Wages and Unequal Access to Organizational Power: An Empirical Test of Gender Discrimination

Mia Hultin
Stockholm University
Ryszard Szulkin
Stockholm University

This study of Swedish workers investigates gender wage inequality, specifically, whether earnings are affected by the gender composition of establishments' managerial and supervisory staff. Theoretical arguments focus on managers' propensity to create and maintain or to undermine institutionalized gender bias and employees' capacity to mobilize resources and establish claims in the wage distribution process, mainly through social networks. Results show that gender-differentiated access to organizational power structures is essential in explaining women's relatively low wages. Women who work in establishments in which relatively many of the managers are men have lower wages than women with similar qualifications and job demands in establishments with more women in the power structure.•

One basic assumption in discrimination theories is that ascribed characteristics are of great importance for how employees are treated and for how scarce rewards are distributed in the labor market. Several researchers have pointed out that studies of labor market inequality ought to take into consideration the impact of those actors who have direct influence over organizational procedures and policies, that is, managers and supervisors (Marini, 1989; Baron, 1991). According to several scholars, work organizations can be treated as arenas on which social conflicts between management and labor as well as between different groups of employees take place (Kalleberg, Wallace, and Althauser, 1981; Acker, 1987; Baron, 1991; Tomaskovic-Devey, 1993). One implication of such a perspective on organizations is that the distribution of rewards can be seen as a process in which conflicting interests are manifested. Thus, the reward structure to some extent reflects different groups' relative power within the work organization. This perspective is clearly stated by Pfeffer (1989: 389), who argued that "wages are a resource and, like other resources, are allocated at least in part on the basis of the power of various interests." These interests may be defined along various lines, such as social class or demographic characteristics. According to the literature on labor market discrimination, gender is one of the most influential lines of cleavages in distributive conflicts over scarce resources.

Earlier studies of gender discrimination have demonstrated unequivocally the existence and persistence of gender-based wage differences in the labor market (e.g., Rosenfeld and Kalleberg, 1990; Blau and Kahn, 1992; for Sweden, see le Grand, 1994). Several scholars have tried to explain how these differences are influenced by gender composition at the occupational level (e.g., England, 1992), at the organizational level (e.g., Groshen, 1991a), and at the job level (e.g., Treiman and Hartmann, 1981). It has been found in general that wages are relatively low in labor market structures in which many women work. Pfeffer and Davis-Blake (1987) showed in their study of administrators in colleges and universities that the proportion of female incumbents depressed the wages for both male and female administrators. Huffman and Velasco (1997) presented empirical evidence indicating that relatively high numbers of women among the managers in an organization is associated with wage penal-

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ties for managers. Even though both of these studies pertain to incumbents of relatively high organizational positions, the results primarily corroborate the more general finding that a high representation of women in a specific category can serve as a negative signal about the relative value of the work performed by those in this category. The aim of the present study is different. Our aim is to move beyond this work, toward a more detailed understanding of the gender wage discrimination process, by studying how gender differences in access to organizational power structures influence the wages of male and female subordinates. We investigate the idea that women's limited access to organizational power structures is a constituent part of the explanation of gender wage inequality. The empirical question we address is whether and how the gender composition of the managerial and supervisory staff in organizations influences the earnings of female and male employees in subordinate positions. To our knowledge, there are no previous large-scale quantitative studies that address this specific research question. Our empirical analyses are based on individual-level data from the Swedish 1991 Level of Living Survey and organizational-level data from the Swedish 1991 Establishment Survey.[1] Given the relatively egalitarian character of the Swedish labor market, if we find discriminatory wage-setting practices in Sweden, they may be viewed as a conservative estimate of their importance in other developed countries.

