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Gender and promotion: An application of the resource perspective to administrative mobility in a higher education organization

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The Ohio State University, 1988
GENDER AND PROMOTION:
AN APPLICATION OF THE RESOURCE PERSPECTIVE TO ADMINISTRATIVE MOBILITY
IN A HIGHER EDUCATION ORGANIZATION

Dissertation
Presented in Partial Fulfillment of the Requirements for
the Degree of Doctor of Philosophy
in the Graduate School of The Ohio State University

by
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Department of Educational Policy and Leadership
To My Father

William L. Johnsrud

1928-1973
ACKNOWLEDGMENTS

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FIELDS OF STUDY

Major Field: Higher Education

Studies in organization and administration of higher education and human development.

Cognate: Sociology

Studies in sociology of work and labor markets.
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This study examined factors influencing the administrative advancement of women and men in a higher education organization. It was posited that organizations influence administrative advancement by determining the distribution of positions and rewards as well as the policies and practices that govern promotion decisions. The research extended and applied a theoretical framework of structural resources and vulnerabilities to an examination of individual promotion outcomes at the organizational level. Two questions were addressed: 1) Do individual and structural resources explain the outcomes of administrative promotion within a higher education organization? 2) Do individual and structural resources operate differently by gender?

The data set was generated from the personnel records of a major land grant university for the years 1982 through 1985. Promotions of 454 individuals to administrative and professional staff positions were analyzed. Organizational policies for promotion including such practices as sponsorship and the creation of new positions as well as the structures of work from which employees were promoted were operationalized as structural variables. Individual variables included gender, experience, education, age, and race of the employee promoted. The dependent variable was the pay range of the position to which an individual was promoted.

A pooled analysis in three successive multivariate regression models confirmed hypotheses that experience, education, and age served both women and men as resources in the promotion process. The addition of the structural variables significantly increased the
explanatory power of the model ($R^2$ increased from .27 in the first model to .42 in the final model). The findings confirmed that both individual and structural resources are important for explaining administrative promotion in higher education. Although the returns to resources did not vary by gender in this organization, women received significantly less return to their promotions than men did to theirs.

The findings suggest that the theoretical framework of structural resources and vulnerabilities holds promise for enhancing understanding of career advancement through promotion within organizations. Also the findings underscore the importance of examining not only individual and structural resources but also the social and power relations that influence the administrative advancement of women and men in a higher education organization.
CHAPTER I

INTRODUCTION

Dramatic increases in the number of administrative and professional staff members employed in higher education during the past twenty years have resulted in increased attention to the composition of this burgeoning group. At large public research universities, the number of administrative staff members has increased substantially (Brown, 1981; Frances and Mensel, 1981), and in at least one major land grant university, the numbers nearly doubled in a seven year period (Sagaria and Johnsrud, 1987a). In a survey of 115 institutions in 1968, Blau (1973) reported a ratio of one administrator to four faculty members. In a survey of college and university personnel in 1980-1982, 42% of the public institutions and 88% of the private institutions reported a ratio of three administrators to two faculty members (Chronicle of Higher Education, October 5, 1983).

Concomitantly, equal opportunity and affirmative action legislation prompted efforts to examine and improve gender representation on administrative staffs. Studies indicate that the numbers of women have increased on administrative staffs in colleges and universities (Frances and Mensel, 1981; Moore, 1983; Touchton and Shavlik, 1984); it is also evident, however, that most efforts at increasing equity in higher education were directed at recruitment and hiring practices. Women administrators increased their representation by 3.5% from 1975 to 1979 in

1 Administrative and professional staff members include those individuals whose assignments carry responsibility for developing and implementing policy, coordinating resources and activities, supervising administrative units that support academic functions, and/or serving as liaisons to a variety of constituents such as faculty, students, business and industry, and government. Titles include directors, managers, coordinators, supervisors, advisors, assistants, counselors, and specialists.
a national study of 1236 colleges and universities; they were, however, hired less frequently, earned less, and held fewer different job titles than men (Frances and Mensel, 1981). Women are overrepresented in entry-level positions (Sagaria and Johnsrud, 1987a) and staff positions (Sagaria and Moore, 1983). Despite increased numbers of women holding administrative and professional positions, the vast majority of senior-level positions continue to be held by men (Frances and Mensel, 1981; Moore, 1983).

Thus, although women experienced a modest improvement in access, their increased access has not ensured equity. Achieving equity for women within higher education organizations depends upon opportunity for career advancement. Although demographic studies have documented the lack of advancement of women by examining the positions they hold, explanations of these outcomes are not empirically based. This study will address the determinants of promotion within a higher education organization in an effort to explain the disparity in advancement by gender.

**Background of the Study**

Promotion within an organization is a primary means for individuals to advance their careers. Opportunity for promotion is important for meeting individual aspirations for increased responsibility, status and salary (Rosenbaum, 1979; Kanter, 1977). Lack of perceived advancement opportunity within an organization contributes to turnover (Smith, 1979). Promotions are also, however, a primary means for organizations to meet human resource staffing requirements and identify quality leadership (Stumpf and London, 1981). Thus, promotions are not random events. They are the byproduct of staffing decisions (Blau and Jussenius, 1976; Rosenbaum, 1984) made within the structure of work of the organization (Spilerman, 1986; Granovetter, 1986). As such, the policies and practices that guide the staffing decisions and create the structure of work influence opportunity for individuals.
Examining individual achievement as a function of the structure of work represents a change in emphasis in the sociological literature. Traditional explanations for individual achievement in occupational roles were rooted in status attainment and human capital explanations that posit individual characteristics as the primary determinants of individual outcomes (Blau and Duncan, 1967; Treiman and Terrell, 1975; Becker, 1964; Polachek, 1981). The effort to examine individual outcomes as a function of the characteristics of the individual as well as the characteristics of the structure of work spawned a new arena of scholarship labeled "new structuralism" by Baron and Bielby (1980). There is, however, little consensus as to what structural variables are relevant to individual achievement in work roles. Their review of the literature in this area emphasizes the variety of structural factors which have been examined:

Much of this research purports to show that individual achievement is a function of structural factors such as class (Wright and Perrone, 1977; Wright, 1978; Kalleberg and Griffin, 1978; 1980), authority (Kluegel, 1978; Robinson and Kelley, 1979; Wolf and Fligstein, 1979), organizational size (Stolzenberg, 1978), or labor market sector (Stolzenberg, 1975; Bibb and Form, 1977; Beck et al., 1978; Hodson, 1978) (p. 737).

Baron and Bielby argue that there is a need "to bring the firms back in" to the analysis of individual outcomes. That is, they maintain that the examination of individual outcomes as a function of occupational or industrial characteristics may be misspecified (Baron and Bielby, 1984), and that empirical studies grounded at the organizational level are more likely to inform current debates about the impact of the structure of work upon individual outcomes.

Structuralism has informed examinations of mobility within organizations (Spilerman, 1977; Kanter, 1977; Halaby, 1979; Rosenbaum, 1979; Ortiz, 1982). Scholarship includes efforts to identify patterns or structures of mobility within organizations and to measure differential outcomes of mobility for certain groups. This study builds upon this prior work but attempts to move beyond the description of the structure of opportunity within organizations and its impact upon individuals to enhance theoretical understanding of 1) the determinants of organizational structure and, 2) the need to empirically assess individual outcomes as a
function of both individual characteristics and structural factors at the organizational level. Prior efforts to identify structure and measure outcomes are reviewed briefly to provide a context for this study.

**Identifying structure**

Structural theorists have begun to describe the structures of mobility and promotion within organizations. For example, Spilerman (1977) conceptualizes individual work histories as a function of the labor market in which workers are employed. He describes career lines (work histories common to a portion of the labor force) both within and between organizations as either orderly or chaotic. Spilerman posits that each movement in an orderly career line improves earnings and status, is not random but rather is more likely from one position to a particular other position, and that the age of incumbents typically increases with each position. In contrast, a chaotic career line is a collection of positions with no particular order, age increase, or difference in earnings or status. Spilerman argues that the structure (orderly or chaotic) of a career line is determined by its location in the labor market.

Building upon the work of Doeringer and Piore (1971), Spilerman distinguishes between a primary market in which jobs are filled from an internal labor market (insulated from nonemployees) and a secondary market in which jobs are filled from the external labor market (nonemployees). Primary market jobs are those for which the employer is willing to invest in the workers providing them with training, high remuneration, and advancement opportunities in order to retain their skills in the firm. Secondary market jobs are those for which there is little incentive for employers to invest in workers because the tasks require less skill and turnover is less costly than in the primary market. Consequently, career lines in the primary sector tend to be orderly; career lines in the secondary sector tend to be chaotic. Spilerman suggests that the career line patterning of the labor market accounts for considerable variation in individual attainments beyond differences in background variables. Thus, he argues that traditional
socioeconomic-achievement models need to be modified to control for the impact of both career-line structure and status characteristics on the status and earnings of individuals.

Another early attempt to describe structural factors influencing mobility is Rosenbaum's (1979) tournament mobility model in which careers are conceptualized as a sequence of competitions, each of which has implications for an individual's mobility chances in each subsequent contest. His analyses of the personnel records of a corporation for a thirteen year period provided support for the hypothesis that mobility in the earliest period of one's career correlates with one's later career mobility. Data also supported the idea that career mobility is not random or open to all candidates but rather that there are clear, ordered career patterns. For example, candidates suffer a disadvantage in not being promoted early in their careers. Moreover, those employees who were not promoted early are no longer competing in the same system with those who were. Nonetheless, every competition is important, and employees must continue to win to advance.

Rosenbaum's model indicates interaction between individual performance and structural opportunity. This interaction is also reflected in Kanter's case study analysis of a large corporation in which she discusses "opportunity as a self-fulfilling prophecy" (1977, p. 158). Kanter identifies three organizational variables which have an impact on an individual's position within the organization and the opportunity for mobility: the structure of opportunity, the politics of power, and the ratio of majority and minority group members in the organization. On the basis of these variables, Kanter hypothesizes a number of outcomes approximating the impact of structure on behavior in organizations: the position one holds determines one's expectation and possibility for advancement; the power or capacity to mobilize resources is a function of both formal job characteristics and informal alliances; and the number of people in a group similar to one another within an organization determines the likelihood of the members of the group fitting in, of being seen as credible, of forming alliances, and of being sponsored by higher level organizational members.
Kanter describes these phenomena as interactive and self-perpetuating. Those who have little opportunity or power and are members of minority groups within the organization behave in ways which tend to constrain their mobility within the organization; those who have greater opportunity and power and are members of the majority group within the organization behave in ways which tend to enhance their mobility within the organization. The structure shapes the behavior and the behavior reinforces the structure. Thus, in Kanter's conceptualization the influence of the organizational structure upon achievement within the organization is more important than the influence of individual background variables.

Gaertner (1980) analyzed a public school system—a non-corporate organization—and generated structural characteristics of career patterns similar to those suggested by Rosenbaum (1979) and Kanter (1977). In this study, a career structure in public school administration was identified using position changes as a measure of connectedness between positions. Distinguishable career patterns were identified as well as support for "assessment positions" which are defined as positions in which performance is visible to persons in senior-level positions in the organization. Holding an assessment position and performing well in it increases the probability of promotion to positions of greater responsibility. Thus, one's mobility is affected by the nature of the position one holds. Gaertner further suggests that assessment position incumbents may become candidates for sponsorship or that these positions may be used by sponsors to "show off" or to strategically place protégés.

In an effort to capture several of the factors influencing how individuals move within an organization, Skvoretz (1984) suggests that there are three intervening variables of opportunity which confound mobility for individuals. Skvoretz identifies a positional factor (the "right place"), an historical factor (the "right time"), and a resource factor (the "right kind of person"). The positional factor represents those positions that may offer more opportunity for advancement so that any incumbent has enhanced opportunity for movement. The historical factor suggests that certain periods of time may represent more opportunity for movement in terms of sheer
numbers of opportunities so that any person present in that period has enhanced opportunity. And finally, the resource factor suggests that certain personal characteristics may be favored over other types so that persons with certain resources may be systematically tapped for advancement. Skvoretz argues that an individual exposed to more opportunity will experience greater mobility, individuals with greater representation in particular positions which in and of themselves provide opportunity will experience greater mobility, and individuals with certain favored personal characteristics will experience greater mobility. Each of the factors posited to influence mobility is a function of the context of the opportunity rather than a function of the individual characteristics relevant to mobility.

Another conceptualization of mobility recognizes that mobility is not unidimensional (Schein, 1971). Movement may be along three dimensions: hierarchical (vertical) which involves rank or level, functional (circumferential) which is often lateral and involves changing divisions or task areas within the organization, and centrality (radial) which involves moving closer to the decision-making or leadership core of the organization. Most of the mobility research focuses on hierarchical movement. Functional moves, however, may well account for the shaping or grooming of an individual for subsequent hierarchical moves as discussed by Ortiz (1982), and issues of centrality surface in discussions of power and authority irrespective of rank such as in Wolf and Fligstein (1979). Both of these studies are discussed in detail in the following section.

Schein depicts the categories of movement as corresponding to boundaries within the internal structure of the organization. Boundaries may vary in number, degree of permeability, and type of filtering properties they possess. For example, hierarchical boundaries separate hierarchical ranks and are crossed with educational degrees, credentials, or experience. Functional boundaries separate divisions and are crossed by demonstrating skill for potential for success in another area or by the organizational assessment that one needs training in another area for future advancement. Centrality is controlled by what Schein labels as inclusion boundaries which are the most intangible and the most difficult to cross. Thus, filters may be
formally stated requirements (more typical of vertical movement) or may be highly informal norms shared by the group to be entered (more typical of radial moves—for example, moves into the "inner circle").

In order to cross the "boundaries" described by Schein, an individual must receive a favorable promotion decision from a supervisor or hiring official. The range of criteria (education, experience, potential, seniority, status characteristics) used for decision-making is often addressed in the literature but the relative importance of these factors within a particular promotion decision or across decisions is not well understood (Stumpf and London, 1981).

Measuring Differential Outcomes

Other theorists have built upon the aforementioned efforts to identify the structural factors of work that influence individual opportunity and have examined the differential outcomes of mobility for specific groups of people within organizations. A number of dependent variables have been used to measure mobility outcomes or advancement including earnings (Halaby, 1979; Olsen and Becker, 1983; Rosenbaum, 1984), hierarchical level (Stewart and Gudykunst, 1982), authority (Wolf and Fligstein, 1979), centrality (Ortiz, 1982), number of promotions (Stewart and Gudykunst, 1982) and rate of promotion (DiPrete and Soule, 1988). Most of the research has dealt with differential outcomes for white women and men, although some researchers have included racial minorities in their analyses.

For example, using a stratified sample of 404 respondents drawn from the salaried employees of a nationwide financial institution, Stewart and Gudykunst (1982) used hierarchical level and number of promotions as their dependent variables. Controlling for amount of education, age, and tenure in the organization, they found significant differences in number and level of promotions for women and men. Females received more promotions than males but occupied significantly lower positions in the organizational hierarchy.
DiPrete and Soule (1988) also emphasized the role of hierarchical level in their examination of the rate of promotion in the federal civil service during the 1970's. They found that the few women (5% of their sample) who had reached administrative and professional levels at the highest federal grades (grades 11 or higher) enjoyed the same rate of subsequent advancement as men did. Women in lower tier (grades 1-4) to middle tier (grades 5-10) jobs, however, were at a net disadvantage in promotion rates when personal attributes and organizational location were controlled. DiPrete and Soule also concluded that the greatest female disadvantage occurred in moving from the lower tier to the upper tier of jobs in the federal civil service. Women had significantly lower probabilities of being promoted from lower tier to upper tier jobs than did men.

In an effort to determine the influence of promotions on the disparity in earnings between women and men, Olsen and Becker (1983) used data from the Quality of Employment Panel (national probability sample of persons aged 16 or older and working 20 hours or more per week), 1973-77, to compare earnings and promotion experience of women and men over the four year period. They suggested that either wage discrimination (women and men promoted to the same job level but receiving different wages) or employment discrimination (women and men of equal ability are promoted to different job levels) could account for the wage disparity. Their findings suggested that women and men received a comparable return to promotions; however, the promotion process they experienced was quite different. In their data, women were held to higher promotion standards than men and therefore received fewer promotions than men with equal measured abilities. Thus, Olsen and Becker concluded that it was unequal access to opportunities that constituted the difference in outcomes for women and men.

Halaby (1979) considered a similar question in an analysis of a data set gathered in 1960 on the management personnel of a utility firm which includes salary, education, length of service in firm, service in other firms, and years in the labor force. On the two most important determinants of salary—schooling and seniority—male rates of return in terms of salary exceeded
female rates by a wide margin (female rate of return in salary to one year of service was 69% of the male rate, and female rate of return to one year of schooling was 17% of the male rate). Nonetheless, segregation by rank accounted for the major difference in salary. Sixty-five percent of the gross male-female salary difference was accounted for by rank although there were only minor differences in schooling, seniority, and differences in entry rank. Halaby concluded that the male-female difference in organizational rewards was primarily a matter of differences in the structural processes governing reward-attainment and not in differences in the levels of individual resources. Women lose and men gain from the way promotions are distributed.

Wolf and Fligstein (1979) used authority as the dependent variable in their analysis of data generated in the longitudinal Wisconsin Study of Social and Psychological Factors in Socioeconomic Achievements. They assessed the importance of three factors: women's qualifications, the behaviors and policies of employers, and the attitudes and behaviors of women themselves on women's opportunity to acquire positions of authority. Their results indicated that although women's qualifications accounted for a substantial amount of the gender gap in authority, in all cases, it was less important than the behaviors and policies of employers. Most of the gender differences in authority could be alleviated if women received the same returns to their job characteristics as men do. Although the analysis did not allow the authors to attribute unique portions of the authority gap to women's attitudes and behaviors (for example, desire for supervisory positions) and employers' behaviors and policies (for example, feelings about the appropriateness of women holding supervisory positions), the authors maintained that women inhibited about assuming positions of authority would not select positions with high likelihood of supervision. Thus, they concluded that employer behavior and policy were the critical factors in the outcomes and that the improvement of women's qualifications would not be sufficient to alleviate the male-female disparity in positions of authority in the workplace.
In an ethnographic study of public school districts in California, Ortiz (1982) examined the mobility of school administrators within the school hierarchy. Few women and minorities attained top administrative positions in school administration relative to their numbers in the teaching ranks. The results of her analysis reflected structural barriers to advancement for both women and minorities. White males acquired the positions (for example, the vice-principalship) they needed to acquire the requisite skills for advancement as well as the visibility needed for exposure. Women and minorities were not encouraged to seek nor were they appointed to these important stepping-stone positions. Ortiz traced the difficulties women and minorities faced in moving through each of the dimensions Schein (1971) described: hierarchical, functional, and centrality. Women were expected to remain in teaching roles or at least stay tightly tied to instruction (for example, reading specialist) while minorities were placed in minority schools and expected to be role models for their group and/or teach in those areas connected to their ethnic group. For both women and minorities, assumptions and expectations in regard to their interests and capabilities were made based on their gender and/or race. Ortiz documented negative consequences for those who violated those assumptions and openly aspired for central administrative positions.

Ortiz concluded that women and minorities were channeled into a limited number of positions (functional movement) which did not provide entry into administration (hierarchical movement), and were seldom in positions to attract the sponsorship necessary for moving into the core of the organization (centrality). Kanter's (1977) description of the impact of numbers and tokenism was exemplified in the physical and social isolation of both women and minorities in public school positions, the lack of opportunities for socialization in formal and informal settings, and the rarity of sponsorship which was described as a vital component in white male advancement in educational administration (Ortiz, 1982).

Implicit in several of the research findings reported here may well be the idea of "homosocial reproduction" described by Kanter (1977). She argued that persons who make
decisions to promote others to positions of responsibility or authority often seek persons similar to themselves in sex, race, status and background in order to minimize uncertainty, to increase the ease of communication, and to enhance the level of trust and comfort. Moreover, as Wolf and Fligstein (1979) concluded in their study of authority in the workplace: "Men are more likely to hire and fire, determine pay and supervise than women (p. 250)." Given the small numbers of women in the senior decision-making positions of most organizations, it is not surprising that their achievement is not that of men. Women's small numbers accentuate their minority status and their "different-ness," which in turn lessen their access to opportunities for sponsorship and advancement.

Each of the foregoing conceptualizations of the mobility process within organizations emerged from data representing organizations different in size and function and with different categories of employees and arrangements of work. It is the premise of this study that organizations influence individual outcomes by determining the distribution of positions and their respective rewards and by determining the policies and practices that govern promotion decisions. The view that individual attainment is determined by individual status and investment is no longer plausible when the organizational context and structure is acknowledged. Moreover, evidence suggests that organizational structure constrains opportunity for mobility for certain groups more than others (Kanter, 1977; Wolf and Fligstein, 1979; Halaby, 1979; Stewart and Gudykunst, 1982; Ortiz, 1982; Olsen and Becker, 1983; DiPrete and Soule, 1988).

The specific problem addressed in this study in the lack of advancement of women in higher education administration. By determining the distribution of positions and rewards and by determining the policies and practices that govern promotion decisions, higher education organizations may exert an effect on administrative advancement that disadvantages women. It is the intent of this study to extend the theoretical rationale for attending to the organizational structure of work, to examine the impact of structure upon the promotion outcomes of
Need for the Study

Research on higher education organizations has not focused on organizational structure as a factor which influences opportunity, rather it has focused on individual career histories. This literature has produced essential information about the importance of promotion for individual career paths. Most administrators tend to have a lifetime involvement in one occupation, and many expect progress in that career to continue within the broad domain of higher education, often within one institution (Sagaria and Moore, 1983). Moreover, when women change administrative positions they are more likely to move within the institution, while men are more likely to be recruited from outside the institution (Moore and Sagaria, 1981; Sagaria, 1988). Additionally, research on individual career outcomes has found differences in the outcomes of promotion for women and men (Frances and Mensel, 1981; Moore, 1983; Sagaria and Johnsrud, 1987b). However, with few exceptions (Ortiz, 1982; Gaertner, 1980), research on individual mobility patterns and rates has not yielded explanations for the differences in mobility experienced by women and men.

Furthermore, research has begun to examine individual strategies used to advance careers within higher education organizations. For example, the importance to one's career progress of sponsorship—the advocacy of a specific individual for advancement—(Moore, 1982; Sagaria, 1984), and accrual mobility—the creation of new positions through individual initiative—(Miner and Estler, 1985) have been emphasized. However, to examine strategies such as sponsorship or accrual as individual strategies ignores the organizational staffing function they serve. Strategies perceived to be individually oriented can become institutionalized; that is, individual strategies become supported by and embodied in institutional policies and decision-making practices. For example, sponsorship and position creation are two specific practices that
influence the opportunity for promotion in higher education organizations (Sagaria and Johnsrud, 1987b). When such mechanisms are formalized by policies and practices, they become part of the organizational structure of work that influences opportunity for promotion for individuals. By conceptualizing sponsorship and position creation as structural dimensions, they can be seen both as resources available to individuals and as resources available for organizational staffing decisions. The organization's interests are served as policies and procedures enable the matching of persons with appropriate knowledge and skills to vacant positions; the individuals' interests are served as policies and procedures enable them to change positions in order to accrue status, rewards, or experience.

The conceptualization of structural dimensions as resources available to both the individual and the organization is posited by Hodson (1982, 1983, 1986). He builds upon the structural dimensions that influence individual outcomes in order to explain the evolution of economic structure and its potential for serving both the employer and the employees in a work setting. Theoretically, this study extends Hodson's conceptualization of resources to the ability of women and men to utilize the resources within an organization to enhance their promotion outcomes. The lack of homogeneity of organizational work structures, such as promotion ladders and the rules governing job changing, has been a major criticism of attempts to assess the impact of structural dimensions on the outcomes of workers (Baron and Bielby, 1984; Baron, Davis-Blake, and Bielby, 1986; Spilerman, 1986). Thus, this study moves beyond the current theoretical debate, focuses the analysis on position-level variables and ascertains whether or not structural dimensions within the organization act as resources which can be measured as to their impact upon employee promotion. It refines the concept of resources within an organization by operationalizing the policies and practices guiding promotion decisions and the arrangement of work as structural variables.

