

## Women's Entry into Management: Trends in Earnings, Authority, and Values among Salaried Managers

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This paper examines whether the dramatic increase in women's representation among managers between 1970 and 1988 was real or was simply a case of women being given managerial titles but not commensurate pay or supervisory responsibility. Earnings and authority differentials between male and female managers are analyzed with data from three sources for this period. The results indicate that the sex gap in earnings among managers narrowed during this period, while the gap in authority remained constant. Thus, women's increasing representation in management was not simply a matter of their artificial reclassification. Nonetheless, the sex gap in wages within management continues to exceed that in the labor force as a whole. The implication of these results for theories of internal organizational dynamics are discussed.\*

The increasing representation of women among the ranks of managers in organizations in the U.S. is perhaps the most dramatic shift in the sex composition of an occupation since clerical work became a female-dominated field in the late nineteenth century. In 1970, census data indicated that one in six American managers was a woman; today more than two in five are women. Far more women are managers than are lawyers, doctors, architects, computer specialists, engineers, and natural scientists combined, even though women have entered each of these fields in large numbers in recent years. The surge in the number of women managers accounts for fully one-quarter of the decline in occupational sex segregation since 1970.<sup>1</sup> Yet much recent data indicates the continued paucity of women among senior-level managers. The term "the glass ceiling" has become a familiar term for describing the invisible but powerful barriers to advancement for women executives (e.g., Garland, 1991).

Recent surveys confirm the near complete absence of women from top managerial positions. *Fortune Magazine* recently surveyed 799 of the largest U.S. industrial and service companies and found that only 19 of the 4,012 (less than half of one percent) highest paid officers and directors were women (Fierman, 1990). Of the next echelon of managers, 5 percent were women. Another survey, by the *Catalyst* organization, found that less than 3 percent of the top executives in *Fortune 500* companies were women (Ball, 1991).

Research on recent M.B.A. recipients yields a more favorable reading of women's gains than do the studies of top executives. Olson and Frieze's (1987) review of the literature on the earnings of male and female M.B.A. holders reports that while many of these studies found little or no gender differences in starting salaries, studies that followed business graduates for a longer period after graduation were more likely to show a significant gender gap in earnings.

A great deal of research has documented the difficulties women have faced in advancing through the ranks of managers. Studies of corporations and other settings have shown that women are far less likely to attain positions of authority within organizations than their male counterparts

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<sup>1</sup> This estimate is based on a reanalysis of results reported in Jacobs (1989a, 1989b). Change in sex segregation is measured at the 3-digit occupational level. Nearly 6 million women are listed as managers in 1989, compared with 175,000 lawyers, 100,000 doctors, 300,000 computer specialists, 100,000 natural scientists, 130,000 engineers, and 32,000 architects (*Employment and Earnings*, January 1990).

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(Kanter, 1977, Wolf and Fligstein, 1979; Powell, 1988; Boyd and Mulvihill, 1990; Freeman, 1990; Reskin and Ross, 1992). A recent international review of the sexual division of labor in the workplace maintains that the generalization "men control, women obey" continues to hold (Bradley, 1989: 1). In light of this pattern of evidence regarding the barriers to the progress of women managers, many specialists in the area of women's opportunities are understandably skeptical when presented with census data showing the remarkable entry of women into management and wonder whether these women are really managers in anything other than title. Here, I attempt to determine whether the growth of women managers is real or is the result of artificial reclassification of women without a corresponding real change in earnings or authority.

### Skeptical Interpretations of Women's Entry into Management

Has women's representation among the ranks of managers increased from 18 to 40 percent, as national survey data indicate? After extensive discussions of these trends with students, colleagues, and specialists, I have concluded that the principal skepticisms of these data can be grouped into three arguments. First, this trend may simply be capturing the artificial reclassification of women into managerial positions to avoid difficulties with the Equal Employment Opportunities Commission (EEOC). Second, these data may paper over an underlying process of resegregation, that is, selected managerial specialties become female dominated while the preponderance of management remains a male bastion. Third, these trends may reflect a general inflation of organizational titles. I refer to these as the glorified-secretary, the resegregation, and the title-inflation hypotheses.

**Glorified-secretary hypothesis.** Equal Employment Opportunity (EEO) regulations require all firms with over 100 employees and federal contractors with over 50 employees to file an EEO-1 report indicating the number of workers at each level in the firm and the sex, race, and ethnic composition of its employees. Since the EEO reporting categories are quite broad, employers are able to classify many individuals with little authority as managers.<sup>2</sup> Smith and Welch (1984) reported that there was a rapid increase in the proportion of employees classified as managers during the early years of EEO filing requirements. Miller (1980: 109) noticed the rapid rise in the representation of women in management and suggested that "there has been considerable retitling of positions in some large organizations: under the impetus of affirmative action the administrative secretary has become the administrative assistant or the business administrator and is therefore now classified as a managerial worker." The first hypothesis, then, is that firms responded to external pressures cosmetically, in the designation of positions rather than in the substance of their behavior. This hypothesis does not take into account the possibility that before women's rapid acquisition of managerial titles, many women had a great deal of responsibility with no formal recognition and that the distribution of supervisory titles to many formerly

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The categories are officials and managers, professionals, technicians, sales, office/clerical, craft (skilled), operatives (semi-skilled), laborers (unskilled), and service workers. The definition of management for the purposes of EEOC filing is "Occupations requiring administrative personnel who set broad policies, exercise overall responsibility for execution of these policies, and direct individual departments or special phases of a firm's operations. Includes: officials, executives, middle management, plant managers, department managers, superintendents, salaried supervisors who are members of management, purchasing agents and buyers, and kindred workers" (Office of Management and Budget, *EEO Standard Form 100, Rev. 2-83, Employer Information Report EEO-1*). This definition is similar to that employed in the 1980 census, yet it does not specifically exclude clerical supervisors, which the census specifically included within the rubric of clerical workers.