Wage-setting Processes in Sweden

There are reasons to believe that the impact of organizational characteristics on earnings is smaller in Sweden than in many other countries. When analyzing the specific features of the Swedish labor market, observers have emphasized the high degree of institutionalization and regulation (Edin and Holmlund, 1995; Edin and Topel, 1997). The most prominent feature mentioned in this context is that wages from the mid 1950s to the early 1980s were determined to a large extent through centralized collective bargaining at the national level. A solidaristic wage policy aiming at equal pay for equal work, regardless of the profitability and productivity of the firm or industry, has been widely pursued. This policy had the explicit purpose of minimizing wage variation between equal jobs across firms and sectors. The very high union coverage rate in Sweden in combination with a well-organized and, until recently, highly centralized confederation of employers facilitated implementation of a solidarity wage policy.[2] This policy resulted in a decrease in the overall wage dispersion in the Swedish labor market (Hibbs, 1991). A number of recent empirical studies have demonstrated that decentralized wage bargaining produces relatively large wage inequality in general (Barth and Zweimuller, 1995; Blau and Kahn, 1996; Elliott and Bender, 1997) and large gender wage differentials in particular (Hammond and Harbridge, 1995). The centralized wage bargaining process in Sweden, aimed at raising the relative wages of low-wage workers, may indirectly have resulted in a relatively small wage gap between women and men. Empirical findings from international comparisons of gender wage gaps show that a society's overall wage inequality is positively related to the gender wage gap. The Swedish labor market is characterized by relatively low

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Nationally representative data on employees and their organizations have also been collected in the U.S. and Norway (Kalleberg, 1994), but as far as we know, these data have not been applied to a research question of the kind presented in this paper.

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In 1989, 85 percent of Swedish workers were unionized, compared with less than 20 percent in the United States.

wage dispersion and, hence, comparatively small wage differentials between women and men (Rosenfeld and Kalleberg, 1990; Blau and Kahn, 1992), although even during the regime of centralized bargaining, a far from negligible adjustment of wages occurred at the firm level in the form of wage drift.

Thus, while the scope for wage dispersion across firms for similar kinds of jobs was relatively limited in Sweden until the beginning of the 1980s, since then, consensus around the solidarity wage policy has been undermined. The national confederation of employers has adopted new policies aimed at determining wages at the firm level, while the trade unions' attitudes toward such decentralization have been mixed. This new situation has resulted in a decentralization of wage negotiations, which has given more latitude for local agreements. Hence, interorganizational variation in earnings has increased markedly in Sweden during the last decade. This development has been associated with some widening of the gender wage gap (le Grand, 1994). Nevertheless, the egalitarian character of the wage formation in Sweden is still relatively strong by international standards.

Another distinct feature of the Swedish labor market is the relative importance of the public sector as an employer, especially for the female labor force. Public sector organizations are governed by somewhat different principles than are profit-seeking organizations in the private sector. The public sector as an employer, for instance, is more responsive to political pressures for employment equity (Wharton, 1989; Esping-Andersen, 1990). Consequently, the gender wage gap is smaller in the public than in the private sector (le Grand, 1994). Thus, while the scope for wage discrimination against women in the Swedish labor market is comparatively small, wage discrimination still exists. The impact of discriminatory practices applied at the level of the firm as revealed by our analysis of Swedish data may accordingly be viewed as a conservative estimate of their importance in other developed countries.

GENDER DISCRIMINATION IN THE LABOR MARKET

In the literature on labor market discrimination, three different kinds of discrimination relevant for the gender wage gap are generally singled out, namely, allocative discrimination, evaluative discrimination, and within-job discrimination (Treiman and Hartmann, 1981; England, 1992; Petersen and Morgan, 1995; Tomaskovic-Devey, 1995). Allocative discrimination pertains to women facing limited access to attractive positions within a work organization either at the time of entry or in terms of career advancement within the establishment. Allocative discrimination thus denotes unequal treatment of women in decisions about recruitment and promotion that in turn lead to women generally being employed in occupations, establishments, and jobs with relatively low earnings levels. Typically female jobs are characterized by low earnings as well as by limited career growth in earnings. Hence, segregated employment is almost always the same as unequal employment (Tomaskovic-Devey, Kalleberg, and Marsden, 1996).[3]

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Obviously, a labor market in which women and men to a large extent work in different occupations need not be a result of discrimination. The gender composition within occupations and labor market segments is also influenced by such factors as individuals' earlier choices in terms of gender-specific educational fields.

