals respond differently to the perception of reaching a career plateau. Future research on potential moderating variables should continue, as this research might help to identify key variables that may help or hinder an employee's realization of and reaction to reaching a career plateau.

Practical Implications

On a practical standpoint, career development practitioners should be aware that employee perceptions of reaching a career plateau in terms of both limited promotional opportunities within the current organization and limited opportunities to learn new things on the job tend to be negatively related to a number of job attitudes that are critical to organizational success. In addition, perceptions of career plateauing tend to be positively related to employee intention to quit. Given these findings, it may be useful to prevent hierarchical or job content career plateaus from occurring whenever possible. Measures to prevent hierarchical career plateauing, however, are difficult to create. After all, many organizations are downsizing, and they often eliminate the mid-level positions that people had previously aspired to. Nonetheless, lateral career moves, cross training individuals to work in different functions within the same organization or department, and allowing employees to work on special project teams are all ways that may help alleviate a feeling of hierarchical career plateauing. In addition, job enrichment, lateral career moves, and allowing employees to participate in training to develop new job skills may all help to alleviate feelings of job content plateauing. Future research should examine the effectiveness of these and other programs in alleviating perceptions of career plateauing.

Where career plateauing cannot be prevented, it may be useful to implement programs to soften the potential negative effects of hierarchical and job content career plateauing. For example, employees may want to participate in training to develop new skills that will make them promotable within in their current organization or outside of it. Others may benefit from sabbaticals or leaves of absence to work on projects away from the job. Still others may benefit from some type of support group for plateaued workers to share their perceptions of plateauing with others, and to learn that their feelings and frustrations are not unique.

Future research may also need to examine coping strategies that employees use when they perceive either hierarchical or job content career plateau. This research may be particularly useful for identifying strategies that are effective at countering the negative effects

of perceived plateauing. Future research should also examine the effectiveness of interventions provided by the organization.

It is interesting that the present study found employee participation in developmental activities, which might be one way that organizations would try to ward off career plateauing (especially in terms of job content), does not appear to have the desired effects. For example, the present research indicated that employees at a job content career plateau who indicated greater participation in such activities also tended to report lower levels of promotion and overall satisfaction, and higher levels of job-induced tension and intent to quit. Potential reasons for these negative responses should be further explored before they are implemented. Perhaps increased participation takes up too much time on the job so that employees feel rushed or stressed when trying to get their job tasks done in addition to participating in a number of activities. These feelings may be alleviated by making these activities optional or by providing employees with off-site activities that take them out of their every day environment. Alternately, increased participation may raise employee awareness of other positions or job tasks that they would like to be involved in but are not. Perhaps the activities available to employees should be framed realistically so that employee expectations are not raised unnecessarily. Future research should re-examine employee participation as a potential moderator in order to better understand these relationships. Future research should also begin to explore the types of interventions that are most successful for combatting career plateauing. This research might examine employee perceptions of plateauing before, during, and after the intervention as well as employee job attitudes at each of these times.

Career development practitioners might also be interested to learn that employee age and job tenure may both have a positive effect on the relationship between career plateauing and job attitudes. The results of the present study suggest that older employees who have reached a hierarchical career plateau tend to report increased levels of organizational commitment and number of hours worked per week, and decreased intent to quit. Older employees reaching job content career plateaus tend to report higher levels of social reward

satisfaction, overall job satisfaction, and decreased intent to quit. The results of the present study also show that job tenure seems to positively influence intrinsic reward satisfaction, number of hours worked per week, and intent to quit for employees who perceive themselves to be hierarchically plateaued. Job tenure also appears to have a positive effect on promotion and overall job satisfaction and intent to quit for employee who perceive themselves as job content plateaued.

Of course, these findings also mean that practitioners need to be especially sensitive to the perceptions and intentions of its younger employees as they begin to perceive themselves as plateaued. Perhaps interventions could be developed in order for organizations to successfully retain these younger workers and to rekindle in them feelings of commitment and satisfaction. Further examination of career plateauing using longitudinal research may be able to examine how employee perceptions of and reactions to both types of career plateaus may change with employee tenure and employee age.

