Career Paths and Career Success in the Early Career Stages of Male and Female MBAs

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This study tests hypotheses about the relations between gender, career paths, and career success in a sample of MBAs. Findings indicate that women in managerial careers did not differ from men on total promotions and career satisfaction but did experience lower salary increases, fewer management promotions, and lower hierarchical levels compared to men of similar education, age, experience, performance, and career paths. In addition, starting salaries, starting job levels, job mobility, line experience, and company seniority were found to affect one or more of the career success measures. The findings have implications for the locus of bias in gender-based differences in career experience. © 1991 Academic Press, Inc.

Workforce demographic trends indicating that more than 60% of all net additions to the U.S. workforce between now and 2000 will be women have given new urgency to the quest for understanding male–female differences in career experience and development. There is particular concern about the successful integration of more women into managerial ranks of organizations where they have traditionally been underrepresented (Moore, 1986; Reskin, 1984; DiPrete & Soule, 1988). Conceptual writings on gender differences in career success and some empirical research have generally indicated that women compare unfavorably with men on salary treatment (Reder, 1978; Strober, 1982; Devanna, 1984; Olson & Frieze, 1987) and on upward mobility (Lewis, 1986a; DiPrete & Soule, 1988; Cannings, 1988; Grandjean, 1981). While there is some degree of consensus among writers in the field that women in management are underpaid and underrepresented in the middle and top levels of organizations compared to their male counterparts, the quest to explain *why* these differences exist continues. This paper reports on a test of the

possibility that male–female gaps in career success might be attributable to gender differences in career paths.

Various rationales have been offered for why women in managerial careers generally have not achieved to the same level as men. One set of explanations centers on human-capital reasons such as less education, seniority, training, and experience (Becker, 1964; Brown, 1979; Hauser, 1980; Mincer & Pulachek, 1974). Human capital explanations suggest that gender differences in career success can be remedied by improving the qualifications of women to match levels of the men with whom they compete for promotions and pay increases. Following this reasoning, women and men with comparable education, training, and experience would achieve similar levels of career success.

A second explanation focuses on higher levels of work–family conflict and career interruptions for women (Rothwell, 1986). The demands of marriage, housework, child care, and pregnancies are much greater in general for women than for men with families (Strober, 1982). These demands affect the career success of managerial women primarily through their effect on variables such as lower seniority due to career interruptions (Olson & Frieze, 1987), spousal support for advancement, and time and energy (Hochschild, 1989). Explanations related to women's family responsibilities suggest that relieving the tension between work and family demands will clear barriers to women's career success.

While human-capital and work–family role conflict are undoubtedly relevant factors, empirical studies of gender differences in careers have indicated that these traditional explanations do not fully account for gender differences in career success. For example, Stewart and Gudykunst (1982) and Cannings (1988) found differences in upward mobility success even after human-capital investments were controlled, and Tucker (1985) has shown that gender differences in career outcomes cannot be fully accounted for by work–family conflict issues.

A third set of explanations proceed from the premise that career success differences between men and women are rooted in various forms of discrimination against women by their employers and their management (Larwood & Gattiker, 1985; Day & Stogdill, 1972). Prominent in this vanguard is the claim that stereotypical views and prejudice against women in management are often manifested in involuntary differences in career paths such as inability of women to gain access to line jobs and job-class segregation (Martin, Harrison, & DiNitto, 1983; Larwood, Gutek, & Gattiker, 1984). The potential importance of career paths to career success in general, and to gender-based success differences in particular, is also suggested by internal labor market research (e.g., Baron, Davis-Blake, & Bielby, 1986; DiPrete, 1987) and by research comparing careers of men and women (Larwood & Gattiker, 1987; Kanter, 1977; Tucker, 1985; Stamp, 1986; Markam, South, Bonjean, & Corder, 1985).

Four dimensions of career path have been suggested by previous research to be particularly important to career development and success and especially to promotion frequency and salary increases. Line versus staff job assignments is one important dimension. Salaries for line assignments are generally higher than those for staff assignments at comparable hierarchical levels (Gutteridge, 1973; Pfeffer, 1977). Also, line positions have been shown to lead to swifter promotions and larger salary increases (Larwood & Gattiker, 1987; DePasquale & Lange, 1971). Second, organizational mobility, defined as single versus multiple-employer careers, also has been shown to affect career success (Martin et al., 1983; Gutteridge, 1973). A multiple-employer career path can lead to higher salaries and swifter promotion rates since changing employers is a tactic often used to achieve an increase in salary or a promotion that might not be forthcoming within an organization.