Evaluative discrimination exists when jobs performed mostly by women are paid less than those jobs of comparable worth that are performed primarily by men (England and Farkas, 1986; England, 1992; Tomaskovic-Devey, 1995). The worth or the value of a job is assessed by different aspects of the work content that are of relevance in the wage-setting process, such as demands for qualifications and responsibility, but there have always been substantial and methodological difficulties innate in the evaluation process (Webb, 1919: 21). Generally, the empirical question posed in research on evaluative discrimination is whether the percentage of female incumbents depresses the relative wage level of occupations. Accordingly, this kind of discrimination is directed toward jobs and not toward individuals, and men in typically female jobs may also be discriminated against. Several studies show that occupations with many female incumbents are lower paid than other occupations with comparable work content and that this wage penalty in general pertains to both male and female employees (England et al., 1988, 1994; Baron and Newman, 1989; Tomaskovic-Devey, 1993; Kilbourne et al., 1994; le Grand, 1997).

Within-job discrimination exists to the extent that women are paid less than men in a given job (Petersen and Morgan, 1995). This kind of discrimination is directed toward individuals and generates gender wage gaps within occupations in a given establishment. Most research conducted in this field points to the fact that within-job discrimination is of limited importance when it comes to explaining wage inequalities between women and men (for an analysis of U.S. data, see Petersen and Morgan, 1995; for an analysis of Swedish data, see Petersen, Meyerson, and Snartland, 1996). A well-established research result is that the gender wage gap diminishes as occupational distinctions become finer (Treiman and Hartmann, 1981; Bielby and Baron, 1984; Marini, 1989). These findings are not surprising, however, since wage discrimination within jobs is illegal in most industrialized countries. Hence, empirical findings, the existence of legal regulations, and the fact that women and men relatively seldom have similar jobs lend support to the claim that allocative and evaluative processes are more important elements than within-job discrimination in explanations of women's relatively low earnings.

It seems reasonable to assume that gender-differentiated access to organizational power structures is of relevance for each of the three above-discussed kinds of labor market discrimination. Managers and supervisors in organizations are important actors in allocative processes as well as in processes of assigning rewards to individual employees and to different groups of employees. The role of managers and supervisors ought to be especially important in organizations characterized by a high degree of flexibility in wage-setting policies. In such organizations, the scope for potential power dynamics occurring between supervisor and subordinate should be considerable.

The idea that organizational decision makers are important in analyses of gender wage discrimination has evident points in common with feminist approaches to labor market inequalities. For instance, Reskin (1988) claimed that the basic mechanism in generating unrighteous gender wage differentials is men's desire to preserve their advantages within work organizations. Men not only have the desire and incentives to maintain their advantages in the reward distribution process, they also have the ability to do so (see also Burton, 1991; Acker, 1992). An important prerequisite for this ability is organizational power in terms of command over rules and procedures that may serve the purpose of distributing valued resources in favor of the favored. Below, we elaborate two different interpretations of the conflict perspective on organizational distribution processes. The first focuses on the role of decision makers, and the second mainly concerns the role of employees. The distinction between the two is analytical, since both mechanisms may very well act simultaneously and thus be complementary rather than mutually exclusive.

Managers and Institutionalization of Gender Stereotypes

Baron (1991) claimed that gender stereotypes that in turn contribute to unequal labor market outcomes tend to be embedded in organizational arrangements and procedures. There is empirical evidence indicating that discriminatory practices that are prevalent during the creation of a work organization continue to influence how positions are defined, staffed, and priced and that these practices become incorporated and institutionalized in the organizational structure (Baron, 1991). Such structural inertia can make existing wage differentials partly based on ascriptive stereotypes look almost like customary law and thus influence the reward distribution long after the circumstances warranting these differentials have changed (Doeringer and Piore, 1971). In Baron's view, various groups within organizations take an interest either in initiating and sustaining or in defeating ascriptive considerations in the reward allocation process. Once a certain coalition or subunit has gained power in an organization, it will presumably not withdraw its power but, instead, will act to institutionalize acquired privileges (Baron, 1991). According to Baron and Pfeffer (1994: 199), "social and demographic groups that are dominant, either quantitatively or qualitatively, will seek to distinguish themselves from others by creating systems of detailed positions and statuses which, in turn, command higher rewards."