Practitioners should be aware, however, that since the exploration of potential moderating variables is still relatively new to the field, these findings should be interpreted with caution. Additional research should help to clarify the nature of these relationships in addition to identifying and examining additional moderators that may be useful in the field.

In conclusion, the present study examined the relationships between career plateauing and job attitudes. The relationships between hierarchical career plateauing and attitudinal and demographic factors received support with the exception of the number of hours worked per week. The relationships between job content career plateauing and attitudinal and demographic factors received support with the exceptions of age and job-related health concerns. Both measures of career plateauing were able to account for a significant amount of additional variance in the attitudinal variables under study except for number of hours worked per week (for hierarchical career plateauing) and job-related health concerns (for job content career plateauing). A number of moderating variables received some support for the relationships between hierarchical career or job content career plateauing and the outcome

variables. Future research should continue to examine hierarchical and job content career plateauing using more diverse samples, examining supervisory and non-supervisory positions, and exploring a number of additional moderating variables.

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APPENDICES

APPENDIX A

SAMPLE QUESTIONNAIRE

July 15, 1993

Dear Fort Sanders Employee:

Reducing costs, improving quality, and increasing job satisfaction are three goals of CQI . Becoming the provider of choice in East Tennessee is important, but we know this cannot happen unless we are also the employer of choice. During CQI Orientation last year, we talked about what would make Fort Sanders the best place to work--the Ideal Work Environment. By assisting UT in a study, we can continue our efforts to design for the future based on data/information. With your help we will learn more about ourselves from this study--at no cost to Fort Sanders--while being of service to a graduate student at UT working on her dissertation. We are excited about this chance to get such valuable information at this point in our process. It is a win-win for everyone.

Your responses to the survey will be kept strictly confidential. No one in the organization will see your individual survey responses. Results will be reported to Fort Sanders based on groups of people so that individuals cannot be identified.

Completion of the survey should take approximately 20 minutes, and your participation is voluntary. The return of your completed survey indicates your informed consent to participate in the project.

Please return the completed self-addressed, stamped survey by August 6, 1993. Please direct any comments or questions about the survey to:

Laura A. Davenport
Research Associate
The University of Tennessee
408 Stokely Management Center
Knoxville, TN 37996-0545
(615) 974-3161

We appreciate your assistance with this project.

James N. Kulpan
Vice President, CQI

Ellen R. Kidd
Director, CQI

Attach.

FORT SANDERS ALLIANCE

1901 Clinch Avenue
Knoxville, TN 37916-2398

615/541-2805
FAX 615/541-2810

The Fort Sanders Health System:

- Fort Sanders Alliance
- Fort Sanders Foundation
- Fort Sanders Loudon Medical Center
- Fort Sanders Parkwest Medical Center
- Fort Sanders Regional Medical Center
- Fort Sanders Sevier Medical Center
- Fort Sanders West
- Patricia Neal Rehabilitation Center
- Thompson Cancer Survival Center
- Fort Sanders School of Nursing

Founding Member VHA Voluntary Hospitals of America

Career Attitude Survey

Part A

The first part of this survey asks you how you feel about your career opportunities, your job, and your organization. Please use the following scale to circle one response for each item to indicate the extent to which you agree or disagree.

Strongly Disagree 1	Disagree 2	Slightly Disagree 3	Neither Agree Nor Disagree 4	Slightly Agree 5	Agree 6	Strongly Agree 7