In order to explain promotion outcomes for women and men, both individual and structural resources must be examined within the organization in which the promotion occurs.
The purpose of this research was to examine the promotions experienced by women and men as a function of their ability to use the individual and structural resources for mobility available to them. Specifically, the questions addressed were:

1) Do the individual and structural resources relevant to promotion explain the outcomes of administrative promotion within a higher education organization?
2) Do the individual and structural resources relevant to administrative promotion operate differently by gender?

Organization of the Study

The chapters that follow present the study conducted to ascertain the relationship between individual and structural resources and promotion in a higher education organization. Chapter II provides the theoretical framework for the study by tracing the emergence of new structuralism as an explanation for individual attainment. Hodson's theoretical contribution (1983) is summarized in some detail in order to illustrate the relevance of the resource perspective to the administrative structure of a higher education organization and the mobility of administrative employees. Chapter III presents the hypotheses and grounds each of the individual and structural resources hypothesized to be relevant to administrative promotion in the related literature. The method of the study is described in Chapter IV and includes a description of the data set and population studied, the measurement of the variables, and the nature of the analyses conducted.

The results of the analyses, reported in Chapter V, begin with descriptive data regarding the access of women and men to the individual and structural resources measured in the study. Three successive models of the multivariate regression on promotion outcome are then presented. Chapter VI discusses and interprets the findings within the context of the theoretical framework and prior work on administrative promotion. In the final chapter, the study
is summarized, limitations of the study are noted, and implications for theory, policy and future research are discussed.
CHAPTER II

THEORETICAL PERSPECTIVES

This chapter provides the theoretical framework that guided the study. The roots of new structuralism are traced to the more traditional explanations for individual attainment: status attainment and human capital. Criticisms of early structural models of economic segmentation and the debate regarding the appropriate level of analysis for measuring structural impact are discussed in order to provide a context for the approach taken in this study. Hodson’s conceptualization (1983) of economic structure evolving from multiple factors and serving as both resource and vulnerability to employers and employees is described in detail. Further support for his arguments is drawn from complex organizational literature that provided evidence of the multiple determinants of organizational structure. Finally, the relevance of the resource perspective to the administrative structure of higher education organizations and the mobility of administrative staff members is illustrated by outlining the historical evolution of administrative structure and describing the structural arrangements of work in academic organizations.

Emergence of New Structuralism

Traditional explanations of occupational mobility have been grounded in a functionalist perspective of stratification. This perspective assumes a competitive matching of particular positions with the skills and training of job seekers (Parsons, 1940). Thus, promotion within an organization is viewed as a rational process whereby all eligible employees compete for all
position vacancies. The functionalist approach assumes an open, competitive process in which employers have complete and accurate information about those seeking positions and position seekers have complete and accurate information about vacancies. This perspective undergirds traditional status attainment and human capital explanations for attainment that suggest that occupational mobility, and thus wage attainment, are related to such factors as family background, investment in education, and experience (Blau and Duncan, 1967; Treiman and Terrell, 1975; Becker, 1964; Polachek, 1981). Thus, individual achievement, conceptualized to be a function of individual characteristics, is determined in an open, competitive occupational marketplace.

**Status Attainment and Human Capital**

Status attainment studies have examined the impact of family origins and characteristics (for example, race, ethnicity, gender, place of birth, parents' socioeconomic status) on educational aspirations and attainment, and the impact of both educational attainment and family origins on occupational aspirations and attainment (Blau and Duncan, 1967; Hauser, 1971; Sewell and Hauser, 1972; Haller and Portes, 1973; Treiman and Terrell, 1975; Sewell, Hauser and Featherman, 1976; Featherman and Hauser, 1978; Kerckhoff, Campbell, and Trott, 1982; Grusky, 1983; Niedert and Farley, 1985; Bose, 1985; Smart, 1986). In the status attainment tradition, a causal model built to explain the earnings of women relative to men might measure the effect of parents' educational attainment and occupational status upon respondent's education and first job status, and then the respondent's education and first job status might in turn be used as independent variables to measure their effect upon the respondent's earnings.

Human capital studies have examined occupational outcomes as returns to investments in human capital, such as education, experience, training, health and migration (Schulz, 1961; Becker, 1962, 1964; Mincer, 1974; Polachek, 1981). For example, explanations for the lower wages and attainment of women is explained as a function of women's family responsibilities that
influence the amount of education they are able or willing to invest in, the number of hours they are willing to work, the continuity of their participation in the labor force, the amount of experience they are able to accrue, and their ability to pursue opportunities for advancement. Thus, according to the human capital perspective, different accumulations of human capital result in different levels of productivity, and different levels of productivity influence wage attainment and advancement.

**New Structuralism**

Beginning in the mid-seventies, status attainment and human capital models were criticized for explaining disparate outcomes by emphasizing individual characteristics to the exclusion of structural characteristics of the economic marketplace (Coser, 1975; Stolzenberg, 1975; Bibb and Form, 1977; Beck, Tolbert and Horan, 1978; Horan, 1978). This early structural work countered the assumption of an open, competitive market by identifying segments of the economy--core and periphery sectors (Averitt, 1968) and labor markets--primary and secondary jobs (Doeringer and Piore, 1971) that provided explanations for wage inequities while controlling for individual characteristics (Beck, Tolbert and Horan, 1978; Tolbert, Horan and Beck, 1980).

One key theoretical work that challenged the assumption of one homogeneous market was that of institutional economist Averitt (1968). He posited a dual economy comprised of center and peripheral firms. Although he focused upon firms, his views came to be viewed as descriptive of two sectors of the economy: core industries characterized by large size, high profits and productivity, capital intensity (high capital investment relative to labor), concentration, and product diversity; and peripheral industries characterized by small size, low profits and productivity, labor intensity, competition and lack of product diversification.

Doeringer and Piore (1971) described primary and secondary labor markets--distinctions regarding the nature of jobs. Jobs in the primary market were "good" jobs with high
salaries, stability, good working conditions, formal and explicit work rules, policies and procedures, and opportunity for promotion. In contrast, jobs in the secondary market were "bad" jobs, with low wages, lack of stability and formal work rules and policies, poor working conditions, and little opportunity for promotion. Piore (1975) further differentiated upper and lower tiers of the primary labor markets to describe skilled crafts jobs. For example, the qualities described above as "good" jobs exist primarily for professionals while skilled craftspersons enjoy a lesser version—good wages and work conditions with stability and work rules dependent upon unionization.

Doeringer and Piore (1971) accounted for internal labor markets by arguing that they were efficient and in keeping with tradition, increased specialization, and on the job training. However, another explanation, provided by Edwards (1975), posits that work is structured differently in each of the economic sectors. That is, the core industries have an interest in stabilizing their work force and controlling the flow of workers because of their increased size and capital intensity. Core industries have more of an investment to protect. They require bureaucratic control through formal work rules and procedures due to size and complexity; old control systems, such as direct, simple control of small, competitive firms or the technical controls possible on an assembly line, are no longer sufficient. Thus, primary labor markets, exist in the large, bureaucratic firms in order to control workers, and secondary labor markets exist in the small, competitive firms in which it is important to respond quickly to environmental forces with, for example, firings and lay-offs.

Edwards' conceptualization (1975) provided a theoretical link between dual economy and dual labor market perspectives, and in turn, spawned work that assumed a correspondence between sectors and markets. Beck, Horan, and Tolbert (1978) provided one of the early efforts to ascertain whether worker membership in a core or peripheral industry influenced earnings. Their work was criticized on both theoretical and empirical grounds (Hauser, 1980). Their findings, however, were important in that, although mixed, they found that after controlling
for individual differences, sector membership mediated individual outcomes. Tolbert, Horan, and Beck (1980) attempted to enhance the sophistication of the assignment of industries to sectors through factor analysis (assignment had been accomplished by inspection in the earlier work). They identified two factors reflecting the degree of oligopoly versus competition in industrial settings which they argued corresponded to the core and periphery. This effort was criticized as circular because they used characteristics of economic segmentation to define sectors, and then argued that the analysis was successful because it differentiated sectors according to those characteristics (Hodson and Kaufman, 1981). Zucker and Rosenstein (1981) examined four of the efforts made to assign industries to the core and periphery (Beck et al., 1978; Tolbert et al., 1980; Bibb and Form, 1977; and Hodson, 1977). They found that assignment of industries to sectors varied with researchers and that the outcomes did not show direct correspondence between dual labor markets and economic sectors.

Dual economy and dual labor market theories have been criticized both empirically and theoretically (Wachter, 1974; Cain, 1976; Hauser, 1980; Zucker and Rosenstein, 1981; Hodson and Kaufman, 1982; Hodson, 1983). Empirical findings have not supported a consistent alignment of the dimensions of the dual industrial structure or a consistent correspondence between the dual economic sectors and dual labor markets. In fact, evidence contradicts the assumption of homogeneity, i.e. that core sectors and primary jobs (and periphery sectors and secondary jobs) are aligned (Wallace and Kalleberg, 1981; Hodson and Kaufman, 1982; Parcel and Sickmeier, 1988). Dual economy and dual labor market approaches have been further criticized on theoretical grounds for their descriptive, rather than explanatory, nature (Hodson and Kaufman, 1982).

The implications of these criticisms will be considered further; however, "new structuralism" as an explanation for inequities in the wage attainment and mobility of workers has shifted from the early emphasis on the impact of a dualistic economy and dual labor market structure to models that emphasize the impact of structural dimensions of economic
organization or labor market characteristics upon worker outcomes without categorizing markets or firms or industries into a finite number of sectors or labor markets (Wallace and Kalleberg, 1981; Parcel and Mueller, 1983). Thus, more finely grained analyses can be applied to the impact of structural dimensions on worker outcomes.

Level of Analysis Debate

Debate also surrounds the appropriate level of analysis for understanding individual outcomes (Stolzenberg, 1978; Baron and Bielby, 1980, 1984; Hodson, 1984; Spilerman, 1986). At what level of structure are individual outcomes influenced? Arguments can be made for sectors, markets, industries, firms, organizations, occupations, and jobs. Baron and Bielby (1984) argue that analyses at the industrial level assume organizations are homogeneous. They contend that the more direct impact upon worker outcomes originates at the organizational level, and that organizations must be examined for differences in the arrangement of work which may influence outcomes. Moreover, the debate has been extended to the lack of homogeneity within the organization. For example, Baron, Davis-Blake and Bielby (1986) argue that opportunity structures vary within organizations because promotion ladders vary according to clusters of jobs that may be associated by occupation, skill or gender composition. Similarly, Spilerman (1986) argues that scholarship regarding the impact of industries and organizations upon worker's outcomes ignores the differences in rules and procedures for filling vacancies. The relationships between jobs, pay associated with jobs, and practices for filling jobs are codified and become the rules which must be examined in order to understand inequities in the workplace and the perpetuation of advantage.

Assumptions of economic duality are not helpful in understanding disparate individual workplace outcomes within one organization. That is, conceptualizations of core/periphery sectors or corresponding primary/secondary markets do not explain differential outcomes within one organization (Baron and Bielby, 1984; Spilerman, 1986). Furthermore, neither the
dimensions utilized for measuring the impact of economic organization or the impact of labor market conditions are relevant within one organization. In fact, a recent study of a fast food retailer illustrates a case in which dimensions of primary and secondary labor markets exist within an economic structure that is characterized by dimensions considered to be core and peripheral (Parcel and Sickmeier, 1988). Although categorization of this firm by sector or market is found to be unwarranted, the characteristics typically used to determine categorization were found to be useful. For example, crew members and managers differed in pay levels and turnover consistent with dual labor market characteristics; the fact that these jobs occur within one firm may be a function of firm characteristics that are consistent with the core and periphery of the economy. Thus, if this firm were to be categorized as either core or periphery, the categorization would obscure characteristics that reflect meaningful differences for employees.

In order to examine the impact of organizational structural characteristics, the analysis must include relevant organizational variables. The level of analysis dictates the appropriate level of structural dimensions to be considered. In order to understand the impact of structure upon individual outcomes within jobs, specific dimensions of the organizational structure that operate to match persons to jobs must be examined (Granovetter, 1981; Rosenbaum, 1984; Spilerman, 1986).

Resource Perspective

Dual economy and dual labor market models were criticized for not providing adequate theoretical rationale for economic segmentation. These perspectives were descriptive in nature and lacked an explanation for the origins of economic segments (Hodson and Kaufman, 1982; Hodson, 1983). The resource perspective posited by Hodson (1983) concurs with the dualists' critique of assumptions of open competition and labor market homogeneity (Averitt, 1968; Doeringer and Piore, 1971) but is not constrained by assumptions of duality. This perspective conceptualizes the multiple dimensions of economic and labor market organizations as
resources and vulnerabilities that are potentially available to both employers and employees. Thus, economic and labor market structure are viewed as potential resources for both sets of actors in the workplace. That is, the dimensions of economic segmentation are considered to be resources utilized with differential effectiveness under diverse conditions for different groups. Moreover, Hodson argues that the ability to use the resources available is a function of social and power relations on the job (1983). Thus, sociological concerns of social relations and the interactional nature of power are brought to bear upon economic interpretations of the dynamics within the workplace.

Resource theory is grounded in an expanded interpretation of the organizational history of capital and labor provided by Edwards (1975). Between 1890 and 1920, competitive, local-market, small business enterprises gave way to increasingly monopolistic, national, and large corporate enterprises. Edwards argues that the increases in the size and scale of firms resulted in new control over the organization of work. He outlines transitions from 'simple' to 'technical' to 'bureaucratic' means of control. Simple control through personal hierarchical supervision was no longer possible as firms grew; thus, simple control gave way to technical control as assembly line systems tied workers to interdependent roles with each other and with machines. As the economy shifted from manufacturing to service, the application of technical controls became more difficult because increased numbers of workers were employed in service, clerical and managerial functions as opposed to blue collar jobs. Increased numbers of service workers, coupled with the increased labor activity and organization, resulted in the movement to bureaucratic control as rules, procedures and expectations were formally established. Edwards characterizes this shift in control of the workplace as a shift in the social relations of production.

Large bureaucratic organizations control labor by differentiating jobs, investing in training, creating job ladders, and protecting workers from competition by utilizing internal labor markets. These modes of control contrast markedly from those in smaller, more competitive organizations in which supervision is personal and the threat of firings and lay offs are used.
Thus, the organization of work differs in smaller firms in which jobs are unstable, investment in workers is nonexistent, and turnover is high. While conflict theorists such as Edwards view the mechanisms instituted by large bureaucratic organizations as control mechanisms, more functionally-oriented theorists view the same mechanisms as efficiency measures that increase profits and worker returns (Baron, 1984).

Hodson (1983), however, draws on both the control and functional perspectives to contend that the administrative structures that emerged as organizations grew are diverse, not amenable to straightforward classification along dimensions such as size or capital intensity, and that these structures provide potential resources to both employees and employers. He argues that not all aspects of the administrative structure were developed with labor control in mind. For example, the adoption of advanced technologies may well result in deskillcd jobs and and a greater division of labor, but the motivation is to increase profit opportunities rather than simply to control labor. Similarly, more complex planning and administrative structures are developed in order to deal with insecure, external environments—not merely to control labor. Strategies and structures emerge as a result of multiple factors: the pursuit of profit, labor control, technological advancement, and environmental control. Furthermore, the strategies and structures produced are diverse. Different organizational needs and environmental pressures produce different responses. Hodson offers this diversity as further argument for the need to move beyond dualistic notions of the economy and attend to the impact of specific dimensions of the organizational structure at the level at which they occur.

Determinants of Organizational Structure

Support for Hodson's arguments can be found in the complex organization literature that seeks to explain the determinants of organizational structure. The structure of the organization in this literature is broadly defined as the internal differentiation of components and the patterning of relationships (Thompson, 1967). Woodward (1965) found in a study of
manufacturing firms that organizational structure was a function of the technology of the organization. She differentiated unit, mass and process production and found that the degree of uncertainty and complexity varied with the type of production and influenced structure. For example, control mechanisms differ by production type. Unit (small batch or custom) production demands short communication lines and close relations between development, production and sales efforts while mass production requires formal, clear definition of responsibility to ensure standardization. In contrast, formal and carefully defined responsibilities can be detrimental to success in customized production. Thus, Woodward argues that optimal structure of the organization is determined by the technology in place, and that structures vary with type of production.

Expanding upon these arguments, Lawrence and Lorsch (1967) studied the impact of external environments upon the internal functioning of organizations. They examined administrative structure of marketing and research in addition to Woodward's focus on technology. As a result of their study of manufacturing firms (plastics, container and consumer foods), they concluded that the more diverse the environment, the more differentiated the structure of the organization, and the more elaborate the integrating devices needed for success. For example, in the plastics industry, the environment was uncertain and complex. There was high differentiation, that is, segmentation and specialization between marketing, research and development. Consequently, there was also high integration, that is, persons designated as integrators to coordinate specialized functions. In the container industry, a far more homogenous and stable environment, there was low differentiation, little segmentation and specialization by function, and thus, little need for complex integrating functions. Lawrence and Lorsch conclude that the administrative structure of an organization evolves in response to the external environment. Similarly, Thompson (1967) argues that organizational structure is governed by factors of technology and environment. He posits that organizations attempt to "seal off" their technical "core" from the uncertainties of the external environment. Thus in this
conceptualization, the structure of the organization is a function of efforts to protect the major activities of the organization (technical "core") from the pressures of the external environment.

Each of these studies (Woodward, 1965; Thompson, 1967; Lawrence and Lorsch, 1967) provides support for Hodson's contention that administrative structures of organizations are the product of more than an effort to control labor. Pursuit of profit, technological advancement, environmental control, and labor control determine administrative structures. Thus, it is an oversimplification to conceptualize structure as a resource for employers used to control employees.

It is an empirical question as to whether certain aspects of organizational structure serve the interests of employers, employees, both or neither. Explanations based upon control and efficiency interpretations reflect different theoretical perspectives grounded in different social and political world views (Baron and Bielby, 1980). Control perspectives tend to be derived from neo-Marxist interpretations of the economic order (Stone, 1974; Braverman, 1974; Gordon, 1977) while efficiency perspectives tend to be grounded in neoclassical and industrialism theories (Lenski, 1966; Doeringer and Piore, 1971; Bell, 1973). These conflicting interpretations posit different motivations for organizational structure: control of workers for profit maximization is contrasted with adaptation for rational and technological progress. Although motivations do not lend themselves to empirical analysis, outcomes can be empirically established. It is argued here that outcomes, whether intended or unintended, are a function of organizational structure. Thus, organizational structures need to be examined as potential resources and vulnerabilities to both employers and employees.

Role of social relations and power

Hodson conceptualizes organizational structure as evolving from the interaction between employees and employers, rather than superimposed by employers upon employees. This view of organization structure as a cooperative system has roots in early complex
organization literature. For example, Selznick (1948) argued that "control and consent cannot be divorced" (p. 25). He maintains that organizations are more than economic systems; they are cooperative systems in which authority is a matter, not only of legalities and coercion, but also of cohesion and persuasion.

Hodson examines specific dimensions of the organization as functions of the interaction between employers and employees. He examines concentration, capital intensity, and size to illustrate that each of these dimensions may hold advantage for the employee as well as the employer. For example, he counters the notion that monopoly position is used to "buy off" employees as a means of control by recognizing the active role played by employees in the exchange. In other words, concentration may provide employees with an opportunity to demand and receive a greater share of the profits. Thus concentration may serve the interests of both employer and employee. Another example of potential mutual advantage is the increased responsibility that workers gain as capital intensity results in the use of increasingly expensive machinery and equipment. Not only do employers increase profits as a result of the increased capital utilization, but also employees may secure improved working conditions or rewards as a result of the vulnerabilities of the production equipment (and the implicit threat of sabotage). The third example that Hodson explores to illustrate the mutual advantage of structural resources is the role of organizational size. Large firms have the resources to manipulate the environment to maximize profits; large size, however, may enhance employees' efforts to secure improved working conditions by increasing the opportunity for communication and organization (relative to the difficulty of such efforts when employees are dispersed in many smaller firms).

Thus, the resource theory as posited by Hodson moves beyond economic control as the major force at work in determining workplace outcomes. Pursuit of profit, technological advancement, environmental control, and labor control are coupled with dimensions of social relations and power to determine administrative structures. Employee outcomes are not only
the result of structures of control enacted to maximize profit but also they are the by-product of social and power relations on the job. The economic structure influences outcomes for both employees and employers but the impact is mediated by the social relationships between these sets of actors.

**Relevance of the Resource Perspective for Higher Education Organizations**

Higher education organizations are typically included in the "professional and related services industries" when they are classified in the core or peripheral sector of the economy (Zucker and Rosenstein, 1981). The "educational industry" as a whole is difficult to classify as core or periphery. Educational organizations are part of a service industry which makes traditional factors such as concentration and profit of limited value for classification. Moreover, educational organizations illustrate the lack of correspondence between economic sector and labor market. For example, if it is accepted that the industry belongs in the periphery where it is typically assigned, then presumably, the jobs within the industry should be secondary or "bad" jobs or at least in the "lower tier" of the primary market (Doeringer and Piore, 1971; Piore, 1975). However, when faculty, administrative and staff jobs within education are examined according to labor market dimensions such as entry and advancement, degree of autonomy, wages, work conditions, due process, and social control, the jobs within the group cannot be characterized as "bad;" at the least, these jobs represent a mixture of upper and lower tier characteristics of the primary market.

Furthermore, educational organizations illustrate the lack of homogeneity within an "industry." Traditional characteristics used to differentiate industries, such as institutional size, competitiveness, unionization, employment conditions and wages, differ between elementary/secondary schools and higher education organizations, and differ within higher
education organizations according to type—doctoral-granting, comprehensive, liberal arts, and two year.\(^1\)

The lack of homogeneity across educational organizations limits the usefulness of using classification schemes to determine, for example, the impact of sectoral placement on employee outcomes. Rather than attempting to identify dimensions along which educational organizations can be classified, the resource approach offers a conceptualization which acknowledges organizational differences and provides theoretical rationale for examining the impact of specific dimensions on employee outcomes. The relevance of resource theory to higher education organizations can also be seen 1) in the historical evolution of administrative structures in higher education, and 2) in the structural arrangements of work in academic organizations.

**Evolution of administrative structures in higher education**

Resource theory is historically grounded in the emergence of capital and labor structures at the turn of the century; the concomitant emergence of American universities is discussed here as support for the relevance of resource theory to higher education organizations. The early decades of the 1900's were a period of marked growth in the numbers of students, faculty and administrative staff of the major universities (U. S. Office of Education, 1954). The percentage of 18-21 year olds enrolled in college increased from 4.01 in 1899-1900 to 15.32 in 1939-1940. Faculty and staff increased from 15,809 to 131,152 during the same period. As American firms grew in size and bureaucracy, so did universities. The growth of corporations and universities at the turn of the century resulted in an unprecedented growth in the numbers of administrative and managerial personnel: the percentage of white-collar

\(^1\)For example, see the Digest of Educational Statistics: 1985-86 for comparative statistical information covering American educational organizations from prekindergarten through graduate school. The heterogeneity of the “education industry” is evident.
workers in the labor force increased from 18% to 29% between 1900 and 1930 (Kaplan and Casey, 1958). As the size of higher education organizations grew, administrative ranks expanded. In 1860, the median number of administrative officers was four; in 1933, it was 30.5 (Rudolph, 1962).

Administrative practices and techniques of management were developed and implemented. The origins of modern management theory are traced to Frederick Winslow Taylor whose theory of scientific management stressed the application of the systematic analysis of science to management methods, emphasizing routine, order, logic (Taylor, 1911). Early attempts to routinize administration in higher education drew upon Taylorism (Burris and Heydebrand, 1981). Rules, procedures and expectations were codified and formally established. The first published work on academic management appeared during this period of growth (Elliot, 1908; Lefarre, 1914; Burton, 1916). These early works were descriptive, focusing on the roles and functions of the trustees, the president, the deans, directors and accountants, and the secretaries. Jobs within college and university administrative staffs became defined by task and function as well as by the hierarchical ordering of line and staff positions. Authority became invested in positions rather than persons.