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subordinate women may have been a belated recognition of their real contributions.

**Resegregation hypothesis.** The resegregation thesis is most effectively developed by Reskin and Roos (1990) in their analysis of the feminization of a dozen occupations. They found that the entry of women into previously male-dominated fields neither represents true desegregation nor does it generate the gains in earnings and other rewards that might have been expected. In general, the status of these occupations was declining even before women entered; men were already leaving, or joining in diminishing numbers; often technological change was lowering the skill requirements of the positions; and salaries and advancement opportunities were declining even before women entered. Reskin and Roos found that an erosion of the status of the occupation preceded women's entry but was reinforced by the feminization of the occupation.

Bird's (1990) study of bank branch managers provides an example of this process of resegregation. She found that the growth of employment in banking during the 1970s, pressure from the EEOC, and the availability of highly educated young women interested in the field led to a rapid influx of women into bank management. Yet women's gains were concentrated among lower-level management, particularly as branch managers, whose authority was already in decline. Bird (1990: 164) concluded that "Retail banking, particularly branch management, has become a female ghetto for many women whose chances to advance depend on the opportunity to get experience in other areas of banking." If the case of bank branch managers were typical, women's gains in income and authority would not be commensurate with their increased representation among managers.

**Title-inflation hypothesis.** A final skeptical interpretation of the apparent entry of women into management is that it simply reflects the general proliferation of managerial titles. The scores of vice presidents at financial institutions is a familiar example of this tendency. This view holds that the entry of women into management coincided with a dissemination of managerial titles to positions without significant status or authority. However, the extensive downsizing by corporations during the 1980s may have reversed the trend in the growth of middle management (Pfeffer and Baron, 1988; Smith, 1990), and, consequently, this hypothesis may be more plausible for the 1970s than the 1980s.

Data on trends in earnings and authority can help us to ascertain the underlying trends for women and men in the broad ranks of management, not just the few top positions. What specific implication do these hypotheses hold for changes in pay and authority? First, if the entry of women into management were simply a ploy by firms to circumvent reporting requirements, as the glorified-secretary thesis holds, then the sex gap in earnings and authority among managers would have expanded over the last 20 years. This is true because adding large numbers of women to the lowest ranks of management would depress the average

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wage of women managers without substantially changing the position of male managers. Thus, among managers, the sex gap in earnings would have grown if this skeptical reading of recent changes is correct. The same reasoning would predict a growing sex gap in authority. If women had previously been confined to the very bottom rungs of management, then there would have been no change in their position relative to men with the addition of many glorified secretaries. The resegregation hypothesis similarly predicts no improvement in the position of women managers relative to men. Finally, the title-inflation hypothesis implies that the earnings and authority of all managers have fallen relative to the earnings of other workers. Again, among managers, women would not have been expected to gain.

### **Social Change and Organizational Theory**

The entry of women into management no doubt had its impetus from developments outside organizations—the rise of the women's movement, the passage of equal opportunity legislation, the rapid rise in women's pursuit of M.B.A. degrees. The question here is how organizations responded to these developments. Relatively few theories provide a basis for understanding the degree of organizational resistance against women or the circumstances in which this resistance might change. For example, Acker's (1990) analysis of gender inequality within institutions does not offer specific predictions about when such inequality would be expected to be high and when it might be expected to decline. Other researchers have examined variation across a set of organizations in order to identify which are more likely to respond to environmental pressure for change (e.g., Bridges and Nelson, 1989; Baron, Mittman, and Newman, 1991). The problem here is a bit different: to explain the average response of organizations to the influx of women into management.

One theory that predicts the direction of organizational response was advanced by Kanter (1977), who argued that women gain political strength and social support networks as they increase their representation within organizations. Her theory incorporates both political and social-psychological elements on the effect of proportions on the opportunities available to women and minorities. She has argued that minority groups were especially vulnerable when their numbers were small, with token women representing the extreme case. Small numbers meant fewer political allies, fewer mentors, and role models, more visibility yet, paradoxically, a greater chance to become viewed stereotypically. She argued that each of these difficulties would tend to be mitigated as the proportions of the minority group climbed within the organization. Thus, from Kanter's analysis we may derive the hypothesis that increasing representation of women in the ranks of management can be expected to increase their chances of advancement, along with the attendant financial rewards and authority (see also Pfeffer and Davis-Blake, 1987). I refer to this as the strength-in-numbers hypothesis.

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An alternative prediction derives from an opposite view of the impact of proportions on discrimination. Blalock (1967) has maintained that resistance to minority groups increases as their numbers increase. Blalock reached this conclusion after studying residential segregation between whites and blacks, yet the underlying logic can be applied to gender conflict in organizational settings (Pfeffer and Davis-Blake, 1987). The Blalockian prediction, then, would be that the relative position of female managers would decline as their numbers increase. I will refer to this as the resistance-to-threats hypothesis.

The Blalockian resistance-to-threats hypothesis leads to the same predictions as the several skeptical hypotheses outlined above, while Kanter's strength-in-numbers thesis would be consistent with a narrowing of the gap in earnings and authority between male and female managers. These theories can also be tested by examining variation across firms. While I lack firm-level data, I did conduct tests of industry and occupations to determine whether the progress of women was greatest (or smallest) in areas where they entered in the largest numbers. Each of the predictions could be specified in two forms, one predicting the gross changes observed and another predicting the net size of sex differences after productivity-related measures are controlled. The results address both forms of these predictions.