Third, the degree of functional specialization has been found to influence career success (Gutteridge, 1973). There has recently been a trend toward more diversified career paths, and cross-functional experience has been found to lead to higher salaries for MBAs (Gutteridge, 1973). Also, Rynes and Rosen (1983) found that MBAs view changes in job function as an important factor in promotability. Finally, job mobility tends to increase career success when job changes are interpreted as developing relevant experience (Markam et al., 1985). Moreover, past a certain point, time in current grade or in a particular job has been shown to indicate poor promotion prospects (Kanter, 1977; Sandefur, 1981).

Very little research has focused specifically on career path comparisons between men and women. Several researchers have noted that job structures of organizations are often highly segregated such that women are concentrated in career ladders of relatively low status and pay (Kanter, 1977; Stamp, 1986; Kessler-Harris, 1990). Larwood and Gattiker studied career paths of 215 men and women defined as successful by personnel administrators in their respective oganizations. They concluded that career paths of successful women often differ from those of successful men, and that the career paths of successful women are less predictable than those of men.

Previous research has also shown that in general women have been employed less frequently than men in line positions. Olson and Frieze (1985) and Olson, Good, and Frieze (1987) found that women MBAs are more likely than men to be found in staff positions. Gender differences in line and staff assignments have often been used to explain overall gender differences in pay and promotion, and women have been cautioned to avoid staff jobs (Perlmutter and Alexander, 1978).

Research addressing gender comparisons on employer mobility has produced inconsistent results. Some research suggests that women are more inclined to have single-employer careers (Flanders & Anderson, 1973;

Hennig & Jardim, 1977). Alternatively, Sehgal (1984) reviews data indicating that organizational mobility is closely linked with occupational stability, and that the rate at which women change occupations has increased substantially since the 1960s, while that of men has remained stable. Likewise, DePasquale and Lange (1971) found that men and women were equally likely to move from job to job and from organization to organization, especially in the early years of their careers.

The research reviewed above acknowledges the relevance of career paths to career success and suggests the possibility of gender differences in career paths. However, previous research has not addressed the variables of gender, career success, and career paths in combination. Therefore, the objective of this study was to examine explicitly the possibility that gender differences in career success may be due to differences in certain dimensions of career paths between men and women. Our reasoning was that if particular composites of these career path dimensions create a faster track to salary increases and promotions than other composites, within a given industry, then people with similar career paths should achieve at similar rates. Women who follow the career paths of traditionally successful men then ought to achieve at the same rate as comparable men. Women on slower career paths should achieve at lower rates, comparable to men on the same slower paths. The net difference in career success between women and men might be driven by differences in the types of career paths that men and women typically follow.

In addition to the salary treatment and upward mobility dimensions of career success, we also wanted to examine personal career satisfaction. This was of interest because it acknowledges the importance of individual perceptions in defining career success and because it responds to calls for the use of more subjective and contextual measures of career success (Stewart, 1990; Bailyn, 1989; Collin & Young, 1986). This variable was also of interest because the question of whether or not there are gender differences in work-related satisfaction continues to be controversial. As reviewed by Mottaz (1986), previous research has been inconsistent with the number of studies not finding gender differences roughly equal to that of the number finding significant differences. We reasoned that looking at this relation with career paths controlled might shed further light on this controversy. Based on the above, the following hypotheses were tested:

Hypothesis 1. Women in managerial careers will experience lower levels of salary progression and career satisfaction than men with comparable levels of education, performance, age, and experience.

Hypothesis 2. Women in managerial careers will experience lower rates of upward mobility than men with similar education, performance, age, and experience, and who work for organizations of similar size and rates of vacancy.

Hypothesis 3. Career paths of managers will affect their career success. Specifically, career success will be enhanced by line versus staff assignments, higher organizational mobility, greater functional diversity, and higher job mobility (shorter average job tenure).

Hypothesis 4. Gender differences in career salary progression and satisfaction among those in managerial careers will be attributable to differences in career paths.

Hypothesis 5. Gender differences in upward mobility among those in managerial careers will be attributable to differences in career paths.

METHOD

Sample and Data Collection

Data were collected from a sample of 502 MBAs, 125 female respondents and 377 male respondents. Only 22 of the respondents were nonwhite. All were alumni from the same business school which frequently has been ranked among the top 10 in the country. Letters and questionnaires were sent to 1300 alumni representing all graduates for whom the school had a complete demographic file for the 10-year period of 1976–1986. Respondents were promised a copy of the results. A total of 539 replies were received (41.5%). Of those, 37 were not used in the study for various reasons, the most prevalent being entrepreneurial or interrupted career paths. Respondents and nonrespondents were compared on the available measures of age, years since graduation, ethnicity, gender, and geographic location. The only significant difference was that the response rate for the more recent graduates was higher than that of those from earlier years. One effect of this difference is to give a more contemporary view of the male–female comparison on career experience. Another is to bias the results toward the establishment stage of career development.