My opportunities for promotion are limited in this organization.	1	2	3	4	5	6	7
I expect to be constantly challenged in my job.	1	2	3	4	5	6	7
I expect to be promoted frequently in this company in the future.	1	2	3	4	5	6	7
I have a chance to learn and grow a lot in my current job.	1	2	3	4	5	6	7
I have reached a point where I do not expect to move much higher in this company.	1	2	3	4	5	6	7
My job tasks and activities are becoming routine for me.	1	2	3	4	5	6	7
I will probably not get ahead in this organization.	1	2	3	4	5	6	7
My job responsibilities are significantly increasing.	1	2	3	4	5	6	7
I am unlikely to obtain a much higher job title in this organization.	1	2	3	4	5	6	7
My job requires me to continually extend my abilities and knowledge.	1	2	3	4	5	6	7
I expect to advance to a higher level in this company in the near future.	1	2	3	4	5	6	7
I am challenged by my job.	1	2	3	4	5	6	7
All in all, I am satisfied with my job.	1	2	3	4	5	6	7
I am satisfied with the way I am treated by my co-workers.	1	2	3	4	5	6	7
I am satisfied with the chances I have to learn new things.	1	2	3	4	5	6	7
I am happy with the amount of money I make.	1	2	3	4	5	6	7
In this company, promotions are handled fairly.	1	2	3	4	5	6	7
I plan to look for a new job before long.	1	2	3	4	5	6	7
I definitely want to be promoted.	1	2	3	4	5	6	7
All in all, I could probably find an acceptable job with another company.	1	2	3	4	5	6	7
In general, I like my job.	1	2	3	4	5	6	7
I am satisfied with the respect I receive from my co-workers.	1	2	3	4	5	6	7
I am satisfied with the chances I have to accomplish something worthwhile.	1	2	3	4	5	6	7
Considering my skills and the effort I put into my work, I am satisfied with my pay.	1	2	3	4	5	6	7
My chances for promotion are good.	1	2	3	4	5	6	7
I will probably look for a new job in the next year.	1	2	3	4	5	6	7
It is important to me that I be promoted.	1	2	3	4	5	6	7
There are jobs in other organizations that I could obtain.	1	2	3	4	5	6	7
In general, I like working in this organization.	1	2	3	4	5	6	7
I am satisfied with the friendliness of the people I work with.	1	2	3	4	5	6	7
I am satisfied with the chances I have to do something that makes me feel good about myself as a person.	1	2	3	4	5	6	7
I am satisfied with the amount of pay I get.	1	2	3	4	5	6	7

Strongly Disagree 1	Disagree 2	Slightly Disagree 3	Neither Agree Nor Disagree 4	Slightly Agree 5	Agree 6	Strongly Agree 7

This organization is concerned about giving everyone a chance to get ahead.	1	2	3	4	5	6	7
It is likely that I will actively search for a new job in the next year.	1	2	3	4	5	6	7
I desire to move up to higher levels in this company.	1	2	3	4	5	6	7
I could probably get a good job in another organization	1	2	3	4	5	6	7
I am willing to put in a great deal of effort beyond that normally expected in order to help this organization be successful.	1	2	3	4	5	6	7
I tell my friends that this is a great organization to work for	1	2	3	4	5	6	7
I would accept almost any type of job assignment in order to keep working for this organization.	1	2	3	4	5	6	7
I find that my values and the organization's values are very similar	1	2	3	4	5	6	7
I am proud to tell others that I am part of this organization	1	2	3	4	5	6	7
This organization really inspires the very best in me in the way of job performance.	1	2	3	4	5	6	7
I am extremely glad that I chose this organization to work for over others I was considering at the time I joined	1	2	3	4	5	6	7
I really care about the future of this organization	1	2	3	4	5	6	7
For me, this is the best of all possible organizations for which to work.	1	2	3	4	5	6	7
My job is a major source of satisfaction in my life.	1	2	3	4	5	6	7
The most important things that happen to me involve my work	1	2	3	4	5	6	7
I have few activities more important than work	1	2	3	4	5	6	7
I am very much involved in my work	1	2	3	4	5	6	7
Even if a person has a good job, he/she should always be looking for a better job.	1	2	3	4	5	6	7
A person should always work hard with the hope of being promoted to a higher level.	1	2	3	4	5	6	7
A worker who turns down a promotion is probably making a mistake	1	2	3	4	5	6	7

Part B

The following questions ask you about your nonwork activities (e.g., family, leisure, community, religion) and your life as a whole. Please use the scale to circle one response for each item to indicate the degree to which you agree or disagree.