## METHODS

**Data.** A nationally representative sample of 127,125 respondents to the 1970 census were assigned 1980 occupation and industry codes in conjunction with the 1980 census (Priebe, 1985; see also Treiman, Bielby, and Cheng, 1988). This double coding enabled me to compare these data with those for 1988, using the same (1980 census) definition of management. The sample was restricted to those who worked at least 26 weeks and at least 30 hours per week in 1969. For 1970, the sample yielded 8,158 managers, including 1,463 women (17.9 percent).

Data for 1988 were obtained from the March 1988 Current Population Survey (CPS), a survey of 117,849 individuals. For 1988, the same restrictions of hours and weeks worked produced a sample of 7,039 managers, including 3,084 women (43.9 percent). Since women were disproportionately represented in the March 1988 CPS data, this 43.9 percent does not represent the proportion of women managers in the labor force. The 39.3 percent of managers who were women in 1988 reported above reflects the weighted annual average of women in management based on the U.S. Department of Labor's January 1989 *Employment and Earnings* data. These two data sets were merged in order to create a pooled cross-sectional time series (with two time points).

Census occupational classifications are often quite broadly defined, with management occupations proving particularly difficult to specify. Census experts have repeatedly tried to refine the definition of managers, with limited success. The largest group of managers in 1988—nearly half of all

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managers—remains “managers, not elsewhere classified.” Employees defined as managers should have positions of authority within organizations and in general should have at least a limited degree of supervisory responsibility. It should be noted, however, that the staff members of executives in line positions are typically also included as managerial-level employees. The particulars of managerial authority vary, sometimes including responsibility for hiring, firing, and promoting, controlling budgets, setting goals, and developing, recommending, and monitoring policies and procedures. Unfortunately, the census question regarding a respondent's occupation does not probe respondents on whether they actually have supervisory authority. To check the validity of the census data on managers, additional data on supervisory responsibility were obtained from the General Social Survey (GSS).

A major obstacle that confounds precise estimates of labor-force time trends is the fact that occupational classifications change with every decennial census. Several changes in the definition of managers between the 1970 and 1980 U.S. censuses should be noted. First, proprietors are now excluded, a change that significantly enhances the earnings position of managers. Second, management-related occupations—such as accountants, auditors, underwriters, and other financial officers—are defined as managers in the 1980 census definitions, whereas in 1970 they had been classified as professionals. In the empirical analysis, I consider whether using a narrower definition of management that excludes management-related occupations yields the same results as the broader definition. Another important point to note about the current definition of management is that clerical supervisors are excluded from management. While in principle this exclusion should resolve the glorified-secretary question, it nonetheless may be the case that women clerical supervisors misreport themselves as managers. As discussed below, the analysis circumvents the complications posed by the changing definition of management by using a special subsample from the 1970 census that used 1980 census titles, along with supplemental analyses using GSS data that employed the 1970 census titles throughout the 1970s and 1980s.

The earnings measure used is the total annual wage and salary earnings of the individual. It should be noted that the sex gap in earnings is somewhat larger for annual, as compared with hourly earnings. In the multivariate analysis, the log of earnings is the dependent variable. This measure is conventional in analyses of earnings because it corrects for nonlinear earnings effects, and it is easy to interpret in terms of percentage change in earnings. The earnings pertain to the previous year, so that the 1988 data include information on 1987 earnings, and the 1970 data include information on 1969 earnings. Self-employed individuals, as well as those with zero or negative earnings, are excluded from the analysis.

In 1988, 2.6 percent of managers earned \$99,999 or more, the top amount allowed in the coding scheme. The overwhelming majority of these were men. These individuals on average earned considerably more than \$99,999, and

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consequently this figure was adjusted upward to correct for the bias imposed by this top-coding procedure.<sup>3</sup> Data on each individual's sex, years of school completed, hours and weeks worked, and industry were analyzed. Potential labor-force experience was estimated as age minus years of schooling completed minus six. The lack of direct data on experience is an unfortunate limitation of this analysis.

Additional data were obtained from the General Social Survey (GSS), a survey of individuals conducted annually from 1972 through 1989. The GSS data represent a pooled cross-sectional time series with 16 time points (in 1979 and 1981, surveys were not conducted). These data are repeated cross-sections, not panel data following individuals over time. While the larger CPS sample provides more reliable estimates of time trends, the GSS data are of interest because of the broader range of questions included. First, a set of questions on supervisory and subordinate status enabled me to examine sex differences and trends in this basic characteristic of management. I considered whether women were as likely to supervise as men, whether the gap in supervisory authority grew or shrank between the 1970s and 1980s, and whether sex differences in authority help to explain the sex gap in wages. Because these data do not include information on the sex of bosses and subordinates, however, I was unable to test the findings of Boyd and Mulvihill (1990) and Reskin and Ross (1992), who reported that most women managers supervise female subordinates.

A second set of questions in the GSS data pertain to work-related attitudes. Respondents were asked whether they would continue to work even if they could afford not to. Later, they were asked to rank five aspects of work: high income, job security, short hours, chances for advancement, and meaningful work. I examined sex differences and trends in these variables and explored their impact on the sex gap in wages. The questions were worded as follows:

Do you have a supervisor on your job to whom you are directly responsible? If yes, does that person have a supervisor on the job to whom he is directly responsible? In your job, do you supervise anyone who is directly responsible to you? If yes, do any of those persons supervise anyone else?

a. If you were to get enough money to live as comfortably as you would like for the rest of your life, would you continue to work or would you stop working?

b. Would you please look at this card and tell me which *one* thing on this list you would *most* prefer in a job? Which comes *next*? Which is *third* most important? Which is *fourth* most important?

The items listed on the card were "High income"; "No danger of being fired"; "Working hours are short, lots of free time"; "Chances for advancement"; and "Work important and gives a feeling of accomplishment."