A comparison of means for descriptive data on the respondents and their organizations, indicated that men and women in the sample were very similar on years since graduation (4.78 for men versus 4.53 for women) and job performance (4.14 versus 4.13). Men had slightly more seniority with the present employer (3.65 versus 3.23); however, this difference was not statistically significant. The only significant difference in individual-level data was in age where men were slightly older (33.05 versus 30.94, $p < .001$). On the organizational measures, men and women worked for firms of similar size (roughly 29,000 people) and of similar rates of management vacancies (3.21 versus 3.28). However, women tended to work in organizations with slightly flatter hierarchies (6.33 levels versus 5.66, $p < .05$). The means for women and men were virtually identical on the four career path variables (line/staff job assignments, number of jobs, number of employers, and average job tenure).

The measures of career success indicated that men had experienced

somewhat more favorable salary and advancement than the women. Men received significantly higher average annual pay increases ($1,951 versus $1,160, $t(229.6) = 2.14$, $p < .05$), had significantly more management promotions (.77 versus .33, $t(297) = 4.76$, $p < .001$), and were at significantly higher organization levels (.31 versus .24, $t(197.2) = 2.46$, $p < .05$). The degrees of freedom reported on t tests here and elsewhere in the manuscript are estimated in accordance with the Satterhwaite (1946) procedure for approximation. Variances for men and women were not equal and therefore t statistics are given for the unequal variance assumption. This requires that the estimated degrees of freedom be used (SAS User's Guide: Statistics, 5th edition page 797). The data also showed that the roughly $2,000 difference in starting salaries (31,206 versus 29,474) grew to $11,000 (55,891 versus 44,813) over the average of 4–5 years of the subjects career addressed in the study. Men had slightly higher total promotions (1.70 versus 1.37) and career satisfaction (5.13 versus 4.94); however, these differences were not significant.

Measures

Individual and organizational variables. Demographic data including age, gender, and the year of graduation were taken from the alumni office files. Total years since graduation were used as a measure of work experience. The career data were obtained using a five page questionnaire organized into two parts. The first part asked a series of questions about the individual and his/her current employer. The second part asked the respondent to provide a chronology of positions held since receiving the MBA and relevant data on each. The information specifically requested in the chronology included the year starting and ending the position, starting and ending salaries of each position, job titles, department, industry, changes of employer, hierarchical level, and job duties.

To obtain a measure of job performance, respondents were asked to provide formal ratings received for their last two rating periods. In order to standardize the response format, subjects were asked to circle the rating that came closest to the one that she/he had actually received using a 5-point response scale. The scale anchors were defined as follows: 1 = poor, 2 = acceptable, 3 = fully satisfactory, 4 = good, 5 = outstanding.

The organization measures obtained included size (approximate number of employees), levels in the hierarchy (distinct levels of authority where 1 = supervisor level and n = president), and perceived vacancy rates. Perceived vacancy rates were operationalized using a 7-point Likert-type scale. Respondents were asked to rate the frequency of managerial vacancies during their tenure with their current organization. Scale anchors ranged from low (1) to high (7).

Career Paths. In operationalizing career paths, we were first concerned with the aspect of career continuity which has often been identified as a

potential career path difference between women and men (Tucker, 1985; Rothwell, 1986). As noted previously, this was controlled by excluding respondents with interrupted careers from the data analysis. Beyond this, career path was treated here as a constellation of the four dimensions identified earlier: line versus staff job assignments, number of employers, degree of functional specialization, and job mobility. These dimensions are suitable for analysis of career paths with cross-sectional, multiemployer respondent groups. Each was operationalized in two levels. A career in which 50% or more of the jobs held were line jobs was considered a predominantly line career. Number of employers was either single or multiple employers. The degree of functional specialization was treated as single or multiple function and job mobility was handled as long (average tenure of more than 1.5 years) or short job tenure. The 18 month cut-off receives some support from Markam et al. (1985) who utilized the same break point to define employees with high versus low probabilities of promotion.

Information on the career path variables was obtained from the career chronology. A job was classified as line if it was in the chain of command of the mainstream, mission-connected activities of the organization. Departmentally, this usually meant a position in either operations, marketing, or finance, but each job was analyzed within its specific industry and job description context. For example, a job as chief accountant was considered line in a public accounting firm but not in a manufacturing company; a production control job in most manufacturing environments represents a staff position within a mainstream department.