In the context of organizational power and gender wage discrimination, it seems reasonable to assume that female managers in general are less motivated than their male counterparts to initiate and sustain institutionalized discriminatory practices against women. Several studies have indicated that individuals tend to discriminate in favor of members of their own category relative to members of another category and that gender is one salient basis for such categorization (see Brewer and Kramer, 1985, for a review of the literature). For instance, gender dissimilarity between supervisors and subordinates has been found to be negatively associated with supervisors' performance ratings (Tsui and O'Reilly, 1989). Furthermore, Turner and his colleagues (Turner, Sachdev, and Hogg, 1983) reported that in-group favoring might influence resource allocation decisions even when the decision maker's self-interest is not involved in the outcome. Thus, in work organizations in which there are no women or only a few women in positions of power, gender may go on being a prominent category, which implies negative consequences for women placed in lower organizational strata. In such organizations, women reasonably lack the means to modify criteria for success (Ely, 1995), whereas men have the resources but largely lack the interest and motivation to undo gender-biased treatment. Ely (1995: 208) illustrated this circumstance by stating that "women's scarcity in senior positions bodes poorly for the fate of other women in the organization."

Several other scholars have focused on the idea that a dominance by men in high-status positions may help to sustain the devaluation of female employees (e.g., Pfeffer, 1989). Also, empirical research indicates that establishments with relatively many female managers are less gender segregated than otherwise comparable establishments (Baron, 1991; Baron, Mittman, and Newman, 1991). Pfeffer, Davis-Blake, and Julius (1995) found that colleges and universities with a female president were more gender integrated than those led by a man. Furthermore, female organizational leaders have been found to be more prone to take an active part in measures aimed at establishing employment equity (Baron, 1991). There are also documented examples of men's resistance toward positive action for gender equality and toward women striving for high-status jobs in work organizations (Cockburn, 1991). But the evidence is not unequivocal. Some empirical studies do not support the idea that men are more prone to undervalue women's work than women are. Some, mainly experimental social psychological studies have indicated that the similarity between how female and male raters treat women is more striking than are the differences (e.g., Hamner et al., 1974; Dipboye, Arvey, and Terpstra, 1977; Abramowitz and O'Grady, 1991). Thus, earlier empirical research leaves some ambiguity about the validity of the assumption that male supervisors are more prone than their female counterparts to discriminate against female subordinates. A second interpretation of the conflict perspective, from the social network approach, is not afflicted by ambiguities of this kind.

Employees and Mobilization of Power Resources

The assumption that gender-differentiated access to managerial positions influences wage inequalities may be elaborated on through a discussion of female and male employees' opportunities to mobilize power resources. Some arguments and results originating from the social network approach are relevant in this context. Two assumptions underlie the idea that differential access to networks can help to explain women's disadvantages in the distribution of rewards in organizations. The first is that access to networks has an impact on the allocation of rewards in the labor market. The second is that gender similarity between human agents is likely to promote social contacts and ties within organizations. There is support for both of these assumptions in the literature on social networks.

Social networks in organizations have been shown to be systems for mobilizing resources, transmitting information, making decisions, and acquiring power (Lincoln and Miller, 1979; Brass, 1985). Granovetter (1974) showed in his seminal study that information obtained through personal contacts is of crucial importance in obtaining a job (for Sweden, see Korpi, 1998). Social relations have also been shown to affect income attainment (Bridges and Villemez, 1986; Boxman, De Graaf, and Flap, 1991; Simon and Warner, 1992). Furthermore, Burt (1995) showed how access to strategic networks affects upward mobility among lower-rank managers in an American high-technology establishment. Obviously, access to those actors who occupy central network positions can enhance individuals' or groups' exchange opportunities and thus strengthen their bargaining power in reward distribution processes (cf. Hedström, 1999). One explanation of the influence of social contacts on earnings is based on the notion of imperfect information. Employers may combine scarce or imperfect information on workers' productivity—provided by formal criteria like schooling and labor market experience—with information obtained via social networks. The use of informal information reduces employers' uncertainty and can influence both hiring decisions and initial wages of workers (Simon and Warner, 1992).