Two additional points concerning the GSS data should be noted. First, the GSS data were coded with the 1970 census definition of management and thus provide data on an 18-year period with the 1970 codes, while the CPS-census comparison represents an 18-year comparison with 1980 census codes. Second, GSS data have only a small number of black managers ( $N = 112$ , or 4.5 percent). Consequently,

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The CPS data indicate whether individuals were assigned the top code as a result of their own response to the earnings question or whether they were top-coded as a result of CPS procedures. In the latter case, individuals were assigned an annual earnings figure of \$112,000 that takes into account the distribution of earners over \$50,000 in 1987. In 1969, such a small fraction were top-coded that no adjustment was made.

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the issue of trends in the earnings of black managers is not addressed with these data.

I examined trends in sex segregation within management across occupation and industry classifications with the standard index of dissimilarity (D), and the P\* measure, introduced by Lieberman (1980) and previously employed by Jacobs (1989b). P\* indicates the probability that a random coworker in one's occupation is of the opposite sex. Unlike the index of segregation, P\* is influenced by the relative size of different groups and reflects more closely the way changes in segregation are experienced. The P\* measure was used to assess the strength-in-numbers and resistance-to-threats hypotheses.

## RESULTS

### CPS Trends

Table 1 presents mean earnings data for all salaried managers with earnings in 1987 and 1969 and earnings figures by educational level for full-time, full-year managers. In nominal terms, women's wages rose 3.5-fold during this 18-year period, while male managers' wages rose 3.2-fold. In real terms, this represented only slight progress for the men, since, according to the U.S. Bureau of the Census (1989), prices increased 3.1-fold between 1969 and 1987, while women managers' real earnings rose 13 percent.

Table 1

**Annual Earnings of Managers, by Sex, Full-Time, Full-Year Status, and Education, 1969 and 1987\***

Median annual earnings	Full-Time, Full-Year					
	Total	Total	≤H.S. graduate	Some college	College graduate	Postgraduate
1969						
Female	\$6,000	\$6,600	\$6,000	\$7,000	\$8,000	\$11,000
Male	\$11,000	11,600	10,000	11,000	14,000	16,000
Female/male	54.5%	56.9%	60.0%	63.6%	57.1%	68.8%
1987						
Female	\$20,935	22,000	15,400	20,000	21,100	26,000
Male	\$35,000	36,000	26,000	30,000	33,500	41,000
Female/male	59.8%	61.1%	59.2%	67.7%	62.9%	63.4%

\* Full-time, full-year means over 50 weeks per year and over 35 hours per week. Data are from the March 1988 CPS and the 1970 U.S. census.

While not central to our concerns here, it is nonetheless interesting to note that the earnings ratio of managers to other employees narrowed during this period. Relative to other full-time, full-year working men, male managers earned 1.45 times as much in 1969 and 1.44 times as much in 1987. Female managers earned 1.32 times the average of other working women in 1969 and 1.37 times as much in 1987. This finding provides little support for the view that managerial title inflation decreased the standing of managers relative to other groups in the labor force. Declines in these ratios might be viewed by Pfeffer and Davis-Blake (1987) as evidence of a decline in status resulting from the entry of women into the occupation.

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Women's earnings as a fraction of men's increased from 54.5 percent to 59.8 percent over this 18-year period. For full-time, full-year managers, the sex ratio of earnings rose from 56.9 percent to 61.1. These results indicate that the growth of women in management was not entirely artifactual: the sex gap in wages did not grow but, instead, narrowed by a modest amount. Yet the sex gap in wages among managers remained quite large in 1987 and even slightly exceeded that in the labor force as a whole. In 1987, women working full-time, full-year earned 64.6 percent of their male counterparts (as estimated from the CPS data), compared with the 61.1 ratio among managers.

It is likely that a more comprehensive measure of work rewards that included stock options, golden parachutes, pensions, and other perks would show even larger sex differences among managers (see also Jencks, Perman, and Rainwater, 1988; Abowd, 1991). A related consideration is that the highly skewed pattern of earnings among managers allows for a larger sex gap in earnings within this group.

The educational breakdown provided in Table 1 for full-time, full-year workers indicates that part of the sex gap in wages among managers is attributable to hours and weeks worked and educational levels. Yet the sex gap in wages among full-time workers remains dramatic even after educational levels are controlled.

The analysis presented in Table 1 was repeated with a narrower definition of management occupations. This analysis excluded management-related occupations—such as accountants—from the analysis. The pattern of results, however, is very much the same, both in terms of the male-female differentials and trends over time.

I analyzed data on changes in occupation and industry distribution between 1969 and 1987. The results indicate a slight decline in occupational sex segregation among managers, with the index of segregation dropping from 17.9 to 17.0. More notable was the decline in industrial segregation, which fell from 27.3 to 20.8 measured across nine broad industrial groupings. These data do not support the notion that the ranks of management experienced a process of resegregation, in the sense of specialties becoming increasingly segregated by sex.

Also of note are the dramatic changes in the chances of sharing an occupation with a woman manager. For men, the probability of sharing an occupation with a woman increased from 13.6 in 1969 to 40.5 in 1987. In other words, male managers have not been able to resegregate their work to reestablish the distance from women managers evident 20 years ago. During the same period, women managers moved from being relatively isolated minorities to a situation in which they are almost as likely to share an occupation with a woman as with a man. Women managers' chances of sharing an occupation with another woman, only 16.4 percent in 1969, increased markedly to 45.7 by 1987. These measures are significant for the Kanter and Blalockian hypotheses, because they pertain to the experience of change in segregation as seen by men and women. These contact indicators suggest that women may be beginning to

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experience strength in numbers, while they also suggest that male managers have failed to respond to the threat of women's entrance by effectively resegregating managerial specialties.