Career success. Three measures of career success were used. The first, salary progression, was defined as the average annual pay increase in 1976 dollars (the year of first graduation). Price deflator factors for each year since 1976 were used to convert both starting and current salaries to 1976 dollars. The dollar difference in salaries between starting and current pay was then computed and this figure was divided by the years since graduation to produce the average pay increase in dollars.

Upward mobility was measured by the total number of promotions, the total number of management promotions (i.e., promotions from one management level to a higher one), and the current management level as a percentage of total levels in the organization's management chain of command (current level/total levels). Data for promotions were obtained from the research team's analysis of the career chronologies. The criteria for assessing whether or not a job change constituted a promotion were: (1) whether or not there was an increase in the scope of responsibility or authority, (2) whether or not a change of level was indicated, (3) whether or not there was an increase in pay, and (4) the comparison of job titles. One of the authors and a doctoral student independently rated the number of promotions from a reading of the chronologies. The interrater agree-

ment was 85%. Cases of disagreement were reviewed by the author and a number of errors were detected and corrected creating 90% agreement. The remaining cases were referred to a faculty colleague for analysis and changes were made to reflect the number of promotions indicated by two of the three reviewers.

Management level was taken from the subject's response to two items in the first part of the questionnaire. The first asked respondents to indicate their own hierarchical level and the second asked for the total number of levels in the management chain of command. It was explained that a zero meant nonmanagement, a one meant supervisor level, and so on. Current level as well as the level for each previous position held was also requested on the career chronology form. The measure of level used in the data analysis was the ratio of current level to total hierarchical levels. This measure was used in preference to the current level alone, because it adjusts for differences in heights among authority structures in different organizations.

The third measure of career success was career satisfaction. This was measured by a two-item, 7-point Likert-type scale used previously by Nkomo and Cox (1989). The items were originally developed by Beehr, Taber, and Walsh (1980). The first item asked subjects to rate the extent to which their current position was the type of job they wanted at this point in their careers and the second asked them to indicate their level of satisfaction with career progress. A coefficient α reliability of .65 was obtained for the present data.

Analysis

The five hypotheses were tested with a series of multiple regression analyses using the REG program of SAS. Two general models were used in correspondence to the type of dependent measure. The first model, labeled the "full-career model," focused on measures of experience over the entire career since earning the MBA. This model treated salary progression and career satisfaction as dependent variables with job performance, age, years of work experience, starting salary, gender, and career paths as predictor variables. The second model, labeled the "current-employer model," focused on career experience with the employer at the time of the study. In this model, total promotions, management promotions, and management level were dependent variables and job performance, age, company seniority, management vacancy rates, organization size, gender, career paths, and industry were predictor variables. In correspondence to our hypotheses, each of the models was run with and without the career path variable(s).

The distinction between full career and current employer in designing the models was made for several reasons. First, previous research and theory has suggested that organization specific data is especially relevant

to models of upward mobility (Anderson, Milovitch, & Tsui, 1981; Nkomo & Cox, 1989, 1990). Therefore several of our measures are organization specific. However, an accommodation had to be made for the fact that many of the respondents had worked for more than one organization. For example, rates of vacancy are critical to rates of promotion, but vary among organizations. A respondent who has worked for three employers may have experienced three different rates of vacancy, in which case specifying a rate of vacancy for the entire career is difficult and imprecise. The same applies to other similar variables that we wished to include such as industry and organization size. We addressed this concern by using the organization-specific variables in a model that focused on only one employer for each respondent. A second reason for the difference in models was that two of the career success measures, salary progression and career satisfaction, were specifically designed to address the entire career. We therefore wanted as many of the predictor variables as possible in those models to also address the entire career. This meant that the organization-specific variables could not be used in the full-career models.

The analysis of gender effects on salary progression and career satisfaction (hypothesis 1) was tested using the full-career model without career paths. A hierarchical regression was run for each dependent variable in which job performance, age, work experience, starting salary were entered on the first step and gender was entered on the second step. An F statistic was computed on the change in R^2 produced by the entrance of gender. The starting salary variable was included because our preliminary data analysis revealed a significant negative correlation for the entire sample between starting pay and pay increases. We therefore wanted to control this variable so as to rule out the possibility that any difference in salary progression might be due to disparities in starting salaries between men and women.

The analysis of gender effects on the upward mobility measures (hypothesis 2) was accomplished by the current-employer model without career paths. Separate models were run for total promotions, management promotions, and management level. In each model job performance, age, company seniority, rates of management job vacancies, and organization size were entered on the first step, and gender was entered on the second step. In this analysis, company seniority was used in place of years since graduation in order to reflect a current-employer measure of experience. Previous research on intraorganizational upward mobility has also demonstrated the potential importance of company seniority to promotion rates (Stewart & Gudykunst, 1982; Nkomo & Cox, 1990).