In general, I am satisfied with the amount of fun I am having in my life.	1	2	3	4	5	6	7
I am satisfied with the amount of free time that I have.	1	2	3	4	5	6	7
The conditions of my life are excellent.	1	2	3	4	5	6	7
I am satisfied with how I get along with others.	1	2	3	4	5	6	7
I am satisfied with my family life	1	2	3	4	5	6	7
I am satisfied with my life as a whole	1	2	3	4	5	6	7
My nonwork activities (e.g., family, leisure, community, religion) are a major source of satisfaction in my life.	1	2	3	4	5	6	7
The most important things that happen to me involve my nonwork activities	1	2	3	4	5	6	7
I have few activities more important than my nonwork activities.	1	2	3	4	5	6	7
I am very much involved in my life outside of work	1	2	3	4	5	6	7

Strongly Disagree 1	Disagree 2	Slightly Disagree 3	Neither Agree Nor Disagree 4	Slightly Agree 5	Agree 6	Strongly Agree 7

Part C

The next section of the survey asks about your health. Please use the scale above to circle one response for each item to indicate the extent to which you agree or disagree.

My job tends to directly affect my health	1	2	3	4	5	6	7
I work under a great deal of tension.	1	2	3	4	5	6	7
I have felt anxious or nervous as a result of my job	1	2	3	4	5	6	7
If I had a different job, my health would probably improve	1	2	3	4	5	6	7
Problems associated with my job have kept me awake at night.	1	2	3	4	5	6	7
I have felt nervous before attending meetings in the company.	1	2	3	4	5	6	7
I often "take my job home with me" in the sense that I think about it when doing other things.	1	2	3	4	5	6	7

Part D

Below is a list of various career development activities. Please use the following scale to circle one response for each activity to indicate how often you have participated.

Never 1	Rarely 2	Sometimes 3	Often 4	Very Often 5

Career Counseling: One-on-one discussions between you and your supervisor to talk about your career goals and interests.	1	2	3	4	5
Flexible scheduling: Having flexibility with the type of shifts you work (weekends only, every other weekend, no weekends), lengths of shifts (8, 10, 12 hours), or specified arrival and departure times	1	2	3	4	5
Job Posting: Checking information displayed within the hospital to inform you of job openings in the organization.	1	2	3	4	5
Job Rotation: Participation in multiple jobs, often at a similar level, to develop a broad skill base	1	2	3	4	5
In-house Training Programs: Attendance at internal training programs to develop job-related skills.	1	2	3	4	5
External Training Seminars: Attendance at external training programs to develop job-related skills.	1	2	3	4	5
Tuition Reimbursement: Partial or full financial reimbursement to you for enrolling in courses or degree-granting programs.	1	2	3	4	5
Continuous Quality Improvement (CQI) Process: Participation in the CQI process as a trainer, facilitator, trainee, or member of a problem-solving team.	1	2	3	4	5
Informal Problem-solving Teams: Participation in informal work teams created to solve problems.	1	2	3	4	5
Preceptor Program: Becoming a mentor of a new employee	1	2	3	4	5
Career Exploration: Using resources available in the community (workshops, libraries, resource centers, counselors) to find out more about your career goals and interests	1	2	3	4	5
Professional or Personal Development Opportunities: Seeking additional training outside of your organization to further your own career aspirations or personal development	1	2	3	4	5

Part E: Background Questions

Please give us some information about yourself. All responses will be kept strictly confidential, and will only be analyzed in group form for statistical purposes.

Age: _____ Years

Gender: ☐ Male ☐ Female

Race: ☐ Caucasian ☐ Asian American ☐ Hispanic
☐ African American ☐ Native American (Indian/Alaskan) ☐ Other (please specify): _____

Marital Status:

☐ Single, Never Married ☐ Separated ☐ Widowed
☐ Married ☐ Divorced

Highest Level of Education Completed:

☐ Elementary School ☐ Some College ☐ Four Year College Degree
☐ Some High School ☐ Certification Program ☐ Some Graduate Work
☐ High School Diploma / GED ☐ Nursing Diploma Graduate ☐ Graduate Degree
☐ Trade or Technical Training ☐ Two Year Associate's Degree ☐ Other (please specify): _____

Your work facility:

☐ Loudon Medical Center ☐ Regional Medical Center ☐ TCSC ☐ FS West
☐ Parkwest Medical Center ☐ Sevier Medical Center ☐ Alliance Employee

How long have you worked: In this organization? _____ Years
In your current job? _____ Years

How many hours do you typically spend on work per week (including work done outside of the office)? _____ Hours/Week

Is your present job (check one): ☐ Supervisory ☐ Non-supervisory

Are you a nurse? ☐ Yes ☐ No

What department or area do you work in? (Examples are provided for each category.)