Analyses not reported here show that the attributes of male and female managers changed in the interim (summary statistics available from the author). Women managers trailed their male counterparts in education and hours and weeks worked. In each of these areas the differences remained of comparable magnitude during the 1969–1987 period. The mean differences are smaller than those observed at the extremes, as there is less variation among women on these measures than among men. The infusion of younger women into management lowered the average age of women managers from 44 to 38, while male managers' average age declined by just over one year. In the more recent period, then, the age differential may explain a portion of the wage differential, the reverse of the situation in 1970.

A multivariate analysis of changes in earnings is presented in Table 2. This is a pooled cross-sectional analysis in which data from the 1970 census and the 1988 CPS are analyzed together, with a term to capture changes in earnings levels between the two years. The analysis focuses on sex differences in earnings and the time trend in women's earnings relative to men's. The log of annual earnings is the dependent variable. The results reported are restricted to white males and females because of the limited number of cases for blacks. Comparisons with the patterns observed for black managers are discussed when there are sufficient data.

The baseline equation includes whether individuals are female, a time trend (Year), and a Year\*Sex interaction term. Other variables are gradually added in order to explain the sex gap in wages. Once these additional variables are controlled, the resultant sex gap in wages should be smaller than the initial gap.

The first model presented in Table 2 indicates that there has been a positive trend in wages for women managers relative to men between 1969 and 1987. This conclusion is substantiated by the positive coefficient on the Year\*Female interaction term. Net of the overall trend toward higher wages between 1969 and 1987, women's wages improved relative to men's. Nonetheless, women in 1987 remained lower paid than their male counterparts. The relative position of women in 1987 can be ascertained by adding together the female coefficient with the Year\*Female interaction term. Since there is a large negative coefficient associated with being a female and a small positive interaction term, women in 1987 remained at a net disadvantage compared with men.

Model 2 adds controls for education, hours worked, weeks worked, and age to the analysis. The unexplained sex gap in wages declines by a modest amount in this equation, but the positive trend in women's wages relative to men's remains unchanged. This result is significant in that it indicates that the positive time trend for women managers is not principally due to their changing attributes. I tested for

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Table 2

<b>Determinants of Wages of Male and Female Managers*</b>				
<b>Variable</b>	<b>1</b>	<b>2</b>	<b>3†</b>	<b>4†</b>
Intercept	2.426* (.008)	-0.042* (.045)	0.052 (.046)	-0.026 (.047)
Female	-0.676* (.019)	-0.525* (.017)	-0.471* (.017)	-0.459* (.017)
Year	1.091* (.012)	0.951* (.011)	0.954* (.011)	0.953* (.011)
Female*Year	0.175* (.024)	0.193* (.021)	0.173* (.021)	0.169* (.021)
Education		0.084* (.002)	0.086* (.002)	0.087* (.002)
Hours worked				
30-34		-	-	
35-39		0.072* (.028)	0.070* (.028)	0.072* (.028)
40		0.108* (.024)	0.100* (.024)	0.104* (.024)
41-48		0.182* (.026)	0.177* (.025)	0.174* (.025)
49-59		0.235* (.026)	0.234* (.026)	0.223* (.026)
60+		0.205* (.028)	0.222* (.027)	0.211* (.028)
Weeks worked				
26-39		-	-	
40-47		0.310* (.034)	0.308* (.033)	0.310* (.033)
48-49		0.458* (.036)	0.450* (.034)	0.451** (.035)
50-52		0.626* (.027)	0.597* (.026)	0.599* (.026)
Experience (potential)		0.044* (.001)	0.044* (.001)	0.042* (.001)
Experience <sup>2</sup> /100 (potential)		-0.069* (.003)	-0.067* (.003)	-0.064* (.003)
Adjusted R <sup>2</sup>	0.160	0.376	0.397	0.407

\*  $p < .001$ ; \*\*  $p < .05$ .

\* Standard errors are in parentheses. *N* of cases is 13,575. The dependent variable is log of wages.

† Model 3 adds controls for seven broad industry dummy variables and model 4 adds controls for twelve detailed occupational dummy variables (see text for details). Coefficients available from the author.

a positive time trend in returns to education and did not find such a pattern among these managers.

Model 3 adds controls for industry. The industrial controls consisted of seven dummy variables: retail sales, wholesale trade, utilities, consumer services, business services, social services, and public administration. The reference category was a combination of manufacturing, mining, and construction. Farming was excluded from the analysis. Model 4 adds detailed occupational controls within the managerial titles. The occupational controls consisted of twelve dummy variables: public officials, personnel managers, financial managers, administrators of protective services, purchasing managers, public relations managers, educational administrators, health administrators, property managers, postmasters, funeral directors, and managers not elsewhere classified. Management-related occupations was the reference category. The addition of these measures

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explains a modest fraction of the sex gap in earnings among managers. Overall, 32.1 percent of the gender differential is explained in this analysis, with the majority (22.3 percent) due to education, hours and weeks worked, and experience differentials.

Results not shown repeat the earnings analysis with a narrower definition of management. As has been noted, the patterns of results for the narrower definition of management closely match those obtained on the broader set of managerial titles. In all, these results support the view that the large increase in female representation has not resulted in a growing gap in earnings between male and female managers.