The relations of career paths to career success (hypothesis 3) and of career paths to gender differences in career success (hypotheses 4 and 5) were examined by including career paths in the regression models. The full-career model was used for the salary progression and career satisfac-

tion dependent measures, and the current-employer model was used for the three upward mobility measures. Again, hierarchical regression analysis was employed. In the full-career analysis, performance, age, experience, and starting salary were entered on the first step, the set of four career path measures were entered on the second step, and gender was entered on the third step. The current-employer analysis entered the same variables used in the analysis for hypothesis 2 as the first step. The second step added four career path variables, the third added industry, and the fourth added gender. The four career path variables in this analysis were line/staff, functional specialization, job tenure, and starting level. All of these were operationalized as measures for the current employer only. The number of employers variable used in the full-career model was not relevant for this analysis. Two additional control variables used here were starting level and industry. Previous research has shown both of these variables to be potentially relevant to career success differences among MBAs (Olson & Frieze, 1987; Reder, 1978). Starting level was defined as the hierarchical level of the first job with the employer divided by the total levels in the organization hierarchy. Industry was coded 1–10 and contained the following categories: high-tech manufacturing, other manufacturing, public sector, financial services, medical/health, retail/ wholesale and advertising, consulting, transportation and utilities, information services, all others. This variable was treated in the regression models by creating nine dummy variables each of which had values of either 0 (not this industry) or 1 (yes, this industry). It should be noted that starting level and industry were not used in the hypothesis 1 analysis because they are difficult variables to operationalize in a full career (multiple employer) context.

RESULTS

Gender Effects on Career Success

Hypothesis 1 predicted that women would experience lower levels of salary increases and career satisfaction than men of similar education, performance, age, and experience. The results of the hierarchical regression analyses, shown in the full-career model without career paths in Table 1, reveal that women did experience lower salary progression than men of comparable education, performance, age, and experience ($F(1, 417)$ = 7.39, $p < .01$). No significant difference between men and women was found for the career satisfaction variable ($F(1, 417) = 2.0, p > .05$).

As previously mentioned, the industry variable was excluded from this model because it varied for many people over the course of their career. However, we were concerned that there might be differences in industry between men and women which might account for the salary differences. To address this concern, we performed a hierarchical regression in which

TABLE 1
Prediction of Salary Progression and Satisfaction Using Full Career Model without and with Career Paths

Predictors	Salary progression ($N = 423$)						Satisfaction ($N = 423$)					
				Change						Change		
	B^a	R^2	Adj.R^2	R^2	Adj.R^2	F	B	R^2	Adj.R^2	R^2	Adj.R^2	F
Full career model without career path variables												
Performance	-.09						.01					
Age	-.02						-.18**					
Experience	.01						.14*					
Starting salary	-.12*						.09					
Step one		.022	.013					.026	.016			
Gender	-.13**						-.06					
Step two		.039	.027	.017	.014	7.39**		.029	.017	.003	.001	2.00
Full career model with career path variables												
Step one		.022	0.13					.026	.016			
Line/staff	.08						.12*					
No. of Employers	.04						.05					
No. of Functions	-.01						.05					
Average job tenure	-.03						-.09					
Step two		.031	.012	.009	-.001	3.91*		.055	.036	.030	.021	13.04**
Gender	-.13**						-.05					
Step three		.047	.026	.016	.014	6.96**		.057	.037	.002	.000	1.22

^{a} Standardized β weights for the full models are reported.
* $p < .05$.
** $p < .01$.

the respondent's current salary was the dependent variable. Job perfor-
mance, age, work experience, management level, and industry were en-
tered on the first step and gender was entered on the second step. This
analysis revealed that women had significantly lower current salaries than
men when controlling for industry along with the other four variables
($F(1, 402) = 6.31, p < .05$).

Hypothesis 2 predicted differences unfavorable to women in measures
of upward mobility. The current-employer model without career paths
shown in Table 2 indicated that women did not differ significantly from
men on total promotions ($F(1, 443) = 1.18, p > .05$), but had significantly
fewer management promotions ($F(1, 392) = 8.0, p < .01$). In addition,
the measure of management level (i.e., ratio of respondent's level to the
total levels in the management hierarchy) was marginally significant ($F(1,
419) = 3.81, p < .06$).

One final point relative to hypotheses 1 and 2 is that the regression
coefficients for gender in Tables 1 and 2 show a negative effect of being
female for all five of the measures of career success. Although not all of
these coefficients were significant, the consistency of the negative sign is
a further indicator that being female tended to have a depressing effect
on career success. In sum, the data indicate that women in the sample
experienced somewhat lower levels of career success than men of com-
parable education, performance, age, and experience.