Fragmentation and specialization of function accompanied the growth of higher education institutions. For example, increased diversity in educational philosophy, the specialization and differentiation of faculties into departments of learning, and the growing numbers of students contributed to a fragmentation that was unknown in the early small, cohesive institutions (Veysey, 1965; Brubacher and Rudy, 1968). As universities grew and fragmented, administrative functions became more standardized and centralized. Universities became increasingly bureaucratic. Perspectives differed, however, regarding the impact of bureaucratization on higher education organizations. Explanations for the growth of bureaucratization in educational organizations during this period parallel those offered to explain the organizational history of capital and labor.
Control versus Efficiency

One popular accounting of the increasingly bureaucratic administration is that it was promulgated by increasingly business-oriented governing board members (Veysey, 1965; Metzger, 1955). Between 1860 and 1930, the occupations of members of governing boards shifted from a majority of clergy to a majority of business-related professions (Beck, 1947). "The control of higher education in America, both public and private, has been placed in the hands of a small group of the population, namely financiers and businessmen (p. 10)." Historical accounts of this period report the academic ranks railing against the intrusion of a profit mentality into academe as well as cautioning that increased bureaucratization was a means for governing boards to exert more control over faculty (Veblen, 1918; Metzger, 1955; Rudolph, 1962).

In Veblen's The Higher Learning in America: A Memorandum on the Conduct of Universities by Business Men (1918), he decried business principles applied to academic affairs as "business-like administration of the scholastic routine [which will] lead immediately to bureaucratic organization and a system of scholastic accountancy (p. 223)." In a similar vein, Cattell (1913) advocated a revamping of university control and the establishment of a representative democracy. He published a group of letters from eminent academic scientists calling for "a change in administrative methods in the direction of limiting the powers of the president and executive officers and making them responsible to those engaged in the work of teaching and research" (p. 24).

Not all Presidents supported the increased bureaucratization of higher education. A. Lawrence Lowell, President of Harvard, 1909-1934, objected to the application of industrial principles to education:

"...whatever other forms of corporate organization might exist, it is natural that we should take our ideas from the one to which we are most accustomed [the industrial], and apply them to institutions of all kinds. Yet to do so in the case of universities and colleges, where the conditions are very different, creates confusion and does harm. In
In this case, there are no owners who take the risk of the business. The institutions are not founded for profit, [...] the trustees are not representatives of private owners, for there are none. They are custodians, holding the property in trust to promote the objects of the institution" (Lowell, 1934, p. 282).

Although a control perspective emerges in this literature as it does within the accounts of capital/labor growth, it is countered with a functional, efficiency perspective. Bureaucratic administration is viewed not only as a means to control faculty but also as an efficient way to run an organization. Stevenson, a professor at New York University, argues in "University Control" (1902) for more efficient control of the university: "Let the business common sense, which has made the United States preeminent in commerce, be applied to university matters and it will give us equal preeminence in education (p. 761)."

Support for the functional, efficiency perspective is provided by Veysey (1965) who argues that the rise of academic bureaucracy can be attributed to the practical problems it was intended to solve. Institutions which had had few formal rules began codifying them; for example, students wanted to know what was expected, faculty felt the need to clarify degree requirements, and administrators were moving toward standardizing entrance requirements. Accreditation became a major force after 1901, and the Association of American Universities was founded in 1900 to establish uniformity of standards in graduate schools. Bureaucratization, from this perspective, was necessary to solve problems created by growth and to establish standards to protect students.

Structure as resource and vulnerability

The administrative structures of higher education are also depicted as evolving to benefit faculty. It is argued that despite fear of control, faculty in this period desired job security (Metzger, 1955; Veysey, 1965). At the same time that the protection of civil service grew in government and seniority in industry, salary schedules and tenure became important to faculty members. Faculty could use the protection of rules and the buffer of the bureaucratic maze to
pursue their own interests. Increased academic freedom may have been an unintended consequence of increased structure (Veysey, 1965). Bureaucratic directives can provide more protection than directives subject to the discretionary whim of the Board or the President (Metzger, 1955). Metzger further argues that bureaucracy can operate through autocracy or democracy, and those institutions that maintained a balance between autocracy in the administrative spheres and democracy in the academic spheres met with the least negative reaction on campuses.

Bureaucratic control emerged in the American universities as an efficient response to growth and fragmentation as well as to control faculty. The goal became to institute efficiency and control measures without offending the sensibilities of faculties. Bureaucratic control, however, served the interests of faculty in terms of autonomy and job security by formalizing salary schedules and tenure and promotion guidelines. As suggested by the resource theory, dimensions of the administrative structure of higher education organizations may serve as resources or vulnerabilities both to the "employees" and "employers."

The historical evolution of the administrative structures within higher education organizations has been outlined here to emphasize the similarities between the emergence and growth of bureaucratic structures in higher education and corporate settings. Theoretical support for the similarities is also offered by Stinchcombe (1965) who argues that organizational form, both structure and technology, reflects the historical condition that prevailed in the environment when the industry first emerged. Both universities and firms grew and established administrative forms during the early 1900's that were to characterize their functioning until the 1940's (when rational bureaucratic management was challenged by the human relations movement).

Hodson grounds the resource perspective (1983) in the organizational history of capital and labor. This history has strong parallels with the organizational history of governing boards, faculty and administrative staffs of colleges and universities. The control versus efficiency
perspectives have been identified in the historical accounts of the growth of academic administration. Similarly, depending on the perspective taken, administrative structure can be viewed as a resource or a vulnerability to administrators and faculty as it is to owners and workers.

**Structural arrangements of work in academic organizations**

Just as the growth in size of colleges and universities at the turn of the century prompted an examination of the impact of bureaucratization, so did the expansion of the 1960's (Clark, 1963, 1968; Millet, 1962; Lunsford, 1968; Blau, 1973). Clark's comment in 1968 that "growth is too fast, specialization is too fragmenting, economic logics of efficient manpower processing are too much in command" (p.24) echoes the concerns of critics of growth at the turn of the century. Lunsford (1968) points to the new pressures on colleges and universities of visibility and accountability during this period. As a result of increased federal and state funding of higher education, there is increased scrutiny of "cost effectiveness" and "efficiency" by government officials—and increased efforts by administrative staff to meet their demands. The period of growth in the 1960's also spawned renewed interest in identifying the determinants of structure in complex organizations. Studies of the structural arrangements of work in academic organizations emerged.

The determinants of administrative structure in higher education have been examined using theoretical frameworks inspired by the work of complex organization theorists, such as Woodward (1965), Lawrence and Lorsch (1967) and Thompson (1967). For example, Baldridge (1971) utilizes Thompson's concept of organizational response to environment to examine the impact of environmental pressure upon the professional autonomy of faculty as measured by their control over central tasks of the organization (teaching and research), decision making, evaluation systems, and the standardization of their work. In a national study of colleges and universities, he found that environmental pressure, such as external control of resources and dependency upon external clientele, influenced the autonomy of faculty. High
environmental pressure was related to low professional autonomy, that is, the structuring of relationships to control tasks and influence decisions was a function of the external environment.

Blau (1973) studied 115 four-year colleges and universities to explore the influence of bureaucratic structure upon academic work. His effort extends the work of Lawrence and Lorsch (1967) by not only examining the determinants of differentiation and integration in structure but also by examining the impact of differentiation and integration on academic work. Blau found that size of organization is strongly related to differentiation; specifically, large size increases both vertical and horizontal differentiation of universities. Increased complexity of task is also correlated with increased complexity of vertical and horizontal structure. For example, Blau found that the administrative area of computing in colleges and universities is a functional area of increased technological complexity that has resulted in increased vertical and horizontal differentiation.

Moreover, Blau discusses alternative explanations for the differentiation of structure. He finds no support for explanations instrumental to the organization such as reduced labor costs and economic efficiency. Rather he argues that specialization of function (differentiation) is best explained in non-economic terms. Specialized scientific or scholarly work enhances academic standing which benefits the individual and the organization. Specialized departments raise the reputation of a university and attract well-qualified and productive faculty. Moreover, the specialization serves to unite the members of each specialization and enhance the colleague climate that can spur research efforts. Thus, structural differentiation can serve the interests of both the individual and the organization; that is, both the faculty member and the institution benefit from increased academic standing. At the same time, it is argued that differentiation hampers social integration and communication (Lawrence and Lorsch, 1967). Blau counters this vulnerability created by structure with a contrasting point of view: while differentiation can be an obstacle to communication across the organization, differentiated units
such as departments can be well served because their difference from other departments is formalized and their homogeneity increased. Departmental integration is enhanced although integration across the organization may be hampered. Thus, a structural dimension such as differentiation may be a vulnerability to the organization at the same time it is a resource to individuals.

These examples of the impact of structure in higher education organizations are analogous to Hodson's arguments regarding the impact of structure in industries and firms. Administrative structure in higher education can be conceptualized from both a control and functional perspective; depending on the perspective taken, structure can be viewed as both a resource and a vulnerability to employees. From a conflict/control perspective, it is argued that within universities, control has become increasingly centralized, that both the ends and means of education are becoming quantified, that planning and decision making are becoming removed from human volition, and that technological innovation deskills jobs and undermines human interaction (Burris and Heydebrand, 1981). From a more functional perspective, centralization is efficient, quantified planning and decision making is a rational and effective means for assessing needs and justifying resource allocation, technological innovation reduces unskilled tasks and creates more skilled, autonomous jobs.

Hodson's (1983) conceptualization of resources and vulnerabilities encompasses these contradictory perspectives. The organization of work within the university has evolved from its bureaucratic roots, and current shifts reflect the impact of technological advancement. The dimensions that characterize this shift have not been developed solely to control faculty and administrative staff; rather institutions respond to a variety of environmental pressures, including for example, inflation, technological change, demographic shifts in the college-age population, and shifts in governmental involvement.

Moreover, faculty and administrative staff benefit when higher education organizations take steps to survive financial difficulties, as jobs are up-graded or new jobs created to meet the
demands of technological change, or as policies and procedures are enacted to protect employees from shifts in public demand for curriculum or service. At the same time, faculty and administrative staff may not be well served by certain strategies and structural responses to environmental pressure or technological change. The steps taken to survive financial difficulties may mean the loss of resources to particular units; jobs may be deskilled in response to technological change; and policies may be enacted in response to public demand that decrease the discretion or freedom faculty and staff enjoy. Thus, the structural arrangements of work within universities can be conceptualized as potential resources or vulnerabilities to employees (the faculty and administrative staff) and the institution. Rather than assuming that structure serves the interests of employers to the detriment of employees (or vice versa), it is an empirical question as to whose interests are or are not served by the structural dimensions.

**Resource Perspective and Administrative Promotion**

The structural dimensions of concern in this study are those that influence administrative promotion. Promotions are a primary means for administrative staff to develop their careers. The role of promotions for administrative careers differs from the role of promotions for faculty members. Academic institutions are professional organizations in which the roles of line and staff are reversed from that found in most descriptions of non-professional complex organizations, such as most for-profit firms (Etzioni, 1964). In profit-making firms, the major authority for goals and activities typically rests with administrators in line functions while professionals provide staff support. This contrasts with academic organizations in which the faculty who hold professional positions have the authority for the major goals and activity (line functions). The administrative staff serve in a support capacity (staff functions or secondary authority for the means to support major goals and activities).

Professionals are engaged in a life-time occupation; promotion does not serve professionals in the same way it serves administrators (Goode, 1957). Although faculty do
progress through specified professorial ranks, these ranks do not represent a major change of role or responsibility (Finkelstein, 1984). Faculty enter their first position as professionals, and continue through their careers to perform basically the same tasks of teaching, research and service. Administrators develop careers by changing positions as they accumulate skills and experience (Sagaria and Moore, 1983; Moore, 1983). They may move laterally or vertically within or between institutions to build their careers. For purposes of this study, the focus is on the administrative structure as it relates to the promotion of administrative staff. Thus, it is argued here that the structural arrangements of work serve as resources and vulnerabilities to administrative staff members as they seek to build careers in a higher education organization.

Relatively little attention has been paid in the study of higher education to the worklives of administrative staff. Clark (1983) argues that the expanding administrative culture has been one of the least noticed and most important developments in higher education. Historically, the few administrative positions were filled by faculty members for short periods of time or as interim assignments. These faculty members could return to academic appointments when their administrative roles ended. As the ranks of administrative staff mushroomed, however, the specialization of expertise, skill and training needed for administrative tasks resulted in increased numbers of professional experts--specialists in the administration of higher education (Scott, 1978).

**Simple and unitary structures**

The structural arrangement of work for the administrative and professional group is an example of what has been labeled by Spilerman as a unitary structure (1986). Spilerman distinguishes between two organizational designs regarding the work careers of employees: a simple structure and a unitary structure. A simple structure refers to an administrative arrangement in which the details associated with salary advancement and promotion are specified in a temporal framework, often in the form of a schedule. Firefighters in fire
departments and teachers in school systems are offered as examples of employees working within a simple structure. Advancement in salary or position is not left to managerial discretion but is typically regulated by such characteristics as seniority or education. This structure is often the result of unionization and the effort of unions to standardize work arrangements and decrease managerial discretion.

The simple structure is contrasted with the unitary structure: a strategy of human resource management in which the organizational rules do not constitute explicit regulations, but rather are a set of norms concerning prototypical career development applied in personnel decisions. Management retains flexibility regarding salary increases and promotions. Spilerman argues that unitary structure is common in large non-union firms with many departments and a wide variety of occupations.

Each of these structures is also associated with different compensation systems. The simple structure is based upon the assumption that employees enter at the same time in similar positions and progress together. The years of service or the educational level attained correspond to a salary level within the organization. Under the unitary structure, because a more complex array of positions, departments, ladders and career lines exists, a framework of rules governs salary advancement. Typically, job titles are classified as to the knowledge, skills, and experience required as well as some judgment as to the worth of the job to the firm. Then the titles are mapped onto a hierarchy of pay levels which are associated with salary ranges.

Administrative structure as unitary

The unitary structure described by Spilerman portrays the structural dimensions operating in regard to promotion within a large organization such as university administrative staff: a) persons with appropriate knowledge, skills, and experience are matched to jobs requiring those knowledge, skills, and experience; b) this matching occurs within a human resource system which provides for managerial discretion and flexibility by establishing a set of
norms for decision making; c) the compensation system is based upon a set of rules for classifying jobs and assigning salaries to classifications. Persons are matched to positions, and only indirectly to salaries. Thus, promotion requires the managerial decision that an individual has the requisite characteristics to perform in the vacant position.

In order to study the outcomes of promotion, both individual characteristics and the process for matching persons to jobs must be examined. Thus to extend the resource perspective to promotion, individual characteristics are conceptualized as the resources or vulnerabilities brought by the individual to the organization. These individual characteristics may or may not serve the best interests of the individual or the organization. The policies and procedures governing the person-job matching process and the arrangement of work within the organization are structural dimensions conceptualized as potential resources or vulnerabilities created and practiced by the organization. These structural dimensions may or may not serve the best interests of the individual or the organization. The organization's interests are served as policies and procedures enable the matching of persons with appropriate knowledge and skills to vacant positions; the individuals' interests are served as policies and procedures enable them to change positions in order to accrue status, rewards, or experience. Both individual characteristics and structural dimensions must be examined for their ability to explain variance in promotion outcomes. The specific individual and structural resources hypothesized to be important to the outcomes of promotion in this study are developed in the following chapter.
CHAPTER III

HYPOTHESES AND RELATED LITERATURE

In an effort to extend the resource perspective posited by Hodson (1983) to promotion, both individual characteristics and structural dimensions were explored as potential resources or vulnerabilities to both the individual and the organization. The resources and vulnerabilities posited to be relevant to promotion in this study are 1) those resources and vulnerabilities characterizing the individual (gender, education, experience, age and race), 2) those resources and vulnerabilities characterizing the promotion process and position to which the individual was promoted (formal sponsorship practices, the creation of new positions, and institutional resource allocations), and 3) those resources and vulnerabilities characterizing the work structure and position from which the individual was promoted (prior work structure and prior pay range). These three sets of dimensions provided an organizing framework for this study. The theoretical rationale, relevant literature and specific hypotheses are developed in the following sections; however, first it is important to further clarify the process of matching persons and jobs as it is conceptualized to operate for administrative staff within the context of a higher education organization.

Person-Job Matching Process

The literature on administrative groups in organizations indicates that opportunity for mobility reflects decisions of employing organizations as guided by policy and procedure
(Spilerman, 1977, 1986; Kanter, 1977; Rosenbaum, 1979, 1984; Gaertner, 1980; Ortiz, 1982; Moore and Sagaria, 1982; Sagaria and Moore, 1983). Specific personnel policies regarding careers govern the career advancement of employees (Rosenbaum, 1984; Sagaria and Johnsrud, 1987b; Spilerman, 1986). It is important to note, however, that personnel policies and decisions are formulated and implemented by individuals within the organization; simply stated, organizational behavior is collective human behavior (Schneider, 1983). Thus, understanding the structural dimensions requires identifying the behavior and practices of individual decision makers who match persons to jobs. The behavior and practices of individual decision makers determine the extent to which policies and procedures operate as resources or vulnerabilities for employees. Thus, social and power relations between decision makers and employees may affect the outcomes for employees (Hodson, 1983; Granovetter, 1986).

Granovetter (1981, 1986) argues that the neglect of the process of matching persons to jobs is a major defect in both sociological and economic theoretical explanations of differences in occupational mobility. He moves beyond traditional theories of signaling and searching (Spence, 1974; Stiglitz, 1975) by positing that these are not sequential activities, but rather that both the employer and employee may (or may not) be searching or signaling. For example, nearly a third of his random sample of 282 male professional, technical, and managerial job changers in the Boston area denied having carried out any active search for their current position (Granovetter, 1974). Moreover, the higher the salary of the position, the less likely the individual actively searched for it. Similarly, Sagaria (1986), in a study of ninety newly appointed academic deans, found that 46 percent reported that they did not seek their positions at all; rather, the "positions came their way" (p.10).

These findings suggest that the process of matching person to job is not a straightforward process of individuals actively seeking vacancies but rather an interactive process between employers and potential employees. In fact, Granovetter (1974) found a high incidence of employers who created positions because they had identified a person who they
considered particularly appropriate for the work. In a study of 1600 job transitions among non-academic personnel at a large research university, 7-12% of the new jobs were jobs tailored to individuals (Miner, 1987). Thus the vacancy may not precede the search. The person-job matching process appears to be an on-going complex interaction between potential employers and employees.

The process is an information problem in that neither the employer or the employee has complete information with which to guide decisions (Granovetter, 1974). Granovetter found that both employers and employees prefer information derived from personal contacts because they consider this information to be less costly in time and energy to acquire and of higher quality than information obtained from impersonal sources. Thus, Granovetter argues that traditional examples of signals, such as educational credentials, are not the main conveyor of information for employers. Employers prefer to rely on personal recommendations of persons they know. Since there are typically large numbers of people qualified for positions in terms of traditional qualifications (such as education or experience), personal recommendations provide a means of screening which is more certain and less costly than that based on paper credentials.

These findings have relevance for examining promotion because they provide insight to the actual means employed by individual decision makers to enhance their selection decisions. Granovetter's findings suggest that when faced with matching a person and a job, the hiring official is likely to rely upon candidates known (or recommended by someone personally known) to him or her rather than relying upon paper credentials. Social relations appear critical to the process. Who the person is and who the person is known by appears to be salient. The extent to which a person is personally known to the hiring officials influences the ability to move, or stated differently, the extent to which individuals are known influences the way in which the policies and procedures operate as resources or vulnerabilities for those individuals.
Miller (1982) expands upon this point by suggesting that different arenas of jobs may act as "job opportunity filters" (p. 157). Building upon dual labor market theory, he posits that those in the lower tiers of the primary market may experience promotion ceilings because the structure of the social network in which they work affects the information they receive. Those in the lower tiers simply are not in a position to hear about the promotional opportunities that those employed in upper tiers of the market hear about. Miller suggests that this situation is likely to be exacerbated for those in the secondary market.

Thus, it is argued here that the individual resources brought by the employee to the organization play only a partial role in explaining promotion outcomes. Research regarding individual attainment in promotion is beginning to confirm the need to include structural dimensions; however, writers use the concept of structural dimensions quite differently. For example, Granovetter (1974, 1981) focuses upon the matching process: how the actual decision is made that matches jobs and people. He argues that neither information on the job or the person is sufficient for understanding outcomes. Rosenbaum (1984), in his study of the career mobility of corporate employees, examines such structural dimensions as the attributes of jobs, the impact of growth and contraction of jobs, and the job location at entry. Spilerman (1986) posits that the specific rules governing promotion and advancement and the structure of work must be included in any analyses which attempts to explain outcomes of employees.

In this study, the conceptualization of structural dimensions builds upon this prior work. The extent to which each structural dimension included in this study serves as a resource or vulnerability to the individual or the organization is developed for each of the succeeding hypotheses. Collectively, however, structural dimensions are hypothesized to add to our understanding of the outcomes of promotion. Thus, the following will be tested:

**Hypothesis 1:** The addition of structural resources to individual resources will increase the ability to explain variance in promotion outcomes.
Individual Resources

Gender, education, experience, age and race are individual resources conceptualized to serve as resources or to act as vulnerabilities in the promotion process. Each will be discussed and the related literature reviewed in order to provide a theoretical rationale for the hypotheses.

Gender as Resource and Vulnerability

Gender is an individual characteristic conceptualized in this study as a resource and a vulnerability. Several studies have found evidence that women are disadvantaged and men advantaged in the promotion process (Halaby, 1979; Fogarty, Allen and Walters, 1981; Stewart and Gudykunst, 1982; Olsen and Becker, 1983; Spaeth, 1988; DiPrete and Soule, 1988). Evidence as to the exact nature of the advantage or disadvantage is mixed. For example, in a study of salary disparity in a major public utility company in California, Halaby (1979) found that while return to individual resources differs by gender with the advantage accrued by men, the primary determinant of the wage gap between women and men is the segregation by rank. He concludes that the major part of the economic disadvantage for women is due not to unequal pay for the same job (although there is evidence supporting that conclusion) but rather to unequal access to higher-paying positions. Although Halaby draws the conclusion that women lose from the way promotions are distributed, he is not examining the process of promotion but rather the disparity in wages as they exist at one point in time (1960). He notes, however, that his findings do parallel those of Malkiel and Malkiel (1973) who found in a study of professional employees in a corporation that sexual inequality operated through differences in rank rather than through wage discrimination.

In their study of the rate of promotion in the federal civil service, Diprete and Soule (1988) reached a similar conclusion: the disparity in the rate of promotion by gender was
primarily a function of job grade or level. Their findings indicated that women enjoyed the same rate of advancement once they attained a high job grade (GS 11 or higher); they were disadvantaged, however, in their advancement through the middle grades (GS 5-10) and were significantly less likely to be promoted from the lower (GS 1-4) to the upper grades than were men. They concluded that sex-neutral promotion policies will not correct gender inequality as long as women and men are hired into different levels of an organization.

Similarly, Spaeth (1988) found that women were not at all well represented in the settings where promotion chances were best. In an unpublished study of the influence of type of organization upon promotion chances at all levels of organizations, he found that although women occupy 36% of the managerial positions in non-profit organizations, they were "more likely to be nurses than physicians, principals than superintendents, and ancillary staff rather than professors (p.18)." He concluded that occupational and educational segregation severely limited women's access to high-level positions in these settings. Spaeth's global interest in promotion limits the relevance of this study to the current study: he examines promotion across a wide variety of occupations that include professional positions such as physicians and professors for whom promotion operates differently than it does for most administrative staff. Nonetheless, the disadvantage experienced by women relative to men in his sample lends support to the argument that gender acts as a resource to men and a vulnerability for women in promotion.

In their examination of promotion, Olsen and Becker (1983) conclude that the return to promotions in earnings is comparable for women and men but that women receive fewer promotions because they are held to higher standards than are men. Conflicting evidence is provided by Stewart and Gudykunst (1982) who found that females received more promotions but occupied significantly lower positions in the organizational hierarchy. In this case, it may be that women received an advantage to their gender in number of promotions, but remain disadvantaged regarding the level attained.
This is consistent with interpretations offered by Sagaria (1988) regarding the internal advancement of women relative to men in higher education organizations. She examined the work histories of 191 women and 1,268 men in administrative positions in colleges and universities between 1969 and 1980. Beginning in 1971-1972, women’s rate of position change exceeded that of men in each time period. There was, however, a marked change in women’s mobility over the ten year period. In 1969-70, movement between institutions was the predominant mode of mobility for women. In 1971-72 and for every year thereafter, movement within institutions became the predominant mode of mobility for women. Sagaria suggests that after the enactment of affirmative action legislation (1969-1972), women may have been promoted more frequently as the most visible and least disruptive approach for a college and university to satisfy affirmative action expectations. Due to the external pressure of affirmative action legislation, promoting women served the interests of the organization; thus, gender may have acted as a resource for women in their rate of position change. Sagaria’s study does not attend to outcomes or levels of position change however.