A further bit of evidence for the positive trend in women's relative wages is that the unexplained gap in earnings declined between 1969 and 1987. In 1969, only 29.1 percent of the sex gap in earnings could be explained by the variables included in Table 2; by 1987, the same variables explained 44.7 percent of gap. Thus, not only has the size of the sex differential diminished, but the residual that may be attributed to discrimination has become attenuated. Thus, the evidence points in the direction of Kanter's strength-in-numbers view and against the predictions of the other three hypotheses. Tests of selection bias indicate that the positive time trend cannot be explained by changes in the process of selection of women into management. I computed probabilities of employment in management for the entire GSS sample with a logistic regression equation and reestimated the wage equations including this measure of selectivity. While this measure is often significant, it does not significantly affect the gender and time-trend coefficients in the wage equations.

An additional analysis (not shown) sought to ascertain whether women have narrowed the earnings gap more quickly in certain industries and occupations than others. I tested a series of industry by gender by time interaction terms, which indicate whether the time trend for women in any industry or occupation differed from the baseline trend observed for the sample as a whole. None of the interaction terms were statistically significant. This evidence is at odds with both the Kanter strength-in-numbers and Blalock resistance-to-threats hypotheses, which respectively predict differences to be positively or negatively associated with the increased concentration of women. These tests may be weak because they were applied to industries and occupations and not firms; nonetheless, the failure of any of the large number of interaction tests to be significant does indicate a striking uniformity in the pattern of change for women managers.

In other analyses not shown, black managers earned less than white managers, and there was no statistically significant evidence of a narrowing of this differential for black men. The Year\*Black coefficient was positive but not significant. However, the earnings trends for black women closely matched those found for white women. The control variables included in this analysis explain a larger proportion of race difference in earnings than is evident for the sex gap,

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principally because of the larger educational differentials between black and white managers.

### GSS Trends, Values, and Attitudes

**Gender differences in supervisory status.** Table 3 presents the responses of managers to questions regarding their supervisory status. Women are slightly less likely than men to be employed in supervisory positions (73 percent, versus 79 percent for men). The sex gap in supervision may have diminished slightly between the 1970s and 1980s, but it appears to be of comparable magnitude. These differences just fail to be statistically significant for each of the two time periods, 1972–1979 and 1980–1989.

Table 3

**Proportions Reporting Supervisory and Subordinate Status by Sex and Time Period among Managers, GSS Data\***

Variable	Total		1972–1979		1980–1989	
	Men	Women	Men	Women	Men	Women
Do you supervise anyone? (%yes)	78.98 (1.42) (N = 823)	73.15* (1.96) (N = 514)	79.38 (2.27) (N = 320)	71.43 (3.93) (N = 133)	78.73 (1.83) (N = 503)	73.75 (2.26) (N = 381)
Do your subordinates supervise anyone?	54.53 (1.97) (N = 643)	34.14* (2.46) (N = 372)	56.40 (3.14) (N = 250)	29.79* (4.74) (N = 94)	53.18 (2.52) (N = 393)	35.61* (2.88) (N = 278)
Do you have a boss?	59.81 (1.67) (N = 861)	65.84** (2.07) (N = 524)	58.94 (2.67) (N = 341)	58.65 (4.29) (N = 133)	60.38 (2.15) (N = 520)	68.29** (2.36) (N = 391)
Does your boss have a boss?	71.09 (2.02) (N = 505)	73.61 (2.39) (N = 341)	73.47 (3.16) (N = 196)	72.00 (5.22) (N = 75)	69.58 (2.62) (N = 309)	74.06 (2.69) (N = 266)
Would not work if had enough money	23.76 (1.54) (N = 766)	25.61 (2.06) (N = 449)	23.62 (2.67) (N = 254)	25.29 (5.21) (N = 85)	23.83 (1.88) (N = 512)	23.35 (2.22) (N = 364)
Rank-ordered preference for:						
Meaningful work	1.90 (.04)	1.63* (.04)	1.86 (.07)	1.57* (.09)	1.91 (.05)	1.65* (.05)
Chances for advancement	2.47 (.04)	2.44 (.04)	2.50 (.07)	2.47 (.10)	2.46 (.05)	2.43 (.05)
High income	2.58 (.03)	2.77* (.04)	2.69 (.06)	2.97* (.09)	2.51 (.04)	2.71* (.05)
Job security	3.91 (.04)	3.93 (.04)	3.92 (.06)	3.89 (.09)	3.90 (.05)	3.94 (.05)
Short hours	4.15 (.04)	4.22 (.04)	4.02 (.06)	4.10 (.10)	4.21 (.05)	4.26 (.05)
	(N = 899)	(N = 580)	(N = 325)	(N = 132)	(N = 574)	(N = 448)

\*  $p < .01$ , \*\*  $p < .05$  for differences in means between men and women.

\* Standard errors are in parentheses.

I draw two conclusions from these results. First, since supervisory responsibility is such a fundamental indicator of managerial status, and since nearly three of four women managers supervise others, these data indicate that most women managers are managers in fact and not just in title. Although many women may be office managers with a small



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number of women subordinates, these data do not support the hypothesis that there has been a wholesale upgrading of women with no supervisory status into the ranks of management. A second inference that supports the same conclusion is the fact that the sex gap in supervisory status has not grown during this period. Had firms bestowed managerial titles on large numbers of women who had no supervisory authority, we would see the sex gap in authority grow over time. Yet no indication of such a divergence is evident in these data. Again, the data support the conclusion that women have held their own, if not advanced, as their numbers increased.

A second important finding in Table 3 is that men are much more likely to be located at higher levels of management. Over half of the male managers, versus only one in three female managers, reported that their subordinates in turn supervised others. This difference persisted into the 1980s. Women managers also have less autonomy than their male counterparts, as they are more likely to report having a boss. There were no differences in distance from the top of the organization, in that the roughly three of four male and female managers reported that their boss had a boss. Table 3 leaves us with the slightly odd result that men are further from the bottom of their organizations than women, but at similar distances from the top. This incongruity may be reconciled by the fact that men tend to be salaried managers in larger organizations than women. This would enable men to supervise more layers of subordinates while remaining the same distance from the top. Unfortunately, these data do not include a measure of firm size that would enable us to substantiate this inference.