Effects of Career Paths

Hypothsis 3 predicted that career paths would have a significant effect
on career success, and specifically that persons with career paths featuring
line job assignments, multiple employers, multiple functions, and high
job mobility would experience better success than persons on career paths
with the opposite characteristics. Results on this hypothesis are shown in
Table 1 (full-career model with career paths) and Table 3 (current-em-
ployer model with career paths).

The Table 1 data show that the set of four career-path dimensions
collectively made a statistically significant contribution to the explained
variance of salary progression ($F(1, 414) = 3.91, p < .05$) and of career
satisfaction ($F(1, 413) = 13.04, p < .01$). However, examination of the
adjusted R^2 statistics indicates that the variance explained by career paths
was actually zero when adjusted for shrinkage. In addition, when analyzed
individually, the β coefficients show that although the signs for all com-
ponents are in the predicted direction, the only significant result obtained
was on the positive impact of line experience on career satisfaction ($t(9,
413) = 2.42, p < .05$).

The Table 3 data show that career paths made a somewhat stronger
impact on the upward mobility measures of success in the current employer
model. Collectively, the four career-path dimensions made significant con-

TABLE 2
Current Employer Model without Career Paths

	Dependent variables																	
	Total promotions (n = 450)						Management promotions (n = 400)						Management level (n = 426)					
				Change						Change						Change		
Predictors	β[a]	R^2	Adj.R^2	R^2	Adj.R^2	F	β	R^2	Adj.R^2	R^2	Adj.R^2	F	β	R^2	Adj.R^2	R^2	Adj.R^2	F
Performance	.04						.01						.07					
Age	.01						.05						.19***					
Seniority	.45***						.25***						.11*					
Vacancy	.07						.02						.01					
Organization size	.10*						.07						-.18***					
Step one		.249	.241					.100	.088					.093	.082			
Gender	-.05						-.14*						-.09[b]					
Step two		.251	.241	.002	.000	1.18		.118	.104	.018	.016	8.00**		.101	.088	.008	.006	3.81[b]

[a] Standardized β, weights for the full model are reported.
[b] $p < .06$.
* $p < .05$.
** $p < .01$.
*** $p < .001$.

TABLE 3
Current Employer Model with Career Paths

	Dependent variables																	
	Total promotions (n = 421)			Change			Management promotions (n = 374)			Change			Management level (n = 408)			Change		
Predictors	β[a]	R^2	Adj.R^2	R^2	Adj.R^2	F	β	R^2	Adj.R^2	R^2	Adj.R^2	F	β	R^2	Adj.R^2	R^2	Adj.R^2	F
Performance	.02						.02						.05					
Age	.03						.05						.01					
Seniority	.52***						.32***						.40***					
Vacancy	.02						−.02						.04					
Organization size	.06						.07						−.12**					
Step one		.249	.241					.100	.088					.093	.083			
Career path																		
Starting level	−.04						.13*						.75***					
Line/staff	−.07						.06						.06[b]					
No functions	.02						.04						.06					
Average job tenure	−.19***						−.13*						−.23***					
Step two		.276	.260	.027	.019	15.0***		.133	.111	.033	.023	14.35***		.598	.588	.505	.505	.505*
Gender	−.05						−.15**						−.07*					
Step three		.279	.261	.003	.001	1.67		.154	.131	.021	.020	9.13**		.603	.593	.005	.005	5.55*

[a] Standardized β, weights for the full model are reported.
[b] $p < .06$.
* $p < .05$.
** $p < .01$.
*** $p < .001$.

tributions to total promotions ($F(1, 410) = 15.00, p < .001$), management promotions ($F(1, 363) = 14.35, p < .001$), and management level ($F(1, 398) = 505, p < .001$). When examined individually, the significant career-path dimensions were starting level, line/staff, and average job tenure. Not surprisingly, starting level had a significant effect on current management level ($t(10, 397) = 21.65, p < .001$). It was also significant for management promotions ($t(10, 363) = 2.52, p < .05$). Line job experience had a marginally significant positive effect on management level ($t(10, 397) = 1.93, p < .06$). Average job tenure had a significant negative effect on all three dependent measures ($t(10, 410) = -3.59, p < .001$ for total promotions; $t = -2.11, p < .05$ for management promotions; $t = -5.66, p < .001$ for management level). It should be noted that the negative sign for the job tenure variable is consistent with our hypothesis since high job tenure indicates low job mobility and vice versa. Finally, company seniority was a highly significant predictor of all three upward mobility variables. More senior respondents had experienced more total promotions ($t = 9.03, p < .001$), more management promotions ($t = 4.85, p < .001$), and were at higher organizational levels ($t = 8.97, p < .001$).