Organizational studies indicate that managerial promotion decisions are often based on who is perceived to be trustworthy which often is a matter of who is known or who is perceived to be like one’s self (Kanter, 1977). In such instances, when the decision makers are male, gender may be an advantage to men and a disadvantage to women. In addition, the higher the level of the position in the organization, the more difficult it is to specify the skills and abilities necessary for success. For those striving to fill a position of considerable responsibility in an organization, the more likely it is that trust and discretion are important. Furthermore, the use of contact networks and social status becomes more pronounced in those work settings in which performance is most difficult to assess (Pfeffer, 1977). In this regard, women are again often at a disadvantage. For example, in a survey of 168 women with executive, administrative, and managerial responsibilities in Florida universities, 87% of the respondents believed that they were excluded from informal networks (Stokes, 1984).
Evidence of trust and discretion are not easily found in paper credentials; rather decision makers turn to persons known to them or perceived to be like themselves to fill important positions. Being perceived appropriate on personal factors and being known to the decision maker or known to someone the decision maker trusts often become the criteria for selection. Common origins and experiences tend to be used as indicators of personal similarity, and therefore, trustworthiness. Thus, there is a tendency for decision makers to chose persons like themselves (termed homosocial reproduction) when they seek to fill positions which are not easily characterized by specific skills and abilities (Kanter, 1977). An ascribed characteristic such as gender is often the obvious characteristic to be reproduced.

This practice is reflected in higher education in which the criteria for administrative success are often amorphous. For example, after an initial screening for educational background and professional experiences, hiring decisions for many administrative positions often depend upon leadership skills or ability to work with others (Sagaria, 1985). The difficulty in evaluating such qualities results in subjective assessments of ease of communication or personal comfort with the individual—assessments which may be more a result of similarity to self or commonality of background than of requisite skills for the position in question.

The practice of reproducing one's self has consequences for women in higher education because men hold the vast majority of the administrative positions. Thus, to the extent that personalized decision making (Granovetter, 1974) or homosocial reproduction (Kanter, 1977) are operating in a particular setting, gender as an individual resource will serve women and men differently for promotion. That is, individual decision makers match persons to jobs but their decisions are a function of social relations as well as the policy and practice regarding promotion. Employee outcomes are the result of individual and structural resources mediated by social and power relations on the job. Therefore, the following will be tested:
Hypothesis 2: Gender will serve men as a resource for promotion and will act as a vulnerability for women.

Education and Experience as Resource and Vulnerability

Human capital theorists established that education and experience are relevant to wage attainment (Becker, 1964; Polachek, 1981). Education and experience are conceptualized by human capital theorists as investments in personal capital that result in a return in the form of wages. Differing amounts of investment are hypothesized to affect the productivity of individuals on the job, and consequently, account for differences in outcomes. Thus, education and experience serve as resources to the organization as a means to increase productivity and to the individual as investments which can be translated into increased wages.

Differences in human capital make minor differences in corporate intrainstitutional mobility as compared to the structural dimensions of the selection process (Rosenbaum, 1984). Nonetheless, returns to education differed significantly by gender. Rosenbaum examined the career mobility of 1,612 corporate employees over a thirteen year period, and found that most college-educated women have initial attainments little better than those of males without college degrees, and non-college-educated women have even lower initial attainments. When career trajectories are examined, the disparities between women and men increase. College-educated females suffer an increasingly strong disadvantage over time. Thus, neither education nor accrued experience benefit women to the extent they benefit men. These findings are consistent with those of Halaby (1979) who found that male rates of return to salary for schooling and seniority exceeded those of women.

Other evidence suggests that both education and years of service are better predictors of success in promotion for men than for women. In their study of the promotion of salaried
employees in a national financial institution, Stewart and Gudykunst (1982) found that length of tenure was the best predictor of promotion for both women and men, but that length of tenure accounted for almost twice the variance in number of promotions for males (42.3%) than females (23.1%). Years of education had a positive impact upon the number of promotions for males and a negative impact for women. Similarly, length of tenure had a positive impact on the hierarchical level attained by males and a negative impact for women. Years of education had a similar impact on hierarchical level attained by women and men.

Measurement of experience varies in studies regarding attainment in the workplace. A distinction can be made between years of service in one's current position or organization and years of experience in the work world. Spaeth (1988) argues that if prior experience is valuable to an employer, it should influence the level of entry to the organization; given access, however, prior experience should be irrelevant to promotions. In his study of the determinants of promotion in the Illinois work force, he found that experience prior to the current employer had a modest and negative effect upon the number of promotions received. He argues that experience accrued with an earlier employer subtracts from the time available to accrue experience with one's current employer, and thus, has a negative impact upon promotion. He concludes that employers value experience in their own organizations and not experience gained elsewhere. Moreover, in Spaeth's study, the addition of the variable measuring experience with current employer, together with employer type, makes the effect of gender negligible.

Although these findings provide evidence that the individual resources of education and experience have a positive influence upon promotion, the results vary by gender. Therefore, in this study the following will be tested:

**Hypothesis 3:** Education will serve as a resource for promotion although its influence will vary by gender.
Hypothesis 4: Experience will serve as a resource for promotion although its influence will vary by gender.

Age as Resource or Vulnerability

Much of the work relating age and administrative careers has focused on the influence of age upon mobility (Viega, 1971, 1973, 1983; Rosenbaum, 1979, 1984; Sagaria and Moore, 1983). For example, in a study of mid-level managers in corporate settings, Viega (1971, 1973) found that the rate of career mobility decreased throughout the managerial career. He described three stages of decreasing mobility: a corporate learning stage from ages 29-37, in which the rate of mobility is significantly decreased (movement is slowed to season and establish new managers); a corporate maturity stage from ages 38-55, in which mobility decreases at a decreasing rate reflecting more mobility for this group; and a preretirement stage from ages 56-64, in which mobility again decreases at an increasing rate. Also, in a sample of 1,216 managers employed in three major U.S. corporations, Viega (1983) found that the average time spent in a position increases with age, and the propensity to move decreases with age.

Similarly, Rosenbaum (1984) found a preference for promoting younger employees. His data included the promotions occurring in one corporation between three job levels: nonmanagement, foreman, and lower management. He found that those employees with a bachelor's degree experienced high mobility until ages 35-39, and then experienced a sharp decline in promotions and early termination of promotion chances between ages 40 and 45. Also Rosenbaum found that the effects of age could not be separated from tenure (years of service) for the college-educated group. The high correlation between age and tenure suggests that it may not be possible to separate the returns employees receive from age from the returns they receive from experience.
Age of the individual has been found to be an important predictor of the mobility of administrators within institutions (Sagaria, 1984). In a study of 143 academic administrators, Sagaria found that age was the strongest predictor of job change within the institution although the relationship between age and job change in this study was negative. Similarly, in a study of 234 academic administrators, Sagaria and Moore (1983) found an inverse relationship between age and job change. Intra-institutional job change was greatest for those in the 27-35 year old cohort, followed by the 41-45 year old cohort, and after that, job change declined at an increasing rate, and was lowest for the 56-60 year old category. They found a slight increase in internal mobility for the 61-69 year old category which they speculate may represent a pre-retirement shift to a position of less authority and responsibility for those administrators whose productivity may have declined. Although the movement of this age group may be substantively downward, evidence from demotion studies suggests that demotion is typically obscured and may not represent a cut in salary (Gouldner, 1965).

In a different approach to examining the relationship between age and mobility, Kaufman and Spilerman (1982) examined the distribution of ages within occupations and the relationship between the age category of the occupation and movement out of the occupation. They found significant differences in the ages represented within occupations using 1970 Census data for males employed full-time. Rates of staying in an occupation varied by the age category of the occupation. Occupations in the young-age category had low rates of staying, and occupations in the old-age category had high rates of staying. Thus, they concluded that young persons were more mobile occupationally than mature workers.

Although age has been found to be inversely related to mobility when measured as position change or occupational change, the relationship between age and the outcome of mobility is not clear in the literature. Kaufman and Spilerman (1982) found that managers, administrators and supervisory personnel constituted a group of occupations with concentrated age-profiles, that is, in the interval 50-65. If older employees tend to be at higher levels in a
hierarchical organization, they may gain more in returns to their mobility than those at lower levels—even though, as the evidence cited here suggests, they will experience less mobility.

Stewart and Gudykunst (1982) found age to be significant in predicting both hierarchical level and number of promotions for women and men. Age contributed positively to hierarchical level for women and men, although the influence of age is twice as large for males as it is for females. Age had a significant and strong impact upon the number of promotions; it did not, however, have a differential impact for women and men.

Because this study focuses upon those individuals who are promoted, it is expected that the distribution of promotions by age is positively skewed (the mean will exceed the mode). The literature provides little guidance regarding the interaction between age and gender in promotion outcomes, thus the following will be tested:

**Hypothesis 5:** Age will serve as a resource for the outcome of promotion for women and men.

**Race as Resource and Vulnerability**

Minorities are seriously underrepresented in the administration of colleges and universities (Bond, 1983; Moore, 1983; Frances and Mensel, 1981). Representation increased from two percent in 1977 to 7.8 percent in 1981 (Van Alstyne and Withers, 1977; Frances and Mensel, 1981). Moreover, findings have shown that minorities are clustered in fewer position titles: the two positions in which minorities are most often found are affirmative action officer and student financial aid directors (Frances and Mensel, 1981). In a survey of 457 Black administrators, most were employed on predominantly Black campuses, and of those Black administrators on white campuses, they were more often in staff positions or assistant-to positions, few were in tenure track positions, and more had multiple assignments than their counterparts at Black institutions (Hoskins, 1978).
In a national data set representing 2,896 college and university administrators, Bond (1983) found 156 (5.4%) of the administrators were Black. Positions included in the data set were president, provost, dean, chief administrative officer, and chief student affairs officer. In a secondary analyses of the data, Bond compared the professional, career, and personal backgrounds of the 156 Black administrators with non-Black respondents. Most of the Black administrators (76.9%) held positions in predominantly Black institutions. Only 7.1% of the Black administrators were in doctorate-granting institutions compared to 22.2% of the whites. After controlling for institutional type, Bond found no significant differences between Black and non-Black administrators in gender, age, number or type of academic degrees held, or number of years in positions. She concluded that the professional and academic backgrounds of Black administrators closely parallel that of white administrators, and that the differences between the two groups were too small to substantiate claims that Blacks were underqualified for administrative positions. She argued that the problem black administrators face is not the lack of credentials but the distribution of opportunities.

Status attainment perspectives provided much of the early work on racial differences in occupational achievement. The major determinant of disparate outcomes for minority group members has been attributed to differences in educational attainment (Duncan, 1969; Blum, 1972; Featherman and Hauser, 1978). Studies have confirmed that Blacks receive lower returns to their education and training than whites (Rosenfeld, 1980; Corcoran and Duncan, 1979). Snyder and Hudis (1976), in an analysis of Census data on 413 occupations, found considerable support for their hypothesis that Black male workers are systematically excluded from high paying occupations.

More recently, studies using structural perspectives have examined the wage attainment of Blacks relative to whites. Parcel and Mueller (1983) found that Blacks not only have less access to resources such as education and experience, but that they are less able to translate their resources into earnings. Thus, differences in education and experience are not
enough to explain the differences in outcomes. For example, Parcel and Mueller found a large racial difference in occupational status suggesting differential access to occupations by race. Similarly, Kaufman (1983) found that the distribution of Blacks and whites in the labor market explained more than one-third of the earnings gap. Blacks are distributed differently within labor markets and within occupations. Both of these studies indicate that structural factors contribute to earning disparities between Blacks and whites.

Hirshman and Wong (1984) compared the socioeconomic gains of Asian Americans, Blacks and Hispanics with those of white non-Hispanics. Using Census data (1960 and 1970) and Survey of Income and Education (1976), they examined the earnings of men in the labor force. They found that although Blacks made real gains between 1960 and 1976, the gaps remained wide. Black men averaged 15 points lower than white men in occupational position and earned $4,000 less than the majority mean. Hispanic men fared only slightly better. In contrast, Asian Americans had occupational position and earnings equal to or only slightly below the majority averages. However, the apparent equality between white and Asians was attributed to the "educational overachievement" by Asians (p.602). Hirshman and Wong contend that if Asians experienced the same process of stratification as whites, their educational credentials would shift their occupation and earning levels substantially above those of the majority population.

The effect of race upon promotion has received minimal treatment. The rationale offered for the increased mobility of women after the enactment of affirmative action legislation (Sagaria, 1988) could be applied to minorities. If promoting minority group members served the interests of the organization, minority group membership could serve individuals as a resource. However, given the findings regarding the disparities between Black-Asians-white returns to their education and experience as well as the limited opportunity minorities have experienced in higher education administration, the following will be tested:
Hypothesis 6  Minority group membership will act as a vulnerability and have a negative impact upon the outcomes of promotion of women and men.

Structural Resources

The structural resources conceptualized to influence promotion outcomes in this study are attributes of positions or of the administrative context of the position. Sponsorship, new positions and budgetary allocation are a function of the position to which individuals were promoted. Prior work structure is a function of the position from which individuals were promoted. Each of the structural resources will be discussed and the related literature reviewed in order to provide a rationale for the hypotheses.

Sponsorship as Resource and Vulnerability

A structural dimension relevant to the person-job matching process and conceptualized as a resource or a vulnerability for promotion is the formal practice of sponsorship. Turner (1960) explicated the classic conceptualization of sponsorship using patterns of upward mobility characteristic of British and American school systems. He differentiated between what he labeled as sponsored and contest mobility. Sponsored mobility is described as a system in which individuals are chosen for positions on the basis of individual merit as perceived prior to competition for any particular position or in lieu of competition. Contest mobility is described as a system in which individuals compete in an open contest for a given position which is awarded on the basis of individual merit as perceived at the time of the competition. Thus, in sponsored mobility the selection is made without regard to other possible applicants but rather in terms of the potential of the individual as perceived by a sponsor, while in open contest mobility individuals are selected for their qualifications relative to others who choose to compete for the same position.
Sponsorship occurs when an individual in a position of influence recommends or promotes an individual as a good candidate for a particular position. As an individual career strategy, sponsorship has been shown to be important to career success and mobility in a variety of occupations and organizational settings (Crane, 1965; Faulkner, 1971; Jennings, 1971; Hennig and Jardim, 1977; Collins and Scott, 1978; Roche, 1979; Cameron and Blackburn, 1981; Lembright and Reimer, 1982; McNeer, 1983), and in fact, has been identified as a prevalent mode for administrators' mobility in higher education organizations (Moore, 1983). The advantages of sponsorship for the one sponsored include career coaching, access to positions or decision makers which might not otherwise be possible, exposure and visibility in the organization, and protection in difficult situations (Moore and Salimbene, 1981; Moore, 1982; Kram, 1985).

Sponsorship of an individual for a position within an organization is a potential resource for both the sponsor and the organization (Zey, 1984; Kram, 1985). The sponsor may benefit through the internal satisfaction of enabling the career advancement of a young or inexperienced adult or through external rewards for aiding in the identification of talent to meet staffing needs of the organization. The organization may encourage senior level personnel to sponsor junior level employees in order to address specific problems (Kram, 1985). For example, retention of new employees can be enhanced through efforts to develop their careers and sponsor them for advancement. Additionally, evidence indicates that sponsorship may reduce turnover within the organization because those sponsored tend to feel positively reinforced for their performance and loyal to their sponsor (Zey, 1984).

A specific benefit for the organization may well be the efficiency of filling a position without an extensive search process (Rosenbaum, 1984). The more efficient means of selecting employees for advancement may be an early identification, selection, and grooming of those candidates most likely to meet the needs of the organization. In terms of efficiency, this
may mean selecting candidates without a search for a pool of candidates, or more succinctly, sponsored mobility.

Sponsorship may also be viewed as an effective means of moving persons internally. Assuming that sponsorship is based on knowledge of and trust of another, sponsoring is a means of providing valued information in the person-job matching process (Granovetter, 1981). Sponsors provide personalized information which is more highly valued for decision making than what other candidates offer in paper credentials. For example, in a study of 143 academic staff administrators, Sagaria (1984) found that those with "mentors" changed jobs more often than those without "mentors." The definition of mentor in this study is broader than sponsorship but analogous: "an individual who facilitates career advancement by 'teaching the ropes,' coaching, serving as a role model, and making important introductions" p. 143.

Sponsorship may serve as the most direct means of identifying persons one can trust. Sponsorship may result from perceived social similarity and homogeneity (Kanter, 1977), thus providing a direct opportunity for one to reproduce one's self in another position. Sponsorship may be perceived by decision makers as efficiently and effectively serving the organization by matching persons and jobs. The consequence may be, however, that women are less likely to benefit from the practice of sponsorship because they are least likely to be identified as socially and personally similar to the potential sponsors. Therefore, the following will be tested:

Hypothesis 7: Sponsorship will serve as a resource for promotion outcomes although its impact will vary by gender.

New positions as Resource and Vulnerability

New positions are resources to employer and employee: they represent increased opportunity for advancement for employees and increased avenues for productivity for the employer. Traditional images of promotion suggest that persons move from one vacant position
to another (White, 1970). Although new jobs are periodically added to the array of organizational positions, they are an alternative to the standard approach for increasing one's responsibility by taking on a vacated position. Thus, to the extent that new positions are created within an organization, they represent an increase in the extent of opportunity for promotion.

One form of position creation within higher education organizations has been examined as an individual strategy for career advancement. Miner and Estler (1985) identified evolved responsibility or accrual mobility as an alternative process of position creation in which an employee first accrues responsibility, skills, or knowledge in a current position which exceeds normal growth in that position. The accrued changes are then institutionalized by formally recognizing the additional growth and changing the title, salary or job content--essentially creating a new position for the employee who has reshaped the position. As an individual career strategy, accrual mobility may depend upon the initiation of the employee; it is conceptualized, however, as a dynamic process involving both the employer and employee interacting over a period of time. Thus, creating new positions through an accrual process requires organizational decision making that, in turn, suggests the need to examine the practice not only as an individual career strategy, but also as a function of the policies and practices which support position creation.

In an expansion of the concept of jobs tailored to individuals, Miner (1987) combines evolved jobs with "opportunistic hires" to define "idiosyncratic jobs." Thus, it is recognized that both internal and external candidates may benefit from newly created positions. Internal persons may "evolve jobs" while external persons may be "opportunistically hired." Idiosyncratic jobs are those jobs for which the existence of the job-holder prompted the creation of the position or those jobs that were designed to match the perceived interest, abilities or priorities of a person around whom it was created. In a study of 1600 job transitions at a large research university, idiosyncratic jobs accounted for 7-12% of the new jobs.
Certain new positions may be created by the organization to acknowledge or reward persons. Other new positions may be created to meet specified organizational needs without a particular person in mind to fill the position. Despite the motivation prompting the creation of new positions, they provide a means for an organization to facilitate career development and advancement for employees. Thus, position creation can be perceived as a potential resource both to the organization and to the individuals within the organization.

Research, however, indicates that the use of personal contacts is even more important in changing to new positions within an organization than previously existing positions (Granovetter, 1974). The implication may be that organizations hold new positions in abeyance until a person is identified as appropriate for the task or they may create jobs around people (idiosyncratic jobs). Thus, the practice of filling new positions may be closely tied to the practice of sponsorship: selection highly dependent upon personalized information and the perceived social and personal similarity of the candidate to the decision maker. Concomitantly, the practice of filling new positions may have similar implications for women: just as they may be less likely to be sponsored (Kanter, 1977), they may be less likely to be selected for new positions and for the same reasons. Therefore, the following will be tested:

**Hypothesis 8:** Position creation will serve as a resource for the outcomes of promotion although its impact will vary by gender.

**Budgetary Allocations as Resource and Vulnerability**

Organizations respond to changes in their environment; such responses may create opportunities or vulnerabilities for the organization or the employee. Thompson (1967) depicts the organization as active and adaptive in its response to the external environment. Pfeffer and Salancik (1978) posit a resource dependency perspective in which organizations actively develop new tactics and strategies to ensure their ability to acquire and maintain essential
resources. Internal needs and external pressures result in changes in the demand for certain
skills and technical abilities necessary for the organization to adapt. For example, in a study of
retail clerks, Talbert and Bose (1977) found that as organizations respond to environmental
uncertainty and complexity, they make provisions to award disproportionate resources to those
units responding to the environmental conditions. Moreover, the characteristics of the unit in
which persons were employed were important predictors of the wages earned. Those persons
employed in units receiving a greater share of the resources benefited accordingly.

In a recent study of the resource allocations made to units within colleges and
universities, power to bring in external resources and centrality to the mission of the institution
emerged as determining factors in the allocation of scarce funds (Hackman, 1985). Accordingly,
within administrative units, increased resources were assigned most typically to development,
admissions, and administrative computing; decreased resources were assigned most typically to
student affairs, counseling, and the physical plant.

Shifts in the resources allocated to an administrative unit cannot be translated directly
into shifts in pay levels for positions within the units. The worth of specific occupational groups
to an organization is ascertained at a point in time, and the wages are assigned. Evidence
indicates that persons within organizations are rarely demoted, or what is in actuality a demotion
is obscured by the organization and the individual (Dalton, 1959; More, 1962; Gouldner, 1965;
Kanter, 1977). This tendency may, in turn, assure that the positions persons hold are rarely
down-graded despite shifts in need or value of the position to the organization. Nonetheless,
shifts in the pay levels assigned to occupational groupings may occur as positions are vacated
prior to their posting or as new positions are created. Administrative units are labor intensive,
and thus the opportunity for promotion and the outcomes of promotion within a unit are likely to
be a function of the institutional resource allocation of the administrative unit.

Environmental pressures such as demographic trends and an inflationary economy
presumably result in increased pressures to provide more resources to certain units (those
perceived as most likely to aid in meeting the environmental pressures) and to provide less resources to other units (those perceived as least likely to aid in meeting the environmental pressures). Thus, resource allocations as conceptualized here may serve both the interests of the organization in terms of dealing with environmental pressures, and the interests of the individual in terms of opportunities for increased rewards. In other words, the location of the administrative position vacancy may serve as a resource or a vulnerability to the individual. Positions in units of high power and centrality may carry more rewards because they receive a greater share of the institution's allocated resources. The opposite may be true of positions in units with little power or those peripheral to the primary mission of the institution. The following will be tested:

**Hypothesis 9:** Outcomes of promotion will vary positively with the institutional resource allocation of the administrative unit of the position vacancy.

**Prior position as Resource and Vulnerability**

The position held by an individual prior to promotion may serve as a resource or a vulnerability to the individual. Kanter's portrayal (1977) of the "moving" and the "stuck" distinguished categories of persons mobilized or immobilized by virtue of their job category. Certain jobs, such as clerical positions and other non-managerial positions, may be structural dead ends due to short ladders or low ceilings (Benet, 1972; Vinnicombe, 1980; Kanter, 1977). They may also result in low mobility because the expectation for mobility is low or because they act as filters screening out job opportunity information about higher level positions (Miller, 1982). Other positions may be conducive to mobility because they exist within a ladder or a cluster of related positions (Baron, Davis-Blake and Bielby, 1986; DiPrete and Soule, 1988) or simply because other persons have moved from the position and a path has evolved. Still other positions provide opportunity because they provide incumbents with exposure, visibility,
information and connections (Kanter, 1977; Miller, 1982). Gaertner (1980) describes "assessment positions" which provide the persons in them with opportunities to perform that can be readily assessed by those with the power to promote.

At the same time, positions with different opportunities for promotion enable the organization to meet diverse staffing needs. Secretaries are rewarded for "long-term loyalty and single-job stability" (Kanter, 1977, p. 136) rather than for aspiring to career growth by job changes. Low turnover and stability may serve the needs of the organization in one job category while another category may serve as a training ground for aspiring managers.