Do these differences in supervisory status have an impact on income? To facilitate this analysis, I created an index of supervisory level: 0 indicating no subordinates, 1 representing the presence of subordinates, and 2 indicating that subordinates also supervise. A parallel index of subordinate status was constructed from the questions regarding bosses. I estimated a series of regression equations parallel to those presented in Table 2 to test the impact of supervisory status and other measures on the sex gap in income. The first notable result (data not shown) is that women managers' incomes have risen relative to men's over time, net of the overall trend toward higher wages (the Year\*Female term is positive). The results obtained on the GSS data confirm the results of the CPS data that the sex gap in incomes among managers has declined over the last 20 years.

Another striking result of these GSS analyses is that the addition of training, work-effort, and industry variables has little impact on the positive trend in women managers' incomes. The Year\*Female coefficient remains close to constant across models 1 through 4. Thus, the relative increase in women's incomes is not due to a change in women's attributes relative to men's on the variables included in these models. The principal caveat required for this generalization is that it may not apply to work experience, which neither these data nor the CPS data measure directly.

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The results also indicate that the index of supervisory status has a positive effect on income. A test of an interaction between female and supervisory status failed to indicate that women obtain any lower returns from supervisory status than their male counterparts. Interestingly, the more levels of management above the respondent also had a positive effect on income. I interpret this somewhat unexpected result as evidence that larger organizations with more levels of hierarchy tend to pay their managers more than smaller organizations. This interpretation is bolstered by the fact that the addition of industry controls attenuates this effect, a result one would expect, since the industry measures are a loose proxy for organizational size.

Overall, the impact of the two measures of supervisory status on the sex gap in income is modest. The introduction of these variables reduces the direct negative effect of sex on income by only a small amount. After adding these measures in model 4, the female coefficient falls 3.1 percent, from  $-.813$  to  $-.788$ .

The effects of education, hours worked, and potential experience are all positive, as expected. Experience squared is negative, again following well-established findings. Marital status has no direct impact on income, but once interaction terms are introduced in model 5, being married has a negative impact on income for women and a positive impact on income for men. This result corresponds with the findings of other studies on the influence of marriage on wages (Korenman and Neumark, 1991). The sign on the two measures of the presence of children is negative for women managers, but only the measure of children under age six achieves statistical significance in these data. I tested whether women have lower returns to experience; in these data the sign for this interaction is in the expected (negative) direction but is not statistically significant.

The controls for education, hours, experience, marital status, children at home, supervisory status, and industry together contribute significantly to the explained variance ( $R^2$  rises from .160 to .351 when these variables are included), yet only a modest fraction (14.5 percent) of the sex gap in income among managers is accounted for by these factors. The negative coefficient for females is  $-.942$  in model 1 and  $-.805$  in model 4, leaving 85.5 percent of the male-female differential unexplained. The addition of interaction terms in model 5 makes a direct comparison of model 1 and model 5 inappropriate. Further, the positive time trend is only slightly diminished by the addition of these controls.

In additional analyses not shown, I repeated the interaction tests of gender and industry trends previously discussed for the CPS data. The results, again in concordance with the CPS findings, indicated no significant industry by gender by time trend interactions. I also conducted tests of interactions of earnings trend by gender by level of supervisory status. Again, the failure of these tests to reveal any statistically significant differences indicates that the economic gains made by women managers are not confined to the lowest or highest levels but have been distributed throughout the ranks of management.

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Overall, the GSS results corroborate the findings on the narrowing of the sex gap in wages among managers obtained for the CPS data. In addition, they indicate that the role of supervisory status in explaining the sex gap in incomes among managers is small and that the changing attributes of men and women are not responsible for the positive time trend for women.

**Gender differences in work-related values.** Data on sex differences in work-related values can shed light on two questions: whether women managers are paid less because their workplace goals differ from those of men, and whether the positive trends over time in the relative position of women managers is due to their changing work orientation. Table 3 presents the means of each of six measures of work-related values. When asked whether they would continue to work even if they had all the money they needed to live comfortably, the great majority of both men and women reported that they would work even if they could afford not to, with no gender difference evident. These results on commitment to work are similar to Bielby and Bielby's (1988) findings on work effort.

The next five questions involved asking respondents to rank-order the importance of five aspects of a job. The rank-ordering of these five job attributes was the same for men and women. Both sexes ranked "meaningful work" first; "chances for advancement" second; "high income" third; "no danger of being fired" fourth, and "working hours are short, lots of free time" fifth. Thus, there are broad similarities in the attributes of jobs favored by men and women managers. While the rank order was the same for men and women, there were nonetheless differences in the preferences expressed for two of the five measures. The mean ranking for meaningful work was higher for the women, while the importance attached to high income was higher for the men. Both of these differences were evident in both the 1970s and 1980s, with no discernible trend toward convergence. Thus, the trends over time in the relative position of women managers cannot be attributed to changes in these orientations.

Yet the presence of these modest differences does not necessarily explain the sex gap in wages. In analyses not shown here, I found that the stated preference for meaningful work does not predict wages. Both the zero-order and controlled regression analyses indicate no statistically significant effects. The preference for high income, in contrast, is positively associated with wage rates, yet the addition of this measure reduces the net sex gap in wages by only a small amount. Because the coefficient on the measure of the preference for high income is small, and because the sex difference in means is small, this variable reduces the sex gap in wages by only 0.7 percent. These results indicate that adding direct measures of work-related values to wage equations reduces the sex gap in earnings only slightly and does not affect the positive time-trend for women managers documented above. While it is always possible that other questions might have a larger effect, other work-related values are probably related to one or more of the measures included in this analysis and so would

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not have a very different effect on the wage equation or on the time trend. Moreover, we may be overstating the impact of values by ignoring the reciprocal causal impact of earnings and other work experiences on values.