The social network literature has also demonstrated the impact of demographic criteria like gender, ethnicity, and age on the occurrence of social contacts and on individuals' centrality in networks. According to the similarity attraction paradigm (Byrne, 1971), closer ties primarily emerge among people with similar attributes. Social similarity seems to evoke attraction and to act as a mechanism for resolving uncertainty (cf. Pfeffer, 1989). Moreover, research suggests that social similarity facilitates communication and helps to create relationships of trust and reciprocity (Lincoln and Miller, 1979; McPherson and Smith-Lovin, 1987). Several scholars have shown the importance of gender in this context. Both women and men tend to interact within gender-segregated networks inside organizations (Rogers and Kincaid, 1981; Brass, 1985; McPherson and Smith-Lovin, 1987). Furthermore, men seem to have more developed professional social contacts at work than women have (Fischer and Oliker, 1983; Marsden, 1987). Women are less central than are men in those networks in which organizational power is located and important decisions on organizational policies are made (Brass, 1985). Hence, women may receive less support for their arguments and their claims in workplaces where male representation among the decision makers is high.

The social network argument seems to provide little support for the above-discussed claim that female managers may undervalue women's work just as much as male managers do. The main precondition for mobilization of power resources through organizational networks is the existence of direct or indirect ties between employees or groups of employees, on the one hand, and individuals in central organizational positions, on the other hand. Or, to put it more bluntly, it is better for employees to *have* than *not to have* network links to central organizational positions. Irrespective of how female managers judge women's work in principal, female subordinates should be advantaged when other women are an integral part of the organization's power structure, simply because interaction within organizations is facilitated by gender similarity between actors.

METHOD

Sample

The empirical analyses are based on two interrelated data sets. The information on individuals and their jobs was collected in the 1991 Swedish Level of Living Survey. That sample consists of approximately 6,000 individuals representative of the Swedish population aged 18 to 75. The response rate was 79 percent. Around 3,500 persons in the survey were wage earners at the time of the interview. Those respondents employed in establishments with at least ten employees were asked to give the name, address, and telephone number of their workplace. This procedure generated a sample of 2,135 organizations, which make up the 1991 Swedish Establishment Survey. The top managers of these establishments were contacted for telephone interviews to answer questions on organizational structure, personnel policies, promotion systems, training programs, market situation, and various other organizational features. The response rate was 93 percent, and usable information was received from 1,983 establishments. The combined information from the two surveys is representative of Swedish employees working in establishments with ten or more employees.[4]

Since individual earnings is the dependent variable of interest in the present paper, the unit of observation is individuals and not establishments. Due to the fact that some of the larger organizations employ more than one respondent, the total number of observations (i.e., individuals) is larger than the number of establishments. In total, 2,165 individuals interviewed in the Swedish Level of Living Survey were employed by the establishments covered by the Swedish Establishment Survey. Of these employees, 1,627 did not fulfill any supervisory responsibilities and thus met the criterion for inclusion in our sample. Due to missing data on some of the relevant variables, the total number of analyzed employees is 1,450. To explore whether the reduction in the number of observations could contribute to bias due to sample attrition, we compared the individuals in the original sample (N = 1,627) with those included in the analyses (N = 1,450) with respect to average values on the studied variables. This comparison showed no significant differences between the original sample and the sample used in the analyses. This indicates that sample attrition bias is not present.