Difference in promotion opportunity is also a key characteristic used to differentiate primary and secondary jobs in dual labor market conceptualizations (Doeringer and Piore, 1971). Primary jobs are described as "good" jobs with high salaries, stability, good working conditions, and internal job ladders. In contrast, jobs in the secondary market are described as "bad" jobs with low salaries, lack of stability, poor working conditions, and little opportunity for advancement via internal job ladders. A further differentiation of primary jobs into upper and lower tiers (Piore, 1975) has relevance for a professional organization such as a large public university. Piore described upper tier positions as those held by professionals and lower tier positions as those held by skilled craftspersons. Lower tier jobs are relatively "good" but the good wages and work conditions with stability and due process tends to be dependent upon unionization. Similarly, universities have different categories of employees differentiated for example, as unclassified and classified, with each group enjoying different pay structures and benefits as well as qualitatively different positions. That upper tier, lower tier and secondary jobs may all occur in the same organization has been demonstrated in the service industry (Parcel and Sickmeier, 1988).

An individual's placement within the organization has been shown to influence promotion outcomes (Rosenbaum, 1984). Rosenbaum found that white males retained their advantage over the thirteen year period of his study. Job status attainments in employee's first
years in the firm were moderately good predictors of their attainment thirteen years later. Another study that provides support for the influence of location within a work structure is an effort to assess equal opportunity for women in professional and managerial careers in the British civil service, British Broadcasting, and an architectural firm. Fogarty, Allen and Walters (1981) did follow-up case studies ten to twelve years after the sites had been studied in the 1960's. In each case study, there was a major increase in the intake of women as recruits to career lines that "could in principle lead" to top jobs (p.7). For example in the British civil service, they found that although the number of women had increased in entry grades, women were not as likely as men to work their way through the middle grades to levels from which promotions to the top were made. These findings parallel those of Diprete and Soule (1988) that indicated that the rate of promotion of women relative to men in the federal civil service was a function of their location. Gender differences in promotion by grade was largely explained by differences in the opportunities for advancement by specific job ladders. Nonetheless, significant gender differences in promotion from the lower to the upper tier remained after personal attributes and organizational location were controlled.

Women tend to be clustered in entry-level positions in higher education organizations (Frances and Menzel, 1981; Sagaria and Johnsrud, 1987b); thus, their placement may influence their ability to achieve outcomes to promotion. At the same time, men are predominant at high levels. Prior location may serve men as a resource while it acts as a vulnerability for women.

Both Stewart and Gudykunst (1982) and Spaeth (1988) acknowledge that their inability to control for different starting points in the organization(s) is a limitation of their studies. Starting points, however, may be conceptualized both qualitatively in terms of the location of the position and quantitatively in terms of the returns to the position. The foregoing discussion suggests differences in opportunity related to an individual's placement in the structure of work in the organization. As Spilerman (1986) illustrates, however, different structures of work also
correspond to different pay scales. Promotion outcomes may be most closely tied to current returns especially in those work structures in which jobs are related to one another or promotion ladders do exist. Thus, two hypotheses will be tested regarding prior position:

**Hypothesis 10:** Prior work structure will serve as a vulnerability for promotion outcomes when individuals are promoted from non-administrative and professional positions.

**Hypothesis 11:** Promotion outcomes will vary positively with prior pay level.

**Summary**

This chapter has detailed each of the hypotheses to be tested in this study and grounded each in the literature relevant to administrative promotion. Each of the key variables of interest have been discussed as potential resources and/or vulnerabilities to the organization as well as the employees of the organization. The hypotheses will be tested to ascertain whether these individual and structural variables served the promoted staff members in this study as resources and vulnerabilities in the promotion process and whether they served women and men differently. Chapter IV outlines the design and analyses used to test the hypotheses.
CHAPTER IV

METHOD

The data and methods used for the study are detailed in this chapter. The data set and population studied are described. Operational definitions and measurements of each of the variables are provided. A rationale is presented for the analyses and statistical tests conducted to test the hypotheses.

Data Description

The case study method was used to investigate the promotion of members of the administrative and professional staff in a large, public research university over a three year period (1982-1985). This was a secondary analysis of a data set generated from the personnel records of The Ohio State University Office of Personnel Services for 1,108 posted position vacancies (Sagaria and Johnsrud, 1987b).

This University is well suited for examining promotion in a large organization. During the 1984-85 academic year, the University employed 1,944 administrative staff employees (Sagaria and Johnsrud, 1987b). This number increased from 995 positions in 1978-79 indicating that the University experienced the growth in administrative positions typical of other large public research universities (Frances and Mensel, 1981; Moore, 1983; Brown, 1981). Furthermore, its personnel policies regarding hiring, internal position change, and benefits are similar to many of the 100 research universities that employ approximately one-third of the higher education workforce (Plisko and Stern, 1985).
Data Set

The data were collected during the winter and spring of 1986 for the purpose of examining the impact of internal promotion on women and minorities within the administrative and professional staff. Data concerning position vacancies were gathered from the following official University records: 1) University personnel postings—the weekly listings of position vacancies prepared by Personnel Services; 2) title decks—listings of the Personnel Services categorization of each position title for each year under consideration; 3) paper files for each position vacancy containing copies of the request for promotion consideration from internal applicants and the record of activity and outcome of the decision compiled by the employment counselor assigned to the vacancy; 4) the Personnel data bank (PDB)—a computerized historical record of personal demographic information for each employee. Data from paper sources were collected, codified and merged with data from the PDB to create the data set to be used for the current analysis.

This data set was produced from archival materials preserved for non-research purposes. Since the validity of conclusions depend on the adequacy of the records, it is important to consider the main sources of bias in archival materials: selective deposit and selective survival (Webb, Campbell, Schwartz, Sechrest, and Grove, 1981). In general, the accuracy of personnel records is enhanced because they document personnel changes that determine salary and payroll deductions; thus, the institution and the individual serve as mutual checks as to their accuracy. In the case of the PDB, the problem of survival of data arises. The policy of purging the system of the demographic information of those who have left the University resulted in missing demographic data (discussed under Missing Data). In the case of the paper files regarding position vacancies, the problem of selective deposit arises because
there are files which were closed without complete information as to the disposition of the vacancy (also discussed under Missing Data).

It is argued here that the use of archival materials, such as institutional records, are the most appropriate method to examine promotion practice because they enable the researcher to obtain more objective measures than would be generated from interviews or surveys (Webb et al., 1981). The assumption in this study regarding the use of archival data is that personnel records are not only an accurate representation, but also the best available representation, of the promotion practices within the University.

Target Population

The target population for the original data set included the vacancies occurring in administrative and professional staff positions (A&P). Administrative and professional staff are defined in this study as those individuals whose assignments carry responsibility for developing and implementing policy, coordinating resources and activities, supervising administrative units that support academic functions, and/or serving as liaisons to a variety of constituents such as faculty, students, business and industry, and government. Titles include directors, managers, coordinators, supervisors, advisors, assistants, counselors, and specialists. (Appendix A provides a list of representative titles by pay level.)

Certain administrative and professional positions were excluded from the study. For example, positions whose functions were concerned principally with the creation and dissemination of knowledge, such as research assistant and post-doctoral researcher, were excluded. The University libraries were excluded because the majority of the professional positions carry faculty rank and status and are not open to competition to those without professional librarian credentials. Similarly, all other positions were excluded for which tenure as a faculty member is a prerequisite, such as Dean or Associate Dean. Also excluded were positions within agricultural research units and health sciences units because the positions in
these units differ significantly by functions, activities, and position titles from those found in administrative units traditionally associated with universities in the United States. Also, these administrative units are found in a minority of universities (Knowles, 1970). (Appendix B lists the administrative units included in this study.) Thus, the target population includes the administrative and professional positions that provide support to the academic functions and do not require faculty rank or tenure.

All vacancies for regular, full-time positions within the target population from each fiscal year (July 1 through June 30) were included and analyzed. The decision was made not to draw a sample of the position vacancies because of the shifts in the aggregate number of administrative and professional positions over the three-year period. The data set represents a population of the 1,108 position vacancies which were posted between 1982 and 1985, and thus, includes the subpopulation of position vacancies which were filled internally.

**Missing Data**

Of the 1,108 position vacancies, complete information was available on 924 (83.4%) position vacancies. The 184 incomplete files represent cases in which Personnel Services was not notified as to whether or not the position was filled, and the file was closed as incomplete. Because of the institutional mandate to act affirmatively, however, if there were a bias in reporting, it was thought that it likely entailed an overreporting of the promotion of women and minorities. Thus, since it was hypothesized that women and minorities would be less able than men to use the resources available for promotion, the possible overreporting of the promotion of women and minorities provided a conservative test of the hypotheses. Analysis of data by administrative unit was conducted; there was no identifiable systematic bias in the missing data by reporting unit.
Of the 924 position vacancies for which the disposition of the vacancy was known, 486 (52.6%) positions were filled by promoting internal candidates. Complete demographic data were available from the Personnel Data Bank (PDB) for 454 (93.9%) persons. Demographic data are missing for 32 (6.6%) persons for one of two reasons: 1) They were not on the PDB at the time of the posting of the A&P position to which they were promoted, although they were eligible to be considered as internal candidates. This is the case for those who were in positions designated as "wages" (not listed on the PDB), or in special situations, for example, alumni association employees are not University employees, and therefore, are not on the PDB, but they are considered internal applicants when they apply for University positions. For those not on the PDB at the time of posting, a position title and pay range of the position the person held prior to taking an A&P position does not exist. 2) The second reason for missing demographic data is the purging of records conducted by the Personnel Office. Demographic data were not available for persons who left the University before December, 1982. In May of 1984, the PDB was purged of all persons who had left the University system as of December, 1982. Therefore, the demographics for internal candidates are available for those who have remained employed at the University through December, 1982.

**Population Studied**

The population of this study consists of the 454 position vacancies filled by internal candidates between 1982-85 for whom there is demographic data available. The unit of analysis in the original data set is the position vacancy. In order to examine promotion, the population of vacancies filled by internal candidates was selected, and positions filled by external candidates were removed from the analysis. Thus, the unit of analysis of this population is the individual. By limiting the data set to promoted individuals, analyses could be conducted to examine the

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1 Promotion is defined here as a vertical or lateral move in pay range. In nine cases, the internal candidate who filled the vacancy moved down in pay range. These nine cases were not considered promotions, and thus, were eliminated from the data set.
determinants of promotion for these individuals. Personnel policies at the University provide for the consideration of internal candidates for vacant positions prior to the consideration of external candidates (The Ohio State University Operations Manual, 1980, Section 4.2); thus, promotions are typically determined prior to external competition. As a result, excluding those positions filled by external candidates did not eliminate variables relevant to promotion determination.

Measurement

The operational definition and the measurement of each of the variables in the study follows. Problems with specific measures are discussed; however, a general statement regarding risks to reliability and validity can be made for these measures in keeping with the foregoing discussion of the use of archival materials, specifically, institutional personnel records. Whenever data existed within the official sources in the form needed for analysis, it was retained to preserve its accuracy. For example, individual identifiers, pay ranges, and demographic variables, such as gender and education, were coded exactly as they were in the Personnel system eliminating errors of re-coding. Variables, such as sponsorship or new positions, were coded directly from the official sources, and were verified within the data collection process because every vacancy was handled twice: once when the vacancy data were collected, and again when the individual candidate data were collected.

Changes in the recording or categorizing of data over time are also potentially problematic in the use of archival data (Stewart, 1984). Changes in titles and pay ranges of positions during the three year period were a problem within the original data set. Verification of pay range was conducted by matching each title code and pay range in the data set with title code and pay range as listed on the official title listings. Thus, existing official records and careful retrieval methods have been utilized to assure the reliability and validity of the data.
**Dependent variable**

**Outcome pay range.** The dependent variable is the pay range of the position to which the individual moved, that is, the outcome of promotion is operationalized to be the pay range attached to the new position. The University Personnel Office derived the pay range of each position from a formal factoring system which took into account six criteria of the position: knowledge, skills and abilities required, contacts (interpersonal relationships), supervision received and given, mental demand, and scope of responsibility (Ohio State University, Classification and Compensation Program for Administrative and Professional Staff, 1977). Each factor was further divided into levels that were defined as degrees of the specific factor (for example, the degree of knowledge required was assessed on a nine point scale). The degree to which each of these criteria was a factor in a position was determined, substantiated, and points were assigned. The factors were weighted as follows:

| Knowledge, skills and abilities required | 21% |
| Interpersonal relationships             | 13% |
| Supervision received                    | 11% |
| Supervision given                       | 13% |
| Mental demand                           | 20% |
| Scope of Responsibility                 | 22% |

The total points determined the pay range of the position within the salary structure. The salary structure established definite differences between levels of positions as well as minimum and maximum salaries to be paid for performance (Appendix C).

The ranges were set to increase by approximately 10% at the mid-points, and the spread to vary from 35% to 56% as the ranges move upward in value. The spread recognized the "increased latitude for learning and growth found in higher level jobs, and provides for movement and incentive within the structure" (Classification and Compensation Program, 1977, p. 8). Although pay ranges overlap in dollar amounts, there are qualitative and equivalent differences between each designated range.
Pay range was used as an interval scale because there are equal intervals between the ranges which represent hypothetically equal distances between positions. The variable pay range for administrative and professional positions extended from 54 to 71².

**Individual resource variables**

**Education.** Educational level of the internal candidate was obtained from the individual's request for promotion consideration form, and thus, the educational level of the individual promoted was attained at the time of application for the position. Education was coded to be consistent with University coding systems: 1—Other or none, 2—Bachelor's degree, 3—Master's degree, 4—Doctoral degree, 5—Professional degree³. Dummy variables were created with other or none as the reference category.

**Experience.** Two variables were available: the length of service in years at the University and the length of time spent in the previous position held at the University. The latter resulted in underestimating total time at the University (because it excluded other positions than the immediately previous). Length of service was a weak measure because it was not routinely kept on the PDB but was generated separately by the Personnel Office and used for determining eligibility for athletic tickets. Length of service was verified by self and supervisor report; it was, nonetheless, used for official university reporting purposes.

The years of service was missing for fifty-nine individuals. Therefore, means were calculated by gender and prior work structure (administrative, skilled or unskilled) and

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²Pay range extended from 54 to 71 with 00 designating certain salaries which were outside of the typical ranges but above pay range 71. The 00 was used for those positions for which there is "no substantive basis for assigning a range or because the range is determined by unique market variables or other relevant factors" (Classification and Compensation Program, 1977, p. 8). The "00" was used primarily for those positions requiring faculty rank or tenure; thus, there were no position vacancies in this subset of the data with a pay range of "00."

³Preliminary analyses determined that there were too few professional degrees (2) to be retained in the analyses. Thus, professional degrees were combined with doctoral degrees for purposes of this study.
substituted for missing data in the analyses. With these limitations in mind, years of service to the University was used to measure experience.

**Age.** Age is coded in years from birthdate. Age was calculated as the difference between the date of birth and the posting date of the position vacancy. Thus, age of the persons promoted is their age at the time the position was posted for applications.

**Race.** Three groups are included in the analyses: 1) White, 2) Asian, and 3) Black. Dummy variables were created for the variable race with White as the reference category. There were no American Indians and one Hispanic identified in the data set.

**Gender.** A dummy variable was created for gender. Male is the reference category.

**Structural resource variables**

**Sponsorship.** Sponsored positions were those position vacancies for which an individual was named as under consideration prior to the posting of the position. Positions with designated candidates were explicitly listed as such when they were posted in the University personnel postings. Although all positions were considered to be open for application to both internal and external applicants, there were few applicants other than the designated candidate, and others who applied were rarely interviewed. In virtually every case of sponsorship, the person appointed was the person for whom the position was designated (Sagara and Johnsrud, 1987b). Sponsorship is a dummy variable. Non-sponsored is the reference category.

**Position type.** Positions were either newly created positions, previously held positions, or reclassified positions. Reclassifications resulted from a request from a department for an audit of a current position. The change in the position was typically a change in the title, status, or salary range. All reclassifications were posted as position vacancies open for application; they often, however, had an incumbent. Although it was the position that was reclassified, not the
person, it was important to distinguish this position type from others in order to examine the impact of the reclassification of positions on promotion outcomes for women and men.

Whether the position was new, previously held, or reclassified was routinely indicated by Personnel Services in the paper file regarding each vacancy. Dummy variables were created for position type. The categories are new, previously existing, and reclassifications. Previously existing positions is the reference category.

**Allocation.** It was hypothesized that the proportion of the institutional resources allocated by administrative area served as a resource to the individual. Allocation was operationalized as the percentage of the total allocation for new positions for the three year period allocated by administrative area. An index for total allocation was calculated by multiplying the total number of new positions at each pay range by the pay range of the vacancies. The percentage of the total allocated to each administrative area for new positions served as a proxy for total institutional resource allocations by area. In attempt to validate this proxy, a separate analysis to measure the correlation between percentage of new positions and the power and centrality of the unit as empirically established by Hackman (1985) was conducted. Although institutional resource allocation varies over time and by institution, some global environmental forces, such as increased development and computing efforts, should correlate positively with the proxy.

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4 Using share of new positions and their relative pay levels as a proxy for share of budgetary allocations, percentage share by administrative unit varied as follows: business affairs received the highest percentage at 33.9%, academic colleges received 25.6%, academic administration received 16.7%, external affairs received 17.0%, and student affairs received the lowest at 6.8%. These results provide some validation for the proxy relative to Hackman's results. For example, student affairs was expected to receive low returns to their power and centrality, and they did. The large share to business affairs may be a result of the gains Hackman found for administrative computing which is housed for the most part in the business area (see Appendix B). Because academic computing services is included in the academic administration, academic administration would be expected to receive a greater share than it did, however. The large share to the academic colleges may reflect their centrality to the mission of the institution but the category is too gross to corroborate Hackman's findings of differences among the colleges. Finally, external affairs houses development which Hackman found to command a large share of the resources in her study. In this setting, external affairs received a relatively small share of new position dollars.
**Prior position.** The employees promoted held positions prior to their promotion in three different classifications of job titles. Thus, three different pay scales are represented within the data set. The administrative and professional pay scale is used for unclassified positions and was described under the discussion of the dependent variable outcome pay range. Classified positions consist of two classes of positions: "competitive" skilled and "unskilled labor" (State of Ohio, Revised Code, Chapter 124.11, 1987). Each class has its own pay scale. Schedule A is the "unskilled labor" scale which extends from pay level 1 to 12 (State of Ohio, Chapter 124.14, 1987). Schedule B is the "competitive" scale which extends from pay level 23 to 36 (Appendix D lists the pay levels for "competitive" skilled and "unskilled labor"). The three scales overlap in dollar amounts. In order to capture both the differences in pay scale as well as the qualitative differences in classification, two variables were created to represent prior position. Prior pay range is operationalized as the midpoint in dollars of the range of the position held prior to promotion. Prior work structure is a dummy variable with two categories: skilled and unskilled indicating the work structure of the position held prior to promotion. Administrative and professional is the reference category.

**Analyses**

This study used the statistical package SPSS\(^\text{X}\) to analyze the outcomes of promotion for individuals as a function of individual-level resources and position-level (structural) resources. Analysis is contextual in that the multivariate explanatory model includes variables that measure characteristics of the individual and variables that measure characteristics of the

---

5Competitive skilled positions are "all positions for which it is practicable to determine the merit and fitness of applicants by competitive examinations." Unskilled labor are "all positions filled by appointment from lists of applicants registered by the director," and "rated by evidence or tests as considered proper" (State of Ohio, Chapter 124.11, 1987). Examples of competitive positions include University law enforcement officer, management analyst, administrative assistant, computer operator, and clerical specialist. Examples of unskilled labor positions include lab machinist, data entry operator, and clerk.

6The two pay scales were collapsed into one effective January, 1987 (State of Ohio, Chapter 124.152, 1987)
position (Parcel and Mueller, 1983). Controversy surrounding the use of contextual analysis has been based upon models in which the contextual characteristics are aggregates of individual-level characteristics (such as IQ), thus, producing upward bias in estimates of effects (Hauser, 1974). The contextual analysis used in this study follows Lazarsfeld and Menzel (1969) who distinguish between analytical variables (those derived by performing a mathematical operation on data derived from each individual in the group) and global variables (derived as properties of the positions, not from data derived from individuals). None of the position-level variables used in this contextual analysis are analytical, thus avoiding the problem of pitting analytic variables against their individual counterparts and producing upward bias in estimates of effects. The variable allocation is global. The remaining position-level variables, sponsorship, new and reclassified positions, and skilled and unskilled prior work structures are dummy variables; thus, they are indicators of a property (or non-property) of the position.

The ability of women and men to utilize resources and translate these resources into outcomes was examined separately as interaction by gender was anticipated (Stewart and Gudykunst, 1982; Olsen and Becker, 1983). As indicated in the hypotheses, interaction was expected between gender and several of the other independent variables (education, experience, sponsorship and new positions). Interaction terms were added to the equation to test for interaction. Global F tests were used to determine whether the addition of the interaction terms significantly increased the explained variance. The results of the analyses determined whether separation by gender or a pooled analysis was appropriate for this population (Cohen and Cohen, 1983).

Both access to resources and efficacy of resources are of theoretical interest; thus, the analysis began with descriptive data to describe differences by gender in individual-level resources (education, experience, age, and race) and access to position-level resources (sponsorship, position type, allocation, and prior work structure). Means and standard deviations are reported and discussed in the results. Tests for statistical significance were
conducted to determine whether women and men differed significantly in their access to resources. Chi square analyses were used for the nominal variables, and t-tests were used for the interval variables.

Zero-order correlations among the variables were computed and analyzed. The bivariate correlations were examined to determine whether multicollinearity was a problem between individual variables in the analyses. Also, tolerance levels and shifts in the standard error were examined as variables were added to the equation to determine whether multicollinearity was a problem among groups of variables in the analyses.

Three regression models were run in order to test the hypotheses. First, individual resources (gender, education, age experience and race) were examined for their capacity to explain promotion outcomes. Then, the structural resources related to the position to which the person was promoted (sponsorship, position type and budgetary allocation) were added to the equation. Finally, the structural resource related to the position from which the person was promoted (prior work structure) was added in a third equation. Structural resources were added to the individual resources to test the hypothesis regarding the explanatory power of structural variables. Also, prior work structure is added in the final model to determine its unique contribution and to improve upon past efforts in which controls for past position were not possible (Stewart and Gudykunst, 1982; Spaeth, 1988). The explained variance for the entire equation was examined with each addition of a new set of variables to determine whether the addition resulted in a significant increase in the $R^2$. Also for each model, global F tests were conducted for the sets of dummy variables to determine whether they were significant.

In order to retrieve the values of the reference categories for the dummy variables, adjusted means were calculated for each category of each dummy variable. Adjusted means were used to compare the predicted outcomes of promotion for each of the categories at the mean level of the explanatory variables. The results of the data analyses are discussed in the following chapter.
CHAPTER V

RESULTS

Both access to individual and structural resources and efficacy of those resources are of interest in this study; thus, the findings begin with the descriptive data regarding the access of women and men to the resources hypothesized to be relevant to promotion. The description of the population is followed by a discussion of the bivariate correlations among the variables. The three successive models of the multivariate regression on promotion outcomes are then discussed. The hypotheses are tested in the final full model. Lastly, predicted means of promotion outcomes are provided for each of the models.

Description of the Population

The results of the statistical tests for significant differences are indicated on Table 1. Unless otherwise indicated, the alpha level is .05. Of the 454 persons promoted in the target population, 212 (46.7%) were women and 242 (53.3%) were men. As the following discussion indicates, the women and men in this population are similar in their access to individual and structural resources.

Individual resources

Of the 212 women, 38.7% hold Bachelor's degrees, 27.8% hold Master's degrees, and 6.6% hold the Ph. D. (26.9% hold other degrees or no degrees.) Of the 242 men, 45.5% hold
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<td>6,896.594</td>
<td>24,421.993</td>
<td>6,856.359</td>
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</table>

* t-test significant at p < .001
** chi square significant at p < .001
Bachelor's degrees, 22.3% hold Master's degrees, and 10.3% hold the Ph. D. (21.9% hold other degrees or no degrees.) Chi square analysis indicated that there is no significant difference in the proportions of educational degrees attained by women and men in this population. Women have a mean of 9.5 years of experience in the institution prior to the promotion and men have a mean of 8.5 years of experience. The t-test for significance indicated that there is no significant difference in the mean years of experience of women and men in this population.