## DISCUSSION AND CONCLUSIONS

These results indicate that the substantial growth of women in management has coincided with a narrowing of the gender gap in wages and no widening of the gender gap in authority. The notion that the entry of women into management represents a wholesale subterfuge on the part of corporations trying to present themselves as supportive of opportunities for women is not consistent with the results in this paper. While there are undoubtedly many instances of women who have managerial titles without corresponding pay or authority, the predominant trend has been toward real, if slow progress into management on the part of women. Consequently, the skeptical readings of the statistics on the entry of women into management—the glorified-secretary, resegregation, and title-inflation hypotheses—do not receive direct support, although there was some support for the title-inflation view, based on the declining ratio of managerial to nonmanagerial salaries.

The measures of segregation indicate modest declines in the extent of occupational and industrial segregation between male and female managers and substantial increase in the chances of men and women managers sharing the same specialty. This finding is at odds with the resegregation thesis, as well as the resistance-to-threats hypothesis. Female managers rank work-related values in the same order as their male counterparts. The small difference in the preference for high income that was evident in the data was associated with only a tiny portion of the sex gap in wages and does not explain the observed changes over time. Women managers, however, continue to trail their male counterparts in both earnings and authority. Despite the positive trends documented here, both in wages and in attitudes, female managers have a long way to go before they reach parity with their male counterparts.

The present results also differ from several studies that have noted an escalation in job titles. Smith and Welch (1984) presented clear evidence for reassignment of women during the early 1970s, yet the gains for women managers have been steady over the last 20 years, extending well after this initial response to EEO regulations. Strang and Baron (1990) found that the greater the presence of both men and women, the greater the proliferation (but not necessarily inflation) of job titles. My results do not prove that no women were artificially reassigned to managerial titles; they merely show that this process has not been the predominant trend, or if reassignments did occur, they coincided with enough wage gains for women managers to enable them to close the gap with their male counterparts.

The narrowing sex gap in wages among managers coinciding with a substantial rise in the number of women managers is consistent with Kanter's strength-in-numbers view that increasing representation of women tends to improve their

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position within organizations, while it is inconsistent with the contrasting Blalockian resistance-to-threats thesis. However, the analysis of variation across industries and occupations indicates that the extent of change for women did not vary (either positively or negatively) with the proportion employed.

These results are inconsistent with the findings of Pfeffer and Davis-Blake (1987), who found that increases in the proportion of women employed resulted in lower wages, both cross-sectionally and longitudinally, in a study of college administrators. Differences between these two studies may in part be accounted for by many differences in methodology. The present analysis is much broader in scope but less detailed in the available measures. The focus here has been on the earnings of individuals, with particular focus on the sex gap in wages; Pfeffer and Davis-Blake examined the salary of positions, with special attention to a depressing effect of percent female on earnings. Thus it may well be the case that women have been able to narrow the gap between themselves and men even though they are being paid less than men had previously been paid in the same position.

Yet I do not believe that all of these methodological differences will ultimately explain all of the disparity in results. I feel the differences in these studies ultimately reflect the fact that the present study taps broad-scale forces beyond the confines of a single setting. A complete analysis of the impact of growing numbers of women requires an analysis of dynamics internal to organizations as well as an analysis of external cultural, social, and political forces. The Kanter and Blalock hypotheses specify organizational responses to demographic shifts, yet these responses are likely to depend on why the numbers of women are changing. When men leave an occupation in decline, leaving room for the entry of women, the likely result is lower pay for the position, as Reskin and Roos (1990) documented in a number of cases. When the entry of women is the result of federal legislation, the expanding number of women M.B.A.s, and the rise of women's aspirations and expectations, the process may well be different and have different outcomes. The remarkable uniformity of the rate of change for women across industries, managerial occupations, and supervisory levels suggests that broad political, cultural, and social changes may be responsible for these trends. Local organizational factors undoubtedly explain variation across firms, but this operates on a level more detailed than the measures available in this analysis.

The results obtained here do not offer an immediate explanation for the narrowing of the sex gap in wages among managers. The data indicate that this change is not due to changes in the attributes of women managers, nor to changes in the distribution of women managers across industries and occupations within management. The narrowing of the sex gap in earnings among managers parallels a similar trend in the labor force as a whole that has been proceeding slowly but surely throughout the 1980s. Economists have tended to attribute this trend to a growth

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in women's labor-force experience (Smith and Ward, 1984; Goldin, 1990; Hayes, Hauser, and Santi, 1990; O'Neill and Polachek, 1991), although the evidence to date remains far from definitive. Despite their claims to the contrary, the results by O'Neill and Polachek (1991) indicate that more of the narrowing of the wage gap was due to the change in the coefficients than change in the characteristics. In other words, women are catching up to men more because they are getting a better return on their attributes than because they increased their human capital investments. We cannot directly test this possibility with these data, since no direct measure of experience is available, yet none of the available measures in either data set explained more than a fraction of the positive time trend for women.

More detailed research on the processes that perpetuate the glass ceiling in certain organizations while undermining it in others is needed. Systematic evidence regarding organizational cultures as well as structural attributes of organizations that tend to promote greater opportunities for women also needs to be collected. Finally, a number of large corporations have begun intensive programs to promote opportunities for women and minorities, in recognition of the fact that these groups represent the bulk of the labor-force growth over the next decade (Johnston and Packer, 1987). A comparative analysis of the successes and failures of these efforts would be particularly informative.

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