In summary, with regard to our original four dimensions of career paths, no support was found for a positive effect of organizational mobility or multiple job functions. There was some support for a positive effect of line versus staff career paths and strong support for a positive effect of job mobility on measures of upward mobility. In addition, both starting level and company seniority had a major impact on career advancement.

Hypotheses 4 and 5 predicted that any differences in the success measures not accounted for by the previous control variables would be due to gender differences in the career path dimensions. As noted earlier, a comparison of means indicated that men and women did not differ on the four primary measures of career paths. In order to get a more sophisticated picture of the gender comparison on types of career paths, the four variables were combined into 16 configurations representing all possible combinations of the four dimensions each in one of the two levels as previously explained. Table 4 shows that the distribution of career paths was similar for men and women. A χ^2 test revealed no significant differences based on gender.

In order to determine whether gender differences in career success would remain after controlling for career path differences, the hierarchical regression models including career path configurations were used. The results of these analyses appear in Tables 1 and 3. Table 1 shows that salary growth for women was still significantly smaller than for men even after controlling for performance, age, experience, starting salary, and career paths ($F(1, 413) = 6.96, p < .01$). There was no significant dif-

TABLE 4
Description and Frequency of Career Paths of MBAs

	Path definition				Gender breakdown	
	Line/staff	Number of employers	Number of functional areas	Average job tenure	% of Men	% of Women
1.	Line	Single	Single	Short	7.9	8.9
2.	Line	Single	Single	Long	15.3	15.3
3.	Line	Single	Multiple	Short	7.4	5.6
4.	Line	Single	Multiple	Long	4.6	2.4
5.	Line	Multiple	Single	Short	3.5	4.8
6.	Line	Multiple	Single	Long	2.2	3.2
7.	Line	Multiple	Multiple	Short	7.6	9.7
8.	Line	Multiple	Multiple	Long	1.1	0
9.	Staff	Single	Single	Short	11.7	16.1
10.	Staff	Single	Single	Long	9.5	6.4
11.	Staff	Single	Multiple	Short	9.3	7.3
12.	Staff	Single	Multiple	Long	3.8	2.4
13.	Staff	Multiple	Single	Short	5.4	4.0
14.	Staff	Multiple	Single	Long	1.4	2.4
15.	Staff	Multiple	Multiple	Short	6.0	7.3
16.	Staff	Multiple	Multiple	Long	3.3	4.0

ference between men and women on career satisfaction ($F(1, 413) = 1.22$, $p > .05$).

As previously explained, the analysis for hypotheses 4 and 5 were run with industry included. However, the results for career paths and for gender were unaffected by the inclusion/exclusion of industry codes. Since the inclusion of industry would have consumed many degrees of freedom and unnecessarily complicated the presentation of the data, it was not included in the Table 3 results.

Table 3 shows that even when the career path variables were added to the previous control variables, women still had significantly fewer management promotions ($F(1, 374) = 9.13, p < .01$) and were at significantly lower management levels ($F(1, 398) = 5.55, p < .05$). Results on the total promotions variable revealed no significant differences between men and women ($F(1, 402) = 1.67, p > .05$).

DISCUSSION

Our findings on the effect of career paths on career success generally support the previous findings of the importance of line job experience and high job mobility, but are not supportive of research suggesting a positive influence of organizational mobility and functional diversification. Particularly with regard to the upward mobility indicators, respondents with high job mobility (less than 18 months per job) and with line experience tended to experience somewhat better career success. However, changing employers and having experience in more than one functional area did not affect the success measures. These latter two results may be due to the fact that members of our sample were primarily at the early career stages. The benefit of cross-functional experience may not be realized until one has enough experience to be considered for positions at the general manager level and above. Therefore, while multiple-function career paths do not appear to impact on career success in the early career stages, we do not conclude that functional specialization and diversification are equally useful over the span of an entire career.

Starting level and company seniority were also significant with regard to the upward mobility measures of career success. The finding that starting level is important to later success in advancement is consistent with the research of Hall (1976) and of Schein (1978) on the importance of first jobs to ultimate career success. Previous research has shown that differences in upward mobility and hierarchical positions in the early stages of managerial careers have a great impact on later stages (Tucker, 1985; Rosenbaum, 1984; Wolf & Fligstein, 1979; Berlew & Hall, 1966). This result may have implications for MBAs seeking to rank criteria to make first-job decisions. The level of the entry job may be quite important and deserve a high priority in such decisions.

The finding that company seniority was a major factor in explicating

differences in advancement measures is also consistent with previous research (Nkomo & Cox, 1990; Stewart & Gudykunst, 1982).