Women have a mean age of 35.6 at the time of promotion and men have a mean age of 36.7. The t-test for significance indicated that there is no significant difference in the mean age of women and men in this population. Of the women, 6.1% are Black and 2.8% are Asian. (91.1% of the women are white.) Of the men, 4.5% are Black. There were no Asian men promoted during this period. (95.5% of the men are white.) Chi square analysis indicated that there is no significant difference in the proportions of women and men in this population who are Black.

The individual resources of women and men in this population are virtually identical. There are no significant differences in their education, experience, age or race.

**Structural resources**

Sponsorship occurred in the majority of promotions in this study. Of the women, 63.2% were promoted to sponsored positions. Of the men, 69.4% were promoted to sponsored positions. Chi square analysis indicated that there is no significant difference in the proportions of women and men who were promoted to sponsored positions. The access of women and men to the resource of sponsorship is equivalent in this population.

Positions included in the analyses are either newly created, reclassified or previously existing positions. The reference category for this variable is previously existing positions. Women were promoted to positions which were new in 52.8% of the cases and were promoted
to reclassified positions in 10.8% of the cases. Men were promoted to positions which were new in 52.1% of the cases and were promoted to reclassified positions in 13.6% of the cases. Chi square analysis indicated that there is no significant difference in the proportions of women and men who were promoted to new or reclassified positions. The access of women and men to the resource of position type is equivalent in this population.

Allocation is a contextual variable measuring the resources available for new positions in each administrative unit represented in the study. The mean allocation level indicates the mean level of resources assigned to the administrative units of the positions to which individuals were promoted. The mean for women is 23.96, and the mean level for men is 24.40. The t-test for significance indicated that there is no significant difference in the mean allocation of the positions to which women and men were promoted in this population. The access of women and men to the resource of budgetary allocation is equivalent in this population.

The three categories of prior work structure included in the analysis are skilled and unskilled with the administrative and professional category as the reference group. Of the women, 28.8% were promoted into administrative and professional positions from the skilled group, and 6.1% from the unskilled. (65.1% of the women were promoted from within the administrative and professional category.) Of the men, 16.1% were promoted into administrative and professional positions from the skilled group, and 2.9% from the unskilled. (81.0% of the men were promoted from within the administrative and professional category.) Chi square analysis indicated that there is no significant difference in the proportions of women and men who were promoted from unskilled positions; there is, however, a significant difference in the proportions of women and men who were promoted from skilled positions (alpha level of .001). The access of women and men to the resource of position type is not equivalent in this population.

Similarly, the access to prior pay range is significantly different for women and men. Prior pay range is calculated in dollars at the mid-point of the range for the position from which the
individual was promoted. The mean mid-point for women is $22,342, and the mean mid-point for men is $26,243. The t-test for significance indicates that there is a significant difference between women and men in the pay range prior to promotion (alpha level of .001). The access of women and men to the resource of pay prior to promotion is not equivalent in this population.

**Promotion outcomes**

The mean of the dependent variable, the pay range of the position to which they were promoted, is 62.41 for women and 63.97 for men. The t-test for significance indicates that there is a significant difference between women and men in the outcomes of promotion (alpha level of .001). The outcome of promotion for women is significantly lower than that for men in this population.

**Interaction by Gender**

The separation by gender in these analyses was based on prior work suggesting interaction by gender in the process of promotion (Halaby, 1979; Stewart and Gudykunst, 1982; Olsen and Becker, 1983). In order to test the interaction by gender in this population, equations were run including interaction terms for education, experience, age, sponsorship, new jobs, skilled and unskilled jobs. Global F tests\(^1\) were conducted to determine whether the proportion of the contribution to the \(R^2\) that resulted from the addition of each interaction variable was significant (Cohen and Cohen, 1983). The results of the F tests for each set of variables indicated that only new jobs (calculated \(F = 8.5\), critical \(F = 6.69\) at an alpha level of .01) interact with gender in their impact upon promotion outcomes. The results of the tests for

\[
F = \frac{(R^2_{Y|AB} - R^2_{Y|A}) / K_B}{(1 - R^2_{Y|AB}) / (n - K_A - K_B - 1)}
\]

when the set of B has been added to the set of A, and K equals the number of independent variables in the equation (Cohen and Cohen, 1983, p. 145).
interaction between gender and the other variables hypothesized to interact with gender (education, experience, age, sponsorship, skilled and unskilled jobs) were not significant.

The assumption that the entire process of promotion differs for women and men in this population was not supported by the analyses. The process is additive rather than interactive; that is, although the variable gender influences the dependent variable, other independent variables do not vary with gender in their influence upon the dependent variable. Thus, a pooled analyses, combining women and men into a single equation, was used to examine the determinants of promotion outcomes in this population. A dummy variable for gender was added to the analyses in order to examine the influence of gender. The category entered in the analyses was female; the reference category was male.

Tests of Significance

The data set used for these analyses represents a population; that is, all the promotions that occurred during the three year period for which there was complete information were included. A sample was not drawn for purposes of this study. The values represent the actual parameters of the population. Thus, tests of significance were not used to determine whether generalization to a population is warranted but rather to provide additional information regarding the strength of the contributions of each variable. For the same reason, results which were statistically insignificant remain in the equation because they represent actual parameters of the population and are of theoretical interest.
Bivariate Correlations among the Variables

As Table 2 indicates, strength of the correlations\(^2\) among the independent variables are slight to moderate (except among new jobs, female, and the interaction term which is expected and unavoidable) indicating that multicollinearity between independent variables does not exist.

Strength and direction of the correlations between the independent variables and the dependent variable are generally as anticipated. Among the individual resources, being Black or Asian, having a Bachelor's degree, and being female are negatively associated with the outcome of promotion although the correlations are negligible to low. Age, years of experience, and having a Masters or a Ph. D. are positively associated with the outcome of promotion. Among the structural resources, sponsorship and new jobs are positively associated with the outcome of promotion while reclassification and allocation are negatively associated although the correlations between the structural resources and promotion outcomes are negligible to low. The interaction term for new jobs and females is also negative. The association between the prior work structures of skilled and unskilled jobs and the outcomes of promotion are negative as anticipated and of low to moderate strength. Finally, the association between the prior pay range and the outcomes of promotion is positive and very high.

Correlations among the independent variables are generally low. The correlation between age and years of experience is moderately high as would be expected. Similarly, the correlations between prior work structures (skilled and unskilled) and prior pay are negative and of low to moderate strength indicating that these measures of prior position are tapping different dimensions of the position from which an individual was promoted. The independent variables

\(^2\)In this discussion, the strengths of correlations are interpreted as follows: .01-.1 negligible, .2-.3 low, .4-.5 moderate, .6-.7 substantial, and .8-.9 very high.
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<td>.019</td>
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<td>-.002</td>
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with the strongest positive associations with prior pay range are holding the Ph.D. and age. Being female is negatively, although negligibly, associated with the structural resources of sponsorship, reclassification, allocation and prior pay, and positively associated with the categories of skilled and unskilled. The correlations among race and the individual and structural variables are all negligible. The correlations with sponsorship are generally weak but strongest for years of experience, new jobs and reclassification.

**Multivariate Regression of the Explanatory Variables on Promotion Outcomes**

Three models were constructed in order to test the hypotheses. First, promotion outcome were regressed on the individual resources of gender, education, years of experience, age, and race and examined for their ability to explain the variance in outcome. Second, the structural resources of sponsorship, the creation of new jobs, reclassification, and budgetary allocations were added to the individual resources in order to determine whether they added to the explained variance. These structural resources are a function of the position to which the individual was promoted. Thus, in the final model, the prior work structure and prior pay range were added to the model to determine whether they added to the explained variance of promotion outcome. The structural resources in the second set are a function of the position from which the individual was promoted.

The results of each of the three models presented in Table 3 will be discussed in order. The hypotheses are addressed in the discussion of the third model which includes all of the variables hypothesized to explain promotion outcomes. The pattern of findings that would confirm the hypotheses would be that the individual resources of education, age and experience and the structural resources of sponsorship, position creation and allocation would serve as resources for promotion. Being a female, a minority group member, or being promoted from a non-administrative position is expected to act as a vulnerability in promotion outcomes.
And collectively, the addition of structural resources to individual resources is expected to increase the ability to explain variance in promotion outcomes.

Model #1

The results of the regression of individual resources on the outcome of promotion are presented as Model #1 in Table 3. The impact of each of the individual resources (education, experience, age, race and gender) upon promotion outcome is discussed.

**Gender.** The regression of promotion outcome on gender indicates that females differ significantly in their promotion outcomes from the reference category of males (alpha level of .001, one tailed test). On the average, women receive 1.48 less in pay range outcome when promoted than men.

**Education.** The regression of promotion outcome on each of the categories of education indicates that those holding Bachelor's, Master's and Ph.D.'s differ in their promotion outcomes from the reference category of those with no degrees or other degrees. On the average, those holding Bachelor's degrees receive 1.18 more in pay range outcome when promoted, those holding Master's degrees receive 1.65 more in pay range when promoted, and those holding Ph.D.'s receive 3.23 more in pay range when promoted. The global F test for the set of variables representing education shows that obtained F statistic (24.28) is significant (alpha level of .001). Explained variance increases from .15 to .27 with the addition of the variable of education. Education adds significantly to the explained variance of promotion outcomes in the first model as would be expected in a higher education organization.

**Experience.** The regression of promotion outcomes on years of experience indicates that experience is significant in explaining the outcomes of promotion (alpha level of .001, one tailed test). For every one year increase in experience, there is a .09 increase in the pay level outcome of promotion. Comparing the bivariate correlation of experience and promotion outcome (.15) with the standardized coefficient (.23) indicates that there is a slight increase in
<table>
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<th>Independent Variables</th>
<th>Model #1</th>
<th></th>
<th></th>
<th>Model #2</th>
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<td>.744*</td>
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<td>-.012</td>
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*p < .001  **p < .01  *p < .05
Beta for experience relative to the bivariate indicating that the effect of experience was suppressed in the bivariate.

**Age.** The regression of promotion outcomes on age indicates that age is significant in explaining the outcomes of promotion (alpha level of .05, one tailed test). For every one year increase in age, there is a .03 increase in the pay level outcome of promotion. Comparing the bivariate correlation of age and promotion outcome (.20) with the standardized coefficient (.10) indicates that there is a decrease in Beta for age relative to the bivariate. The effect of age on promotion outcome is reduced by half when the effects of gender, experience, race and education are removed.

**Race.** The regression of promotion outcomes on each of the categories of race indicates that neither Blacks nor Asians differ significantly from whites in the promotion outcomes. On the average, Blacks receive .50 less in pay range outcomes when promoted than whites. Asians receive .53 less in pay range outcomes when promoted than whites. The global F test for the set of variables representing race shows that the obtained F statistic (.817) is not significant. Race does not add significantly to the explained variance of promotion outcomes.

In summary, the individual resources of gender, education, experience, and age were significant in explaining promotion outcomes. Race was not significant in this population. Overall, this model explained 27.2% of the variance in promotion outcomes. In the second model, the first set of structural resources was added to the individual resources to determine if the addition increased the ability to explain promotion outcomes.

**Model #2**

The results of the regression equation with the structural resources (sponsorship, position type, and budgetary allocation) added to the individual resources are presented in the
second model in Table 3. The impact of each of the individual resources (gender, education, experience, age, and race) upon promotion outcomes is discussed in order to understand the impact of the addition of the structural resources.

**Sponsorship.** The regression of promotion outcomes on sponsorship indicates that sponsorship is not a significant factor in explaining the outcomes of promotion. To be sponsored for a promotion does not influence the outcomes of promotion for this population.

**Allocation.** The regression of promotion outcomes on budgetary allocation indicates that budgetary allocation is not a significant factor in explaining the outcomes of promotion. Comparing the bivariate correlation of allocation and promotion outcome (.13) with the standardized coefficient (.07) indicates that there is a decrease in Beta for allocation relative to the bivariate. Controlling for the effects of other variables decreases the effect of the budgetary allocation of the unit to which an individual is promoted.

**Position type.** The regression of promotion outcomes on each of the categories of position type indicates that those promoted to newly created or reclassified positions do not differ significantly in their promotion outcomes from the reference category of those promoted to previously existing positions. There is, however, a statistically significant interactive effect between new jobs and females in their effects upon the outcomes of promotion (alpha level of .01, one tailed test). The sign of the coefficient is positive indicating that the effect of new jobs is significantly stronger for females than it is for males. The global F test for the set of variables representing position type shows that obtained F statistic (4.93) is significant (alpha level of .01). Explained variance increases from .28 to .30 with the addition of the variable of position type. Position type adds significantly to the explained variance of promotion outcomes.

**Gender.** With the addition of the structural resources, the strength of the coefficient for gender increases. Females differ significantly in their promotion outcomes from the reference category of males (alpha level of .001, one tailed test). Women receive 2.08 less in pay range
outcomes when promoted then men. Despite the positive effect of new jobs for women, the
addition of the structural resources increases the negative impact of gender for women.

**Education.** After the addition of the structural resources, the strength of the
coefficients on each of the categories of education are reduced slightly. Compared to those
with no degrees or other degrees, those holding Bachelor's degrees receive 1.15 more in pay
range when promoted, those holding Master's degrees receive 1.59 more, and those holding
Ph.D.'s receive 3.06 more. The global F test for the set of variables representing education
shows that obtained F statistic (21.45) is significant (alpha level of .001). Explained variance
increases from .20 to .30 with the addition of the variable of education. Education continues to
add significantly to the explained variance of promotion outcomes in the second model.

**Experience.** The regression of promotion outcomes on years of experience indicates
that experience remains significant in explaining the outcomes of promotion (alpha level of .001,
one tailed test). For every one year increase in experience, there is .08 increase in the pay level
outcome of promotion. Comparing the bivariate correlation of experience and promotion
outcome (.15) with the standardized coefficient (.21) indicates that there is an increase in Beta
for experience relative to the bivariate.

**Age.** Age remains significant in explaining the outcomes of promotion (alpha level of
.05, one tailed test) with the addition of the structural variables. For every one year increase in
age, there is a .03 increase in the pay level outcome of promotion. Comparing the bivariate
correlation of age and promotion outcome (.20) with the standardized coefficient (.11) indicates
that there is a decrease in Beta for age relative to the bivariate.

**Race.** The regression of promotion outcomes on each of the categories of race
indicates that with the addition of the structural resource neither Blacks nor Asians differ
significantly from whites in the promotion outcomes. On the average, Blacks receive .31 less in
pay range outcomes when promoted than whites, and Asians receive .57 less in pay range
outcomes when promoted than whites. The global F test for the set of variables representing
race shows that obtained F statistic (.463) is not significant. Race does not add significantly to the explained variance of promotion outcomes.

In summary, after the addition of the first set of structural resources, the individual resources of education, experience, age and gender remained significant in explaining promotion outcomes. Race was not significant in this population. Overall, this model explains 30.3% of the variance in promotion outcomes. The global F test indicated that the addition of the first set of structural resources contributed significantly to the explained variance in promotion outcomes (calculated F=3.91 is greater than critical F=3.05 at an alpha level of .01). The second set of structural resources were added to the model to determine if the addition increased the ability to explain promotion outcomes.

Model #3

The results of the regression equation with the remaining structural resources (prior work structure) added to model are presented in the third model in Table 3. In this full model, the hypotheses regarding each of the resources are tested.

Prior Work Structure. The regression of promotion outcomes on each of the categories of prior work structure indicates that those promoted from skilled and unskilled positions differ significantly in their promotion outcomes from the reference category of those promoted from administrative and professional positions (alpha level of .001, one tailed test). On the average, those promoted from skilled positions receive 1.86 less in pay range outcomes than the reference group when promoted and those promoted from unskilled positions receive 2.75 less

3The second variable representing the position from which the individual was promoted, prior pay range, was dropped from the analyses. Due to the high correlation between prior pay range and outcome pay range (.831), the addition of prior pay range to the model dominated the equation. The low to moderate bivariate correlations between skilled jobs and prior pay (-.451) and unskilled jobs and prior pay (-.286), suggest that the dummy variables tap qualitative differences among the work structures that are not captured with the collapsed pay range scales.
in pay range outcomes than the reference group when promoted. The global F test for the set of variables representing position type shows that obtained F statistic (43.35) is significant (alpha level of .001). Explained variance increases from .30 to .42 with the addition of the variable of prior work structure. Prior work structure adds significantly to the explained variance of promotion outcomes. Thus, the theoretical prediction that prior work structure acts as a vulnerability for promotion outcomes when individuals are promoted from non-administrative and professional positions is supported.

**Gender.** The strength of the coefficient for gender decreases with the addition of the second set of structural resources; however, women continue to be disadvantaged relative to men. The difference is significant (alpha level of .001, one tailed test). Women receive 1.6 less in pay range outcomes when promoted than men. Thus, the theoretical prediction that gender serves as a resource for men and a vulnerability for women is supported.

**Education.** The strength of the coefficients for each of the categories of education are reduced after the addition of the structural resources. Those holding Bachelor's, Master's and Ph.D.'s differ in their promotion outcomes from the reference category of those with no degrees or other degree. On the average, those holding Bachelor's degrees receive .69 more in pay range when promoted, those holding Master's degrees receive .81 more in pay range when promoted, and those holding Ph.D.'s receive 2.15 more in pay range when promoted. The global F test shows that obtained F statistic (10.71) is significant (alpha level of .001). Explained variance increases from .38 to .42 with the addition of the resource of education. Education adds significantly to the explained variance of promotion outcomes. Thus, the theoretical prediction that education serves as a resource for promotion outcomes is supported. As noted earlier, the interactive effect by gender is not supported.

**Experience.** The regression of promotion outcomes on years of experience indicates that experience remains significant in explaining the outcomes of promotion (alpha level of .001, one tailed test). Comparing the bivariate correlation of experience and promotion outcome (.15)
with the standardized coefficient (.21) indicates that there is an increase in Beta for experience relative to the bivariate indicating that the effect of experience was suppressed in the bivariate. For every one year increase in experience, there is a .082 increase in the pay level outcome of promotion. Thus, the theoretical prediction that experience serves as a resource for promotion outcomes is supported. The interactive effect by gender is not supported.

**Age.** Age remains significant in explaining the outcomes of promotion (alpha level of .05, one tailed test). Comparing the bivariate correlation of age and promotion outcome (.20) with the standardized coefficient (.09) indicates that there is a decrease in Beta for age relative to the bivariate. As was the case in each of the previous models, the effect of age on promotion outcome decreases when the effects of the other explanatory variables are removed. For every one year increase in age, there is a .02 increase in the pay level outcome of promotion. Thus, the theoretical prediction that age serves as a resource for promotion outcomes is supported.

**Race.** With the addition of the structural resources, neither Blacks nor Asians differ significantly from whites in the promotion outcomes. On the average, Blacks receive .20 less in pay range outcomes when promoted than whites, and Asians receive .55 less in pay range outcomes when promoted than whites. The global F test shows that obtained F statistic (.365) is not significant. Thus, the theoretical prediction that minority group membership acts as a vulnerability for promotion outcomes is not supported. There is no significant difference in promotion outcomes by race for this population.

**Sponsorship.** The regression of promotion outcomes on sponsorship indicates that sponsorship is not a significant factor in explaining the outcomes of promotion. Thus, the theoretical prediction that sponsorship serves as a resource for promotion outcomes is not supported. There is no significant difference in promotion outcomes by sponsorship for this population.

**Allocation.** The regression of promotion outcomes on budgetary allocation indicates that budgetary allocation is not a significant factor in explaining the outcomes of promotion.
Comparing the bivariate correlation of allocation and promotion outcome (.13) with the standardized coefficient (.04) indicates that there is a decrease in Beta for allocation relative to the bivariate. As was the case in Model #2, the effect of budgetary allocation is substantially reduced when the effect of other variables is removed. The theoretical prediction that promotion outcomes will vary positively with budgetary allocation is not supported. Budgetary allocations have no significant impact upon promotion outcomes for this population.

Position type. The regression of promotion outcomes on each of the categories of position type indicates that those promoted to newly created or reclassified positions do not differ significantly in their promotion outcomes from the reference category of those promoted to previously existing positions when the additional structural resources are added. There remains, however, a statistically significant interactive effect between new jobs and females in their effects upon the outcomes of promotion (alpha level of .01, one tailed test). The sign of the coefficient is positive indicating that the effect of new jobs remains significantly stronger for females than for males. The global F test shows that obtained F statistic (4.51) is significant (alpha level of .01). Explained variance increases from .40 to .42 with the addition of position type. Position type adds significantly to the explained variance of promotion outcomes. Thus, the theoretical prediction that newly created positions serve as resources for promotion outcomes is supported. The interactive effect for women suggests that the effect of new jobs is significant in the opposite direction of the hypothesized relationship. Women gain more in promotion outcomes from newly created positions relative to previously existing positions than men do.

In summary, with the addition of the second set of structural resources, the individual resources of gender, education, experience, and age remain significant in explaining promotion outcomes. In addition, the structural resources of position type and prior work structure have a significant impact upon promotion outcomes. Overall, this model explains 41.8% of the variance in promotion outcomes. The global F test indicates that the addition of the second set of
structural resources contributes significantly to the explained variance in promotion outcomes (calculated $F=43.5$ is greater than critical $F=7.00$ at an alpha level of .001). Thus, the theoretical prediction that the addition of structural resources to individual resources will increase the ability to explain variance in promotion outcomes is supported with each successive model.

**Adjusted Means of Promotion Outcomes for each Model**

Adjusted means are provided to uncover the reference categories of the dummy variables and to provide a basis for comparing the impact of the addition of each set of variables upon the categories of gender and race. Means are calculated for each category of the dummy variables by using the means for all independent variables except the variable of interest. For example, the following equation is used to calculate the adjusted means for gender for Model #1:

$$Y = a + b_1 x_1 + b_2 x_2 + b_3 x_3 + b_4 x_4 + b_5 x_5 + b_6 x_6 + b_7 x_7 - b_8 x_8$$

when $b_1$ is Bachelor's degree, $b_2$ is Master's degree, $b_3$ is PhD, $b_4$ is experience, $b_5$ is age, $b_6$ is Black, $b_7$ is Asian, and $b_8$ is gender. The mean values ($x$) for each variable except gender are inserted in the equation. The mean of $Y$ is calculated for women by inserting the value of 1 for gender and for men by inserting the value of 0. Thus, the adjusted mean of $Y$ is calculated for women and men assuming that both groups have the same mean level on all other independent variables. It is important to note that although differences between mean pay levels appear to be modest, they represent real differences in dollars. For example, the midpoint of pay level 62 is $25,200, the midpoint of pay level 64 is $30,480 and the midpoint of pay level 66 is $36,840. The adjusted means for the dummy variables in each model are reported in Table 4.
Table 4

Adjusted Means of Promotion Outcomes for Categories of Gender, Race, Education, Position Type and Prior Work Structure

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<th>Adjusted Means</th>
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<td>Model #2 **</td>
<td>Model #3 ***</td>
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</tr>
<tr>
<td><strong>Gender</strong></td>
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<td>Admin &amp; Prof</td>
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<td>63.74</td>
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* Adjusted for gender, education, race and experience
** Adjusted for the individual resources listed above plus sponsorship, budget allocation and position type
*** Adjusted for the individual and structural resources listed above plus prior work structure
Model #1

After removing the effects of other individual resources, the predicted mean outcome of promotion is a pay level of 62.43 for women and a pay level of 63.91 for men. The largest difference in predicted mean outcome of promotion exists between those holding Ph.D.'s who have an adjusted mean of 66.18 and those holding other degrees or no degree who have an adjusted mean of 62.05. Only slight differences exist between the predicted mean outcomes of promotion for Blacks at 62.75, for Asians at 62.69, and for whites at 63.25.

Model #2

With the additional adjustment for the structural resources of sponsorship, budget allocation and position type, the predicted mean outcome of promotion decreases slightly to a pay level of 62.12 for women and increases slightly to a pay level of 64.20 for men. Thus, there is a two level pay spread between women and men in this model. There is virtually no change in the predicted means for those with different levels of education or for Blacks, Asians and whites in this model compared to the model adjusted for individual resources only. There is also virtually no difference in predicted mean outcome for those promoted to new, reclassified or existing positions when the effects of the other variables are removed.