☐ Medical (Physical Therapy, Respiratory Therapy, PT-Rehab, Emergency, Pharmacy, CCU/Critical Care, Home Health, Neuro, Rehab/4W, NSG Float/Techs/Mess, Occupational Therapy, PT-Parkmed, Cardiology, ICU, Medical Floors, Oncology, Nephrology, COU, Behavioral Medicine, Speech Pathology, Recreational Therapy)

☐ Support Services (Administration/Clerical, Nursing Admin./Nursing, Plant Engineering/Maintenance–TV's-Heat-AC, Medical Records, Marketing/Public Aff., Dietary, Environmental Services, Accounting, Admitting Office, Social Services, Employee Health, Quality Assurance, Security, Medical Staff Ofc., O.P. Registration, School of Nursing, Human Resource Dev.)

☐ Surgery (Surgery/OR, OB/GYN/L&D, Recovery Room/PACU, Endoscopy-GI Lab, Outpatient Day Surgery, Orthopedics)

☐ Diagnostics (Laboratory, Radiology/X-ray, EKG, Heart Cath Lab, DSA, Nuclear Medicine, Sleep Disorder Center, Electrodiagnostics)

Part F: Additional Comments

Please attach additional sheets to offer any other comments regarding your attitudes toward your career with your current firm.

Thank you for participating!

APPENDIX B

POWER ANALYSIS

For Hierarchical Analysis (Chapter 10*):

Desired Power = .80 (by convention, p. 445*)

Effect Size (f^2) = .15 (by convention, p. 478*)

Significance Level = .05 (by convention, p. 531*)

$k_y = 1$

$k_x = 4$

Numerator df = $u = k_y k_x = 4$

$s = 1$ (from table, p. 475*)

Denominator df = $v = 327$ (see below)

(p. 515*) $N = 1/s\ (v + u/2 - 1) + (k_y + k_x + 3)/2$

$N = 1/1\ (327 + 4/2 - 1) + (1 + 4 + 3)/2$

$N = 328 + 4$

$N = 332$

TOTAL NUMBER OF SUBJECTS REQUIRED = 332

To calculate v:

$v = (L/f^2)u - 1$, where L is taken from table 9.4.2 (p. 452*):

Assuming v = 120 (by convention, p. 445*)

u = 4
power = .8
significance level = .05
L = 12.3

This L value is entered into the equation: $v = (L/f^2)u - 1$
to find the actual value of v.

$v = (12.3/.15)(4) - 1$

$v = 327$

*From: Cohen, J. (1988). Statistical power analysis for the behavioral sciences (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum Associates.

VITA

Laura Ann Davenport was born in Poughkeepsie, New York on December 6, 1965. She attended elementary schools in the Wappingers Central School District and graduated from John Jay Senior High School in June 1984. After attending colleges in Connecticut, Tennessee, and New York, she graduated summa cum laude from the State University of New York College at New Paltz in May 1988 with a Bachelor of Arts in psychology. In August 1988, she entered The University of Tennessee, Knoxville to pursue a doctoral degree in Industrial/Organizational Psychology.

While at the university, Laura was awarded a Hilton A. Smith Fellowship for the 1988-89 academic year. In addition, Laura received a College of Business Capital Gifts Grant for the 1988-89 and 1989-90 academic years. She has taught undergraduate management courses in the Department of Management at The University of Tennessee and has worked as an adjunct faculty member at Maryville College. Laura has gained applied research experience through contract assistantships, working as a training evaluation specialist at the Aluminum Company of America and as an inspections associate in the Inspector General's Office at the Tennessee Valley Authority.

Laura is affiliated with the Society for Industrial and Organizational Psychology, Academy of Management, Southern Management Association, American Psychological Association, American Psychological Society, and the Southeastern Psychological Association. She is employed on a personal services contract by the Tennessee Valley Authority.

Outside of work, Laura enjoys spending time with her family, especially her husband, John. She also enjoys outdoor activities including water skiing, bicycle riding, photography, and nature.