The results in this study have implications for what Auster (1989) has called the "locus of bias," a term referring to identifying where and how gender differentiations occur in organizational processes. To the extent that women experienced lower salary progression and upward mobility despite similar career paths, performance and education, our results indicate that some bias occurs in the reward allocation processes themselves as opposed to antecedent or indirect processes such as starting job assignments or an emphasis on promotion criteria which tend to disadvantage women. Our findings imply that some gender bias does occur in the allocation of raises and promotions, a finding consistent with that of Drazin and Auster (1987). However, the amount of variance in the career success measures which is potentially attributable directly to gender was very small (in the range of 1–3%). Given that the means reported earlier reflected rather sizable differences in salary and advancement between men and women, our data indicate that the locus of bias occurs primarily indirectly. Specifically, our data suggest that women are disadvantaged compared to men in career experience due to systematic gender-related differences in starting salaries, starting job levels, and company seniority. Each of these will be briefly discussed.

The data in Table 1 showed that starting salaries had a significant effect on average pay increases ($B = -.12, p < .05$). The negative sign of the coefficient suggests that women may actually have been advantaged in salary increases by virtue of their lower starting salaries. However a closer look at the data revealed that while the correlation between starting salary and average increases was negative for both men and women it was much more so for women ($-.402$ compared to $-.126$ for men). We performed the χ^2 test recommended by Arnold (1982) for testing for significant differences between group correlations and found that this difference was indeed significant ($\chi^2 = 11.5, p < .001$). Therefore, in this sample, women not only received lower starting salaries but women who did receive relatively high starting salaries were more likely than men to subsequently receive lower pay increases.

Our data also indicated that starting level was a significant predictor of the number of management promotions and the hierarchical level obtained (Table 3). Subsequent analysis showed that women had a mean starting level of .141 (where 0 was nonmanagement) compared to .216 for men. This difference was significant ($t(335) = 2.43, p < .05$). Therefore, the lower upward movement for women may have been partly due to differences between men and women in starting job levels.

Given the importance found of starting level and starting salary to subsequent career success, additional research about gender differences in the offers MBAs receive, as well as in the criteria that MBAs use to

evaluate offers, is needed. For example, some research has shown that men have higher salary expectations and higher salary standards than women (Tromski and Subich, 1990; Subich et al., 1989; Summers, 1988) and that men are less likely to accept a salary offer that is below average for a particular occupation (Tromski and Subich, 1990). Gender differences in salary expectations and salary standards may lead women to accept lower salary offers than men would accept, both at the start and throughout the course of their careers.

The third finding which may have indirect implications for gender differences in career success is that company seniority was a significant predictor of all three of the upward mobility measures. Women may be disadvantaged by emphasis on this criterion because they tend to have somewhat lower seniority profiles than men in management and professional jobs (Jablin, 1980). As stated earlier, men had slightly more company seniority than women in this sample although the difference was not significant ($t(248) = 1.65$, $p > .05$). In addition to the impact of the historical exclusion of women from managerial jobs, the accumulation of seniority is also affected by career interruptions. Our data suggest that anyone who interrupts her/his career is likely to be disadvantaged in obtaining promotion, and this may affect women disproportionately to men because they bear children and continue to take a larger responsibility for the rearing of young children. Thus, although the impact of seniority differences was minimized in this study by excluding persons with interrupted careers, an emphasis on seniority in making promotion decisions is likely to disadvantage women in less controlled settings.

The fact that there were small but significant gender differences in three of the five career success measures and the overall pattern of gender-related differences observed in this study are especially interesting in light of the composition of our sample. Gender differences in ability, career commitment, and education were minimized by the selectivity of our sample; all were contemporaries from the same top business school, all with the same graduate degree. None of the women or men in this sample had an interrupted career after graduation and job performance ratings were equal. The presence of a number of gender-related differences in such an elite cohort is troubling and suggests that organizations must intensify efforts to identify and remove gender-related barriers to career achievement.

Finally, we will address possible reasons for the fact that the four original career path dimensions addressed in our hypotheses explained a comparatively small amount of variance in the career success measures and had little effect on the gender–success relations. One possibility is that differences in career success may be less attributable to career path differences among MBAs than among less well-educated work populations. For example, much of the prior discussion of career ladder differences

between men and women has focused on the concentration of women in secretarial and clerical jobs, occupational categories where MBAs are unlikely to be placed.

An alternative interpretation is that the measurements of career paths used here may have been inadequate to capture the true differences. Perhaps there is a need for different, more refined definitions of career paths, which focus more on discerning the quality of experiences within categories of career positions and jobs. For example, perhaps the traditional emphasis on line experience should be replaced with measures of the organizational priority of product/client or geographic areas for which male and female managers have responsibility.

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