Model #3

The addition of the final set of structural variables controls for the prior work location of those promoted. The largest difference in predicted mean outcome of promotion for any of the models is the difference between those promoted from unskilled positions who have an adjusted mean of 60.58 and those promoted from administrative and professional positions who have an adjusted mean of 63.74. There is a difference of three pay levels for these employees. Those promoted from skilled positions have an adjusted mean outcome of 61.76.
Comparing Model #3 with Model #2, the predicted mean outcome of promotion increases slightly to a pay level of 62.36 for women and decreases slightly to a pay level of 63.96 for men when the effects of all other variables are removed. Thus, there is a 1.6 level pay spread between women and men in the final model. The addition of prior work location has a modest negative effect on the predicted mean outcomes of promotion for those holding Bachelor's, Master's and Ph.D.'s, but for those holding other degrees or no degree the effect is positive. There is virtually no change in predicted means for race or for those promoted to different position types in this model.

In summary, the overall pattern of predicted means is as expected. There are substantial mean differences by gender with women gaining less than men from promotion in each of the three models. Similarly, although the differences are slight, whites do better than Blacks and Asians in promotion outcomes. Additionally, each educational degree results in an increase in pay level outcomes. The type of position (new, reclassified or existing) makes virtually no difference in outcomes; however, the work structure from which one was promoted makes a substantial difference in mean outcomes even after the effects of the other resources are removed.

The findings reported in this chapter are discussed in the following chapter. The findings are interpreted within the context of the theoretical framework presented in chapter II as well as within the context of what is known about administrative promotion in higher education organizations.
The premise of this study was that organizations influence individual career advancement by determining the distribution of positions and their respective rewards as well as the policies and practices governing promotion decisions. The findings provide support for the premise as well as evidence that organizational structure constrains attainment through promotion for certain groups more than others. The following discussion interprets the findings of this study within the context of the theoretical framework and prior research on administrative promotion.

The findings are discussed in response to the two questions posed: 1) Do individual and structural resources explain the outcomes of administrative promotion within a higher education organization? and, 2) Do individual and structural resources operate differently by gender?

**Do individual and structural resources explain the outcomes of administrative promotion?**

The individual and structural resources measured in this study explain 42% of the variance in outcomes of administrative promotion within this higher education organization. The individual resources of education, experience, age and gender are important to promotion outcomes. As a set, they explain 27% of the variance in outcomes, and they remain important as the structural variables are added. Individual resources should not be ignored; the findings
indicate, however, that individual resources play only a partial role in explaining the outcomes of promotions.

The addition of the structural variables makes a difference although individually they are not all statistically significant. The conceptualization of structural resources in this study built on prior work. As noted earlier, scholarship on organizational structural dimensions yields little consensus as to what structural dimensions should be included in analyses: Granovetter (1981) suggests "the matching process" rather than individual or job characteristics; Rosenbaum (1984) argues for the attributes of jobs, such as the chance for promotion; and Spilerman (1986) maintains that the arrangement of work and the rules that govern hiring and promotion are the structural dimensions of consequence. Each of the structural resources are discussed in the following sections in order to shed some light on the relative fruitfulness of these approaches.

Prior work structure

Of the structural resources examined, the most powerful is the prior work structure. An individual's location within the organizational structure of work has implications for achievement. Although the addition of each set of structural resources significantly increased the explained variance in promotion outcomes, the resource that was a function of the position from which the individual moved was more influential than those resources that were a function of the position to which the individual moved. Examining again the predicted mean outcomes of promotion (Table 4), the largest disparity in promotion outcomes exists between those promoted from unskilled (60.58), skilled (61.76), and administrative and professional positions (63.74). Despite the adjustment for educational attainment, years of experience and gender, prior position has a major impact on the outcomes of promotion. Specifically, employment in non-administrative work structures acts as a vulnerability to those employees in the promotion process.

The findings provide support for Spilerman's (1986) contention that the arrangement of work within an organization has implications for employee outcomes. In this study, the
administrative and professional positions reflect what Spilerman calls a unitary structure of work or a structure in which rules are not explicit but rather managers have the discretion to make promotion decisions within normative guidelines. Those individuals moving from non-administrative positions are moving from a simple structure or a structure in which the rules are explicit, and salary advancement and promotion are regulated. Those who move from the simple to the unitary structure in this setting gain significantly less from their promotions than those who move within the unitary structure. A number of explanations are plausible: persons in lower tier or secondary markets are removed from the social networks necessary to learn about upper tier jobs (Miller, 1982); jobs in these arenas do not provide for internal advancement (Doeringer and Piore, 1971; Piore, 1975); and the organization is served by the low turnover and stability of those in clerical and secretarial roles; thus, persons in those roles are not reinforced to aspire to advance, and they are rarely promoted (Kanter, 1977). For example, Kanter reports that even after the establishment of policies and procedures regarding the promotion of non-managerial staff, in the first year of a centralized system not one person was promoted from the non-managerial staff.

Each of these explanations address the disadvantage experienced by those moving from non-administrative to administrative structures as a consequence of structure. The structural consequences cannot be separated from the role of social and power relations suggested by Hodson (1983). Persons attempting to move out of non-administrative ranks may be disadvantaged due to their placement in a hierarchical organization of work. Hiring officials may assess those holding skilled and unskilled positions as a function of their perceived social standing and their ability to "fit" in an administrative setting rather than upon individual resources, such as education, experience or potential for administrative work. These findings support Kanter's contention that assessments of employees' potential are influenced by the positions they hold. Thus, the point of entry into an organization has consequences for achievement.
Nonetheless, this is a study of those who have been promoted, and in this setting, more than one fourth (120 of 454) of those promoted into administrative positions in a three year period were promoted from non-administrative positions. That they were promoted from outside the administrative ranks may be more significant than that their outcomes were less than those who were promoted from within (Benét, 1972; Kanter, 1977; Vinnicombe, 1980). Moreover, of the 120 individuals promoted from non-administrative positions, the majority were women (62%). Thus, movement from non-administrative ranks is a promotion pattern for women in this setting and deserves further study. These data do not provide information as to what proportion of non-administrative personnel apply for administrative positions, what proportion are promoted, or what proportion continue to advance within the administrative structure. Further data regarding the nature of the positions from which non-administrative personnel moved and to which they moved would enhance understanding of these promotions.

Gender remains a vulnerability for women despite the control for prior position. Although, as might have been expected, the addition of prior work structure in the final model did decrease the negative impact of gender for women. One explanation for the lack of women in senior level positions is that they haven't been around long enough—an argument that suggests that they must start at the bottom and move through the ranks. This suggests, however, that once the impact of prior position is removed from the analysis women should do as well as men given equivalent individual resources. An important finding of the full model is that after removing the effects of the individual and structural resources, particularly prior work structure, women remain disadvantaged.

New positions and Budgetary Allocation

Two of the structural variables examined in this study, the creation of new positions and the budgetary allocation of the administrative unit, were attempts to approximate attributes of the position to which an individual is promoted and determine whether these position level
attributes explain outcomes. The argument regarding the budgetary allocation is straightforward: administrative units that command a larger proportion of the institutional resources than other units may be expected to provide increased opportunity for promotion and promotion outcomes for employees. A proxy, percentage share of new positions, was used to measure proportion of the institutional resources enjoyed by a given administrative unit during this time period. The lack of significance of this contextual variable may be an indication that the proxy is an inadequate measure. Or the lack of significance may be due to the nature of the dependent variable; that is, although new positions represent increased opportunities in terms of numbers of positions, they are not necessarily an increase in opportunities at relatively high pay levels. Thus, relative to existing positions, new positions are not significant resources for promotion outcomes.

For example, the new positions created may be at mid to low levels or even at sufficiently low levels to enable two positions to be added to the unit rather than one "expensive" addition to the staff. This is consistent with findings indicating that large academic organizations exhibit an economy of scale in administrative costs (Brinkman and Leslie, 1986); specifically, as their size increases, the proportion of senior level administrators to lower and mid-level administrators decreases (Blau, 1973). Also, adopting a vacancy chain approach (White, 1970), the new position may be at a relatively high pay level but it will create a chain of vacant positions at increasingly lower pay levels. Thus, the net increase of new positions are spread across the pay levels and do not serve employees as a resource any more than previously existing positions do. Additionally, these data do not allow for the examination of position elimination which may confound any advantage to administrative units of allocations for new positions.

The fact that the main effect of new positions is not significant may also be due to the dependent variable which measures level of outcomes and not number of promotions. It is important to note, however, that of the 454 promotions, 238 (52.4%) are new positions. The
designation of a position as "new" is determined by the University Personnel Office, and in this study, new positions exclude those positions that are formally designated as reclassified positions (changes in title, job description or pay level that are the result of a job audit). The number of new positions in this study is striking and raises questions as to whether these positions are actual additions to the workforce.

For example, Baron and Bielby (1986) examine the "proliferation of job titles in organizations" (p. 561) as a function of organizational characteristics. In a longitudinal analysis of 368 California establishments from 1959-1979, they found that the greatest increases in job titles occurred in large growing enterprises with a high percentage of professional, technical and managerial employees. They argue that the fragmentation of job titles has implications for worker attainments because job titles are tied to wage and status differentials. New job titles may be the result of hiring officials seeking to create status differentials or to provide non-monetary rewards for employees beyond what the structural arrangement of jobs will provide. Or, applying the logic of evolved jobs (Miner and Estler, 1985), individuals evolve jobs by accruing responsibilities, and subsequently, organizations formally recognize these evolved jobs. The creation of a new position may recognize a position an individual has evolved but may not provide increased reward. Thus, new jobs may not act as a resource for individuals in promotion outcomes because they represent essentially a title or a status differential without a significant increase in monetary rewards.

Differential access to newly created positions has been noted in the higher education literature. In a study of presidents, provosts, vice presidents and deans, Moore (1983) found that white men were more likely than women or black men to be appointed to new positions. Although access to new positions was equivalent for women and men in this study, the difference in the findings may be a result of the difference in the level of positions included. Moore focused on the "top-line" (p.1), and this study included a broad range of entry and mid-level administrative and professional positions. It seems plausible that new positions at senior
levels are more accessible to men than women, while at the entry and middle-levets, women and men attain new positions in similar proportions.

The fact that the interaction between new jobs and women is significant and positive, however, indicates that women benefit in promotion outcomes from new positions relative to existing positions. A possible explanation is that new jobs are being created and earmarked for women in order to meet affirmative action mandates for equity. Women are also more likely than men to move to new positions that are sponsored positions. In this study, women are benefiting from their appointments to new positions; nonetheless, a caution should be raised regarding the interpretation of this finding. Without examining the nature of the newly created positions, it is not clear whether these new positions will contribute to future career advancement for women.

For example, Moore and Sagaria (1982) distinguish between line (chain of command positions facilitating the primary tasks of teaching, research and service) and staff (support positions providing service to the primary units and adjunct to line functions) positions in higher education organizations (pp. 503-4). They provide evidence that men are more likely than women to hold line positions, and women are more likely than men to hold staff positions. Moore and Sagaria suggest that the nature of the position held has implications for mobility because line positions are the normative path for advancement and movement from staff to line positions is atypical. The academic administrative positions in their study include senior-level positions for which faculty rank and tenure is required—a group excluded from this study. Nevertheless, their conclusion that women’s mobility is constrained by the nature of the position has relevance for interpreting “outcomes” in this study. Kanter (1977) also argued that positions created for women which are “women’s slots” may be essentially, dead-ends (p. 232). For example, three studies of the representation of women and minorities in student affairs administration found women and minorities occupying primarily entry level positions or positions
devoted to women's or minority programming (Myers and Sandeen, 1973; Wilson, 1977; Harter, Moden and Wilson, 1982).

There is insufficient evidence in this study to draw conclusions regarding the impact of new positions upon women's future mobility. If these positions are "new," some time must pass before their impact upon career patterns can be assessed. The finding that new positions act as a resource for women's achievement in promotion requires closer examination. The nature and location of the new positions filled by women may have implications for their career advancement.

**Sponsorship**

Sponsorship was operationally defined to measure one aspect of the matching process—the decision to select a candidate without comparing that candidate to others in a search process. In previous research, sponsorship has been viewed as a means of providing valued personalized information in the decision making process (Kanter, 1977; Granovetter, 1974, 1981). Sponsorship may serve individuals by enabling them to circumvent competition with other candidates and may serve the organization by providing an efficient means for promoting employees without the effort of an extensive search process.

Sponsorship is an institutionalized practice for promotion in this setting. Of the 454 positions filled by promotion in this study, 302 (66.5%) were filled by designating a candidate as "under consideration" prior to the search. One explanation for the lack of statistical significance is that the practice is so widespread across all pay levels, that the outcomes of sponsorship are essentially no different than the outcomes of promotion to non-sponsored positions. Sponsorship may be prevalent because it provides a means to reduce uncertainty and increase managerial discretion in decisions about staffing. Rather than examining the pool of candidates and assessing the relative merits of each for the position, sponsorship allows the hiring official to avoid this task and designate a known candidate at the time the position is posted. Sponsorship...
may serve several purposes: 1) reduces the pool of applicants because it signals other potential candidates within the organization that there is a designated candidate, 2) lessens employees' false expectations regarding position vacancies because those vacancies not open for competition are identified, and 3) eliminates some of the procedures for hiring and promoting because fewer candidates mean fewer sets of credentials to assess, fewer non-selections to justify, and thus, fewer contacts with personnel staff and affirmative action officers.

Given these advantages to hiring officials, it is understandable that the practice is widespread. Nonetheless, despite the lack of statistical significance in explaining outcomes, the practice may institutionalize a means for maintaining the status quo among employees. Sponsorship may perpetuate the individual characteristics of those making the promotion decisions. For example, race was not a statistically significant variable in these data; however, this is a study of those promoted, and the number of minority group members who were promoted was small (6.6% were non-white). Although these data do not provide an explanation for those not promoted, sponsorship may contribute to the advantage whites retain within the organization. Because the majority of promotions are filled through sponsorship of white candidates, sponsorship may effectively discriminate against minority group members by eliminating them from consideration.

Moreover, sponsorship may operate differently at different levels of the organization. Sponsorship may be particularly prevalent in senior level positions for which objective qualifications are difficult to measure, and trust and discretion increase in importance (Kanter, 1977; Pfeffer, 1977; Sagaria, 1985). Sagaria and Johnsrud (1987b) report that the highest proportion of sponsorship occurred at the highest pay levels, and men were promoted to the largest proportion of these positions. The lack of statistical significance of sponsorship may be an artifact of these data which excluded senior academic positions for which sponsorship may be a stronger determinant of promotion outcomes.
Both women and men are sponsored for promotion with 63.2% of the women and 69.4% of the men attaining sponsored positions. The idea of "homosocial reproduction" by predominantly male hiring officials (Kanter, 1977) suggests that women would not benefit to the extent that men would from sponsorship. It could be, however, that affirmative action legislation mandating equity has prompted hiring officials to look carefully at women internal to the organization, particularly at those women they know or with whom they are comfortable, and to use sponsorship to promote women they know rather than risk hiring an unknown woman from an external pool. This is consistent with recent scholarship indicating that since the early 1970's women have been more likely to be promoted from within higher education institutions than recruited from external markets (Sagaria, 1988). While the use of sponsorship to act affirmatively on behalf of women in the organization is positive, two potential outcomes must be noted: 1) the use of sponsorship to avoid external hires serves to maintain the ratio of women to men in the organization rather than increasing the number of women, and 2) the practice may serve whites to the detriment of non-whites.

Thus, although sponsorship does not contribute significantly to explaining the dependent variable of outcome pay level in this study, it deserves further attention. These findings indicate that it is a prevalent means for matching persons and jobs within this organization, and it may operate differently at different levels of the organization and for different groups of employees.

In partial summary, structural resources such as prior work structure, new positions, budgetary allocation and sponsorship do influence the outcomes of promotion. Examining only the individual resources women and men bring to the organization provides a partial explanation of outcomes. Next, the impact of gender in relation to individual and structural resources is discussed.
Do individual and structural resources operate differently by gender?

This study confirms the negative returns women accrue due to their gender. Antecedent research has provided mixed results as to whether gender acts as an additive or an interactive factor in promotion outcomes (Halaby, 1979; Stewart and Gudykunst, 1982; Olsen and Becker, 1983). Analyses run to determine interaction by gender did not support interaction for the process of promotion as measured in this study. Stewart and Gudykunst (1982) do not report significant interaction either; rather they justify separate equations based on significant mean differences between women and men in the dependent variables. Halaby (1979) tests for interaction and reports statistically significant interaction by gender on two of the four independent variables (schooling and number of prior positions) included in his study—neither of which remain significant after he controls for the hierarchical rank of the position held. Olsen and Becker (1983) report that their test for interaction was not significant. Nevertheless, they base their conclusion that the promotion process varies by gender on the fact that the coefficient on the dummy variable for gender is negative when they combine the two groups, and that the intercepts differ significantly when they separate women and men. Each of these studies seem to have confirmed an additive rather than an interactive process.

Despite differing assumptions and interpretations of the role of gender in promotion, each of the studies cited above documents a disadvantage to women. Based on the interactive analyses in this study, however, individual and structural resources serve women and men in similar ways; that is, both women and men capitalize upon their resources of education, experience, and age, and both can anticipate prior work structure to act as a vulnerability if they are in non-administrative structures. Only new jobs serve women and men differently in this study. The lack of interaction among the independent variables and gender may be due to the equivalent resources attained by women and men in the population studied. Women and men did not differ significantly on educational degrees attained, years of experience accrued, age or race (with the exception that there were no Asian men). The women and men who were
promoted to administrative and professional positions in this higher education organization look very much alike in those attributes traditionally associated with advancement. Baron (1984) speculates that when attributes are shared by too many people they no longer help to differentiate among employees. Because women and men in this study are similar in education and experience, those making promotion decisions may search for other criteria upon which to base their decisions. Thus, the homogeneity of this population may reinforce the use of other criteria, such as gender.

**Education and Experience**

Moreover, the findings of this study do not corroborate prior work regarding the efficacy of education and experience for women and men. Rosenbaum (1984), Halaby (1979), and Stewart and Gudykunst (1982) each document lower returns to women for education and experience in promotion. Returns to the resources of education and experience did not vary by gender in this study. Within this group of administrative personnel, women did not receive significantly lower returns to their education, experience or age than men received for theirs. Within a professional organization in which there is a high level of educational attainment and a high value placed upon educational attainment, there may be more equitable returns than in other settings. For example, in corporate settings there may be greater variation in the educational levels of the employees than in professional organizations, and thus, education may serve more effectively as a screening mechanism, and may interact with gender to the disadvantage of women. A high level of educational attainment may characterize the employees of professional organizations in general, but the situation may be accentuated in higher education. It seems plausible that educational credentials are considered relevant to more positions in higher education organizations and are more often required for entry to administrative positions than might be the case in other settings. Moreover, continued education is often offered as a benefit to employees within higher education and is readily
accessible. As a result of these factors, some of which are unique to higher education organizations, education may be a particularly important determinant of promotion outcomes for both women and men.

Similarly, experience did not serve women and men differently in this setting. Years of service to the institution is an important determinant of promotion outcomes, and both women and men had equivalent experience in the institution. One limitation of the data set is that there is no information about experience prior to the years served in this institution. Spaeth (1988) argues, however, that prior experience should influence the level of the entry position, and after that experience prior to this employer should be irrelevant to promotions. Nonetheless, it may be that a better indicator of years of experience or even relevance of experience might yield different results. Of the women and men promoted in this study, women averaged 9.5 years of service and men averaged 8.5 years. Again, it may be the homogeneity of the population in regard to this resource that prompts those making promotion decisions to look to other criteria on which to base decisions.

In partial summary, women and men have similar individual and structural resources in this population. Women did not receive lower returns to their individual and structural resources than men received. Nevertheless, a significant finding remains unexplained: women are disadvantaged by their gender and men are not.

**Gender**

Turning then to a different question: what accounts for the impact of gender? Women gain 1.6 pay levels less from their promotions than men. The explanatory power of gender after removing the effects of the individual and structural resources suggests two possible interpretations: either there are personal attributes, unmeasured in this study, that vary by gender and are the basis for the promotion decisions or those making the promotion decisions are discriminating on the basis of gender. Unmeasured personal attributes could include:
performance, ability, personality, desire—most of which are difficult to measure. Granovetter (1986) argues that performance is rarely measured well except in such specialized jobs as typing. Kanter (1977) reports that managers perceive such factors as reliability, dependability, skill with people and seniority as more important for promotions than exceptional performance. She suggests that "fitting in socially" or "social credentials" are common substitutes for ability measures in management positions (p. 61). Subjective job involvement has been offered as a gender difference that might explain differences in work outcomes for women and men (Becker, 1985). The argument suggests that due to gender socialization and family responsibilities women are less involved in their jobs, and thus, less likely to achieve the outcomes in earnings or promotion that men achieve. However, in an examination of job involvement using 1972-73 and 1977 Quality of Employment Surveys, Lorence (1987) found that women were more involved in their jobs than men after controlling for differences in work autonomy. Drawing upon the few studies that have considered personal attributes, there seems to be no empirical substantiation that personal attributes should systematically bias the aggregate outcomes of women relative to men.

One limitation of these data is that there are no indicators of performance reviews or evaluations that might provide insight not only to performance on the job but also to personal characteristics that are associated with advancement such as initiative, commitment, and potential for leadership. Nonetheless, it must be recalled that the women in this study were all promoted; in other words, they are promotable. They are not stuck; they are movers. They had the personal and professional attributes necessary for promotion but they did not get the same returns to their promotions as men did to theirs.

This study did not measure discrimination but the findings support the consideration of discrimination as a factor in the disparate outcomes of women and men. Other researchers have suggested discrimination also. For example, Olsen and Becker (1983) argue that women are held to different standards for promotion by hiring officials than men are. Their data indicate that
women would have received substantially more promotions had they been held to the same standards as men. Both Malkiel and Malkiel (1973) and Halaby (1979) speculate that the mechanism for discrimination may be rank segregation. That is, the assignment to different job levels may be the means by which women employees with equal characteristics get less pay. It is suggested that it is more difficult to give unequal pay to equal jobs; thus, assignment to unequal job levels justifies a disparity in wages. The assignment may be the mechanism for discrimination. The current study, however, controls for differing arenas of work if not levels, and women still suffer a disadvantage.1

Attitudes and Social Relations

In the Fogarty et al. study (1981), a follow-up was conducted to examine the mobility of women in four case study sites eleven years after the original work, the authors note that women report "feeling frozen out in subtle ways" and that there is a "social resistance to women who do well" (p. 116). These authors conclude that despite personnel policy encouraging the promotion of women, the decision to promote rests with individual officials, and thus, women's career development is as dependent upon individual attitudes after policies are enacted as it was before the policies were conceived.

Promotion decisions are essentially individual decisions made by hiring officials on behalf of the organization. Despite policy, procedure, and mandates for equity, final personnel decisions remain in the hands of individuals responsible for matching persons and jobs. Thus, the attitudes of the hiring officials regarding women and men and their capacity and appropriateness for promotion cannot help but play a part in those decisions. After removing the effects of individual and structural resources relevant to promotion and noting the persistent

1In a preliminary analysis, when the variable prior pay level was added to the full equation (it was dropped from the final analyses because it dominated the equation) gender remained significant and negative. In fact, after adding this control for prior job level, gender was the strongest predictor of promotion outcomes, second only to prior pay level.
impact of gender, it is difficult to avoid the conclusion that attitudes of decision makers are working to the detriment of women in this population.

Kanter (1977) argues that blaming discriminatory attitudes by men for women's lack of progress is no more helpful than blaming women. Nonetheless, understanding why men may hold discriminatory attitudes makes them no less discriminatory. Kanter's major explanation for the attitudes of hiring officials is that lack of opportunity, power and numbers spawns behavior in minority group members that reinforces the perception that they are not capable of advancement. She argues that the dynamics are less a matter of gender and more a matter of the structural consequences of hierarchical organization. In many respects, examining promotion in this higher education organization provides a challenge to this explanation. Administrative and professional staffs provide a group in which women are found in large numbers. Their numbers are less skewed than they might be in corporate structures. The women studied were "movers" and their number was substantial (212 women were promoted in the three year period as compared to 242 men). These women and men were equivalent in their educational attainment and were employed in a professional organization that tends to value those with high levels of education. This study statistically controlled for prior position—a control that should capture the lack of opportunity and power described by Kanter. Given this population, this setting and these controls, gender would not be expected to remain as powerful an influence on promotion outcomes as it does. If Kanter's explanation that promotion is structurally determined were sufficient, prior position would be expected to virtually eliminate the impact of gender. Gender remains a major determinant of outcomes and being female disadvantages women.

The role of gender also deserves more attention in Hodson's conceptualization (1983) of resources and vulnerabilities. Although he emphasizes the impact of social relations and power and their mediating effect on workplace outcomes, he considers this factor primarily in regard to relations between owner and worker or employer and employee. That is, negotiations
and communications in which both employer and employee play an active role are described to illustrate the reciprocity that exists in the workplace. Hodson includes class, unionization, race and gender in his analyses in order to move beyond economic interpretations of workplace outcomes and to demonstrate the importance of social relations. Nonetheless, by using concentration, capital intensity, and size as examples of the dimensions that hold potential advantage for each set of actors in the workplace, Hodson restricts the discussion to a level of aggregation that conceptually diminishes the role of gender.

In the study of promotion, the social relations of consequence are those that influence the actual decisions that match persons to jobs. The power of gender in these findings underscores the power of social relations in decisions that determine workplace outcomes.

**Summary.** The findings have been discussed in response to the two major questions of the study. In answer to the first, do individual and structural resources explain the outcomes of administrative promotion, based upon these findings, the answer is yes. Both individual and structural resources are important to the outcomes of promotion. Moreover, neither individual nor structural resources are sufficient alone. It is as much an error to measure structural impact without considering individual characteristics as it is to measure individual characteristics and ignore structure.

In answer to the second question, do individual and structural resources operate differently by gender, based upon these findings, the answer is no. The returns to individual and structural resources do not vary by gender in this study. The process of promotion is essentially the same for women and men with one major difference: being female disadvantages women.

The final chapter provides a summary of the study as well as implications of the findings for theory, policy and future research.
CHAPTER VII

SUMMARY AND CONCLUSION

The intent of this study was to further develop the theory regarding the organizational structure of work, to examine the impact of individual and structural resources upon the outcomes of promotion of administrative staff members in a higher education organization, and to determine whether the impact of resources differs by gender. This chapter provides a summary of the study, including the theoretical framework and hypotheses, the data and methods, and the findings. The limitations of the data are also discussed. Implications for theory, policy and future research are discussed and the major conclusions are noted.

Summary of the Study

The purpose of this study was to extend the theoretical framework of structural resources and vulnerabilities to an examination of individual promotion outcomes at the organizational level. Hodson (1983) argues that corporate and industrial level economic structure is an important determinant of employee's earnings because dimensions of the structure serve as resources and vulnerabilities to employees as well as employers. This study follows Baron and Bielby (1980, 1984) and Spilerman (1986) in underscoring the importance of examining individual outcomes at the level of analysis most proximate to the individual. Thus, in this study individual outcomes are examined as a function of the decisions that match persons and jobs, the structures of work within the organization and the rules and policies that govern promotion.
The resource perspective was summarized in Chapter II in order to illustrate its relevance to the administrative structure of a higher education organization and the mobility of administrative employees. The growth and evolution of administrative structure in higher education was outlined to illustrate the parallel emergence of bureaucratic structures in higher education and the profit sector at the turn of the century. Both efficiency and control explanations for the growth in bureaucracy and administrative structures were discussed and shown to be applicable to higher education organizations as well as industrial organizations. Two tenets of Hodson's argument are expanded upon in this study. First, Hodson contends that there are explanations for the evolution of structure other than labor control. The rationale for this argument was further developed by drawing from the complex organizational literature that provides theoretical support and empirical evidence for multiple determinants of organizational structure. This work was shown to have particular relevance for higher education organizations because they have been examined as professional organizations subject to the pressures of technological change, environmental demands, and task complexity (Baldridge, 1971; Blau, 1973).

The second tenet of Hodson's argument requiring further development when applied to an organizational level of analysis was the effect of social relations and power upon individual outcomes. In this study of promotion, the social relations of consequence are those that influence the person-job matching process. Evidence that social and power relations influence outcomes for individuals was drawn primarily from work by Granovetter (1974) and Kanter (1977). Gender and the prior position of the individual promoted were two variables included in the study to approximate dimensions of social relations and power at work in the decision to promote.

Chapter III presents the hypotheses and grounds each of the individual and structural resources in the related literature. Prior work on promotion in corporate settings as well as that in higher education was reviewed as background for the hypotheses. Individual resources of
education, age and experience and the structural resources of sponsorship, position creation and budgetary allocation were hypothesized to serve as resources for promotion. Being a female, a minority group member, and being promoted from a non-administrative position were expected to act as vulnerabilities in promotion outcomes. The addition of structural resources to individual resources was expected to increase the ability to explain variance in promotion outcomes.

The data set used to test the hypotheses included individual and position level variables relevant to the promotions of 454 employees to administrative and professional positions within a large public research university. Chapter III detailed the population studied and operationally defined the variables. Based on the lack of significant interaction among the independent variables in the preliminary analyses, a pooled analysis was used to examine the determinants of promotion for the population. Three successive models of the multivariate regression on promotion outcome were presented.

The results of the analyses, reported in Chapter V, began with descriptive data indicating that the women and men in this population were essentially identical in their access to individual resources. That is, there were no statistically significant differences in the proportions of educational degrees attained, years of experience accrued, age or race (with the exception that there were no Asian men). Also there were no statistically significant differences in the access of women and men to sponsored positions, new positions or level of budgetary allocation. There was a difference in access to prior position with a significantly larger proportion of women than men promoted from skilled positions. The outcome of promotion also differed significantly by gender with women averaging a 1.6 lower pay level outcome (on a 17 point scale) for their promotions than men.

The hypotheses were tested with the full model including all of the individual and structural variables. Those promoted from skilled and unskilled positions differed significantly in promotion outcomes compared with those who were promoted from within the administrative
and professional ranks. The hypothesis that promotion from a non-administrative position acts as a vulnerability in promotion outcomes was confirmed. Hypotheses were also confirmed regarding the influence of education, years of experience, and age as resources for promotion outcomes. Race was not statistically significant but the impact for non-whites was negative, and sponsorship, budgetary allocations and the main effect of new jobs were not statistically significant (the interaction between new jobs and women was significant), thus disconfirming hypotheses that these variables serve as resources for promotion outcomes. Gender remained significant in each model confirming the hypothesis that being female is a vulnerability for women. Overall, the final model explained 41.8% of the variance in promotion outcomes. There was a statistically significant increase in explained variance with each addition of structural resources providing support for the hypothesis that the addition of structural resources to individual resources increases the ability to explain promotion outcomes.

The discussion of the empirical results of the study emphasized the importance of including both individual and structural variables in analyses of individual attainments in the workplace. Analyses which include only individual characteristics and neglect the context of the work structure are providing only a partial explanation of the determinants of workplace outcomes. Although the variables measured in this study provide inconclusive support for the impact of dimensions of the position achieved as a result of promotion, two variables emerged as the most influential determinants of the outcomes of promotion: gender and prior work structure. The impact of these two variables provides strong evidence for the need to attend to the role of social relations and power in the work place.

Limitations of the Study

The major limitation of any case study is its lack of generalizability. The findings of this study regarding the determinants of promotion can be generalized beyond this public research university only to the extent that the structure of work and the personnel policies and practices
in this setting can be shown to operate in the same fashion in other settings. The advantage of examining one organization, however, is the ability to assess the impact of position level dimensions upon the outcomes of employees. A strong case for single organizational studies has been made in prior work (Baron and Bielby, 1984; Baron, Davis-Blake, and Bielby, 1986; Spilerman, 1986). The lack of homogeniety across organizations requires case studies in order to ascertain whether structural dimensions affect promotion outcomes for individuals.

Two questions were addressed in this study: do individual and organizational resources influence the outcomes of promotion? and do individual and organizational resources operate differently by gender? These questions can be best answered within a setting in which all promotions are guided by the same policies and practice and occur within one salary structure. Subsequent work, however, needs to identify similarities and differences in policies, practice and structure across organizations in order to enhance our understanding of the impact of organizational structure on individual outcomes.

The use of pay levels as the dependent variable in this study offers the advantage of reflecting organizational categories of status and responsibility without the confounding addition of monetary increases, such as cost of living or merit raises, that are unrelated to advancement through the categories. Nonetheless, pay levels are gross categories, and their use may obscure real differences in earnings that exist between women and men in the administrative ranks. Moreover, the use of pay level as the dependent variable does not adequately measure the impact of variables such as new positions which may offer increased opportunity for promotion rather than increased pay level. The lack of explanatory power of the budgetary allocation of the administrative unit to which the individual was promoted may also be a result of the nature of the dependent variable. It is plausible that increased resources for new positions result in increased benefit to employees. Before dismissing this hypothesis, it is important to consider alternative measures that might improve upon the one employed in this study.
Another limitation of this study was at the same time its virtue. The use of archival data in the form of institutional personnel records is a rarely tapped source of data for career mobility research. It is rich in its breadth and offers the advantage of reliability as the official documentation for salary, tax, and retirement purposes. The disadvantage is the fact that, as in this case, it was not collected for research purposes; therefore, the investigator must contend with the limits of incomplete and missing data.

For example, only those promoted were included in the data set. Studying only movers reduces the variability and provides no non-movers with whom to compare access to individual and structural resources. Also if a measure of performance were included, it would be possible to determine whether supervisor assessments of ability and potential serve as resources or vulnerabilities in the promotion process. And finally, the population studied was chosen because little systematic attention has been paid to middle managers in higher education. However, the exclusion of senior level positions may have eliminated positions for which certain structural resources, such as sponsorship, are more of a factor in outcomes than they are at the entry and mid-levels.

Despite these limitations, this data set provides for a sound test of the hypotheses. It represents actual promotions of staff members including information on those positions from which individuals were promoted as well as those positions to which they were promoted. This is an improvement over past efforts in which salary levels were studied under the assumption that they represented the outcomes of promotion (Halby, 1979) or outcomes were examined without the ability to examine prior positions for those promoted (Stewart and Gudykunst, 1982).

Implications for theory

The intent of this study was 1) to extend Hodson's conceptualization (1983) of the structural dimensions of work as resources and vulnerabilities for workers to the process of promotion, and 2) to test the conceptualization within the organizational structure of work--at the
structural level most proximate to the individual, and therefore, argued to be most consequential for achievement (Baron and Bielby, 1980, 1984; Spilerman, 1986). Thus, this study tested the ability of women and men to utilize individual and structural resources to enhance their promotion outcomes within one organization.

This study was framed using Hodson's resource perspective because he endeavors to explain structuralism by grounding it in the organizational history of capital and labor. Rather than merely describing structural dimensions and then demonstrating their efficacy, he attempts to provide a theoretical rationale for the evolution of structure that moves beyond efficiency versus control perspectives. Efforts at the organizational level to identify the structural dimensions of consequence are numerous (Schein, 1971; Spilerman, 1977, 1986; Kanter, 1977; Halaby, 1979; Rosenbaum, 1979, 1984; Wolf and Fligstein, 1979; Gaertner, 1980; Ortiz, 1982; Skvoretz, 1984), and this prior work has provided important insights regarding the structural arrangement of work and the policies and practices that influence mobility. What is not explicit in this scholarship is an answer to a prior question: what determines the organizational structure? Underlying assumptions are rarely discussed.

"New structuralism" can be embraced by those who hold functional perspectives as well as those who hold control perspectives. For example, internal promotion can be conceptualized as an organizational means for efficiently staffing positions as well as a developmental program to enable the career growth of employees. Or, promotion can be viewed as a bureaucratic control mechanism to regulate the flow of workers and a strategy to appease workers with minor monetary awards. Promotion can be conceptualized as a means to encourage competition among employees and discourage collective action (Edwards, 1979). The arrangement of jobs within an organization, such as the simple and unitary structures described by Spilerman (1986), can be viewed as an efficient means of assigning wages to job and stratifying positions to enable employees to identify the skills and training they need to
move to positions of more functional worth. Those same structures can be perceived as efforts to balkanize workers, positions and rewards.

Researchers frame their studies based upon their assumptions regarding organizational structure. If structure is viewed as efficient, functional and essentially inevitable, the study is likely to describe the structure rather than to question its impact. Or the effort may be to look for disparate impact as a function of individual differences (for example, race, gender or age) rather than to question the role of the structure in the disparity. On the other hand, if structure is viewed as a means of control, the study is likely to measure the impact on individuals without considering the possibility that the structure may serve the individual.

Hodson's (1983) contribution is to advocate an empirical approach to these conflicting perspectives—an approach that contends that structure may serve as a resource or a vulnerability for employees and employers. Neither a control nor an efficiency perspective is sufficient for understanding the dynamics of the workplace. Hodson argues that the evolution of economic structures was influenced not only by profit motives and labor control but also by multiple organizational and environmental imperatives. Different motivations result in different styles of management, modes of control, and corporate structure. Thus, structure needs to be examined without a priori assumptions as to its impact.

This same logic has been applied in this study to the evolution of the administrative structure of higher education organizations. Both efficiency and control perspectives were traced in the historical development of higher education administration. Administrative structure was shown to benefit faculty and staff at the same time it acts as a control. It was argued that promotion is an important reward for administrators in higher education, and individual and structural resources relevant to outcomes of promotion were identified. Both individual and structural resources were measured in an attempt to discover whether arrangements of work or rules or practices determining promotion serve as resources or vulnerabilities to employees.
The findings are mixed. Several of the structural resources did not have statistically significant impact upon outcomes; on the other hand, prior work structure and gender did have a significant and negative impact on outcomes for certain groups—outcomes that are a function of the arrangement of work in this organization and the practices of decision makers who match persons and jobs. The resource perspective offers an explanation of structural dimensions that challenges the assumptions of investigators and broadens the scope of questions that are asked of the data. Thus, it is argued here that the application of the theoretical model of resources and vulnerabilities at the organizational level has the potential of moving new structuralism forward in its ability to understand the impact of structure upon individual attainment.

Implications for Future Research

This study indicates several avenues for further research to enhance understanding of the achievement of employees within organizations in general, and within higher education organizations specifically. Although the findings can be generalized only to the extent that other institutions match persons and jobs in similar ways and provide similar structural resources and vulnerabilities for promotion, the conceptualization of individual and structural resources offers a means of examining the arrangement of work and the processes governing hiring and promotion to determine whether they serve as resources or vulnerabilities for employees and employers.

A single institutional study represents an essential first step in examining the ability of individuals to use the individual and structural resources available to them to enhance their promotion outcomes. This study used primarily position-level variables to measure structural resources. Additional individual-level variables also have relevance for structural dimensions. For example, in an exploratory study of the career development patterns of higher education administrators, Andes (1986) added social psychological variables to organizational variables.
Studying the movement of pairs of women and men in similar job titles, Andes found women and men were more alike in subjective measures (for example, goal setting) than she did in objective measures (for example, institutional type). Goal setting for career advancement and perceptions of opportunity are individual variables that need to be examined as a function of the structure of work.

The contexts in which individuals work can be measured at multiple levels to provide more precise analyses of the impact of context upon individual outcomes. For example, the tasks of a job may influence mobility within an organization; thus, assessing the degree of firm-specific skills associated with particular positions might provide insight to mobility (Davis-Blake, 1986). Those positions that require a high degree of on-the-job training may serve employees in that the organization is interested in recouping its investment, and thus may provide promotion opportunities.

Or, there may be specific jobs or clusters of jobs within the structure of work that serve as a resource or a vulnerability for the mobility of incumbents (Gaertner, 1980; Baron, Davis-Blake, and Bielby, 1986). Job level analyses may have particular relevance for employees moving from non-administrative positions, such as those in this study. It seems likely that there are positions within these structures of work which are more conducive to movement into administrative structures than others. For example, perhaps entry-level clerical jobs in the skilled category provide access to mid-level administrative positions, or perhaps positions in computer operation or data entry can be used to move into skilled technical jobs. Identifying such positions as well as the persons who make the moves would enhance our understanding of mobility. Are certain jobs providing mobility by virtue of the content or location of the job? Or are persons promoted from these jobs by virtue of the individual resources they brought with them to the organization?

Similarly, there may be occupations that form subsystems that serve to enhance or constrain mobility within an organization (Osterman, 1984). Clusters of occupations may
characterize a professional or administrative specialty. Both functional specialization and administrative specialty differentiate the members of an administrative staff (Appendices A and B illustrate the wealth of positions and contexts that characterize the administration of a major research university). The breadth and diversity of skills, training, and experience required in administrative positions provides an opportunity to examine the mobility of administrative (line positions), professional (staff positions) and technical staff members within one organization. In addition to functional specialities, most academic organizations differentiate staff members by administrative units, such as academic administration, student services, business and financial services, and external affairs. There is some evidence that suggests that the patterns of movement of administrators differ by administrative specialty (Moore, 1983; Sagaria, 1988). Incumbency within specialities may serve as a resource or a vulnerability for employee mobility.

Further research is needed to understand the impact of the various contexts for employment within higher education organizations. A next step is to compare the arrangement of positions and the formal personnel practices operating at major public, research universities to discover what commonalities and particularities exist. Different types of higher education organizations need to be examined to determine whether resources and vulnerabilities for administrative mobility differ among types of colleges and universities and to begin to understand higher education organizations at a more aggregated level of analysis. Also comparative research is needed to begin to generalize the concept of resources and vulnerabilities across organizations. Multiple case studies of different types of organizations could provide insight to the structures of work and policies and practices which operate across organizations and those which may be unique.

**Implications for Policy**

Implicit in the effort to examine structural resources and vulnerabilities influencing promotion is the need to consider these dimensions for their policy implications. For example,
in the discussion of the role of sponsorship it was argued that sponsorship is an institutionalized practice for promotion in this setting. The possibility that sponsorship is acting to the detriment of minority groups members has serious implications for equal opportunity and affirmative action. The prevalence of the practice and its apparent advantage to hiring officials suggests that any change in this practice would require documentation that past practice has had negative consequences for certain groups. Further research in this area could provide the data necessary to evaluate or formulate policy regarding practices such as sponsorship.

Another finding of this study that has implications for policy is the power of prior position in explaining workplace outcomes. For institutions endeavoring to create opportunities that will enhance the mobility of women and minorities, this finding suggests that placement is crucial. If the point of entry has long term consequences, and if the nature of the position reflects upon the incumbent, then opportunities like internships or job rotations must be strategically chosen to enhance and not constrain the career advancement of women and minorities. This is especially important in higher education where positions have been earmarked for women and minorities (for example, positions created to provide programming, advising and counseling to women and minorities or positions in affirmative action and equal opportunity). More information is needed about the impact of such positions and whether they serve as resources or vulnerabilities to career progress.

Also deserving of further examination is the finding that in this setting more than one fourth of those promoted moved from non-administrative positions into administrative positions. A profile of the positions and the individuals successful in this kind of move could uncover important information for facilitating mobility across work structures. Additionally, the finding that work structures influence individual outcomes suggests the need for a closer examination of the array of jobs within organizations to ensure that titles, content and classification of jobs are meaningful.
Finally, the finding that gender is a powerful determinant of outcomes in promotion underscores the need for continued vigilance in institutional efforts to ensure equity for women. Discriminatory practices are exceedingly difficult to identify but the slow pace of women's advancement is readily apparent. Attending to the structural consequences of hierarchical organizations, such as Kanter's recommendations (1977) regarding increased opportunity, power and numbers, is crucial for progress. But it is a mistake to assume that structural changes alone will eliminate the disadvantage of being female.

**Conclusion**

The conceptualization of resources and vulnerabilities holds promise for expanding our understanding of the forces at work within organizations that influence outcomes for individuals. This conceptualization provides a framework for examining arrangements of work and the policies and practices governing hiring and promotions to determine their consequences, whether intended or unintended, for individuals within the organization.

This study addressed the determinants of promotion within a higher education organization in an effort to explain the disparity of advancement by gender. Although the study was successful in explaining nearly half of the variance in promotion outcomes, it was not successful in explaining why women are disadvantaged in the process. It was hoped that particular policies or practices or structural arrangements could be identified as contributing to the disparity. Perhaps some policy well-intentioned in design had unintended consequences for women or men. Within the limits of this research, no such factors were clearly identified.

Nonetheless, this study documented the price women paid for their gender in one higher education organization. To document negative consequences for being female is not unusual but this study removed many of the factors that are used to explain women's lack of advancement within organizations. The effects of education, experience, age, and most importantly, prior position were removed from the analyses. The findings of this study
underscore the importance of examining not only individual and structural resources but also the social and power relations that influence individual outcomes in the workplace.


Ohio State University. (February, 1977). *Classification and Compensation Program for Administrative and Professional Staff at The Ohio State University*. The Ohio State University, Columbus, OH.

Ohio State University. (1980). *Ohio State University Operations Manual*. The Ohio State University, Columbus, OH.


Sagaria, M. A. and Johnsrud, L. K. (1987b). Many are candidates, but few compete: The impact of internal position change of administrative and professional staff on white women and minorities. Columbus, OH: Department of Educational Policy and Leadership, The Ohio State University.


### Appendix A

**Representative Titles by Pay Range**

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<th>Pay Range</th>
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<td>Research Interviewer&lt;br&gt;Resident Manager</td>
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<td>Exhibit Preparator&lt;br&gt;Orientation Assistant&lt;br&gt;Radiation Safety Technician</td>
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<td>Language Instruction Aide&lt;br&gt;Pianist&lt;br&gt;Supervisor--Transportation and Messenger Services</td>
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<td>Supervisor--Line Service&lt;br&gt;University Contracts Aide&lt;br&gt;Assistant Program Coordinator</td>
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<td>Graphic illustrator&lt;br&gt;Manager--Admissions Processing&lt;br&gt;Statistician</td>
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<td>Administrative Associate 1&lt;br&gt;Manager--Public Services&lt;br&gt;Vocational Education Specialist</td>
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<td>Area Coordinator&lt;br&gt;Senior Program Associate&lt;br&gt;Systems Analyst 1</td>
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<td>Associate Director--Student Financial Aids&lt;br&gt;Special Assistant--Student Housing&lt;br&gt;Supervisor--Mapping Laboratory</td>
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<td>66</td>
<td>Manager--Staff Development&lt;br&gt;Technical Director, Energy Conservation&lt;br&gt;Director--Government Relations</td>
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</table>
67  Associate Director--Continuing Education
   Director--Planning and Program Development
   Senior Computer Specialist

68  Sponsored Program Development Officer 2
   University Registrar
   Director--Contracts Administration

69  Director--Residence and Dining
   Associate Executive Director--Programs
   Associate Director--Vocational Education

70  Director--Sponsored Programs Development
    University Treasurer
    Associate Vice President Physical Facilities

71  Associate Vice Provost for Student Affairs
    Executive Director--University Communications
    Director--Athletics
Appendix B

Administrative Areas Included in the Study

**Academic Colleges**

- University College
- College of Biological Sciences
- College of Social and Behavioral Sciences
- Regional Campuses
- College of Agriculture
- College of Home Economics
- College of Nursing
- College of Social Work
- College of Mathematical and Physical Sciences
- College of the Arts
- College of Humanities
- College of Education
- College of Administrative Science
- College of Engineering
- College of Law
- College of Pharmacy
- Graduate School

**Academic Administration**

- Office of Research and Graduate Studies
- Office of Agricultural Administration
- Office of Academic Affairs
  (For example, Minority Affairs, University Press, Instruction and Research
  Computer Center, International Student and Scholar Service, Learning Resources,
  Instructional Development and Evaluation, Conferences and Institutes, Continuing
  Education, and Military Science)

**Student Affairs**

- Office of Student Affairs
  (For example, Student Affairs Administration, Student Personnel Assistance
  Programs, University Registrar, Student Life, Student Housing Administration,
  Counseling and Consultation Services, University Health Service, Recreation and
  Intramural Activities, Office Of Disability Services, Student Financial Aids, and
  Environmental Health and Safety.)

**Residence and Dining Halls**

**Athletics**

**Business Administration**

- Office of the President
- Administrative Services
- Office of University Fiscal Affairs
- Office of Personnel Services
- Office of Business and Finance
- Services and Auxiliary Enterprises
  (For example, Food Facilities, Stores, Laundry, Meter Postage, Office Equipment
  Repair, Print Shop, Telephone, Transportation, Bookstore, Unions, Airport and
  Property Management.)

**External Affairs**

- Office of Communications and Development
  (For example, Alumni Services, Communication Services, University Publications,
  Community and Visitor Relations, and Development.)

**Admissions**
### Appendix C

#### Administrative & Professional Staff

1985 Pay Range Table

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