Variables and Analysis

To explore processes of discrimination in work organizations, we employed several multivariate analyses with the logarithm of pre-tax hourly wages as the dependent variable. The analyses were conducted separately for women and men who worked in establishments included in the Swedish Establishment Survey and who had no supervisory responsibilities. We present the results for female and male employees in all organizations and in private and public sector organizations separately, because previous research has shown that wage differences between women and men are larger in the

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For more thorough descriptions of the Level of Living Survey and the Swedish Establishment Survey, see Fritzell and Lundberg (1994) and le Grand, Szulkin, and Tåhlin (1994), respectively.

private sector than in the public sector (le Grand, 1994; Andersen and Tomaskovic-Devey, 1995). To evaluate the net impact on employees' wages of the gender composition of organizations' supervisory staff, we controlled for other potential sources of wage variation by means of two sets of variables. The first set consisted of the standard measures of human capital, namely, labor market experience, seniority with current employer, and years of formal education. According to the human capital tradition, gender wage differentials are primarily attributable to differences between women and men in accumulated qualifications relevant for labor market outcomes (Becker, 1964, 1985; Mincer and Polachek, 1974). The second set of variables included indicators measuring different characteristics of the jobs held by the respondents and women's and men's differential allocation across establishments and economic sectors. This block of variables was made up by educational job demands, requirements for on-the-job training, the percentage of women at the workplace, and industry.[5] A standard result in the literature on labor market segregation is that women's limited access to advantageous work positions and work structures is an important explanation of the gender wage gap (England et al., 1988; le Grand, 1997). Thus, the estimated effect on employees' wages of the managerial gender composition was calculated net of potentially powerful effects of differences between women and men in skill acquisition, job characteristics, and labor market location.

The empirical analyses are based on the assumption that supervisors in organizations have substantial power over the wage-setting process. As mentioned above, it seems reasonable to believe that there is a larger margin for discrimination in those establishments in which the wage-setting process is not centrally regulated. To test the validity of this assumption, we performed additional analyses for those organizations in the sample in which a decentralized wage-setting policy was applied.

The sampling procedure used to generate the present data set may produce problems with dependent observations due to the fact that some of the respondents are employed by the same organization and thus, by definition, share the same workplace environment. To handle this within-group dependence, we conducted regression analyses based on clustered data. The results presented below include both the total number of individual observations and the total number of independent clusters. We also made use of Huber-White estimators of variance, which produce robust standard errors and limit the problem of heteroscedasticity (White, 1980).

The respondent's *earnings* were measured as the natural logarithm of the pre-tax hourly wage. Since most employees do not receive a fixed hourly wage, other kinds of pay—such as monthly, weekly, and daily earnings, bonuses, piece-rate payments, commissions, and additional compensation for overtime or inconvenient working hours—were recalculated into earnings per hour.

The individual's *education* measures the total number of years of formal schooling. *Labor market experience* is a direct measure of the number of years that the employee has

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Industries were classified according to the *Svensk Näringsgrensindelning* or *SNI* (Sweden Statistiska Centralbyran, 1977: 9). This classification follows the *International Standard Industrial Classification of All Economic Activities* (ISIC) and contains the following industries: engineering, construction, other manufacturing, trade, transportation, business services, public administration, health care, education, and other services. All regression analyses in this paper include controls for industry, although the estimates for the industry dummies are not presented in the tables.

been in employment. To take curvilinear effects into account, we included a square term of experience in the analyses. *Seniority* measures the number of years that the respondent has worked with his or her current employer. The variable *on-the-job training requirements* is the reported amount of time necessary for learning to perform the current job reasonably well, aside from skill requirements at the time of recruitment, on the following scale: 1 = 1 day or less, 2 = 2–5 days, 3 = 1–4 weeks, 4 = 1–3 months, 5 = 3 months–1 year, 6 = 1–2 years, and 7 = more than 2 years. The variable *educational job demands* indicates how many years of schooling beyond elementary or compulsory school are needed in the respondent's job.

The *percentage of male supervisors* is the percentage of men among all managers and supervisors in the organization.[6] The *percentage of women in the organization* is the proportion of women among all employees who work in the organization. *Sector of employment* is an indicator variable taking the value 1 for public sector organizations and 0 for private sector establishments. Organizations were considered as adopting *decentralized wage setting* if decisions about wage policies were made at hierarchical levels below the highest workplace manager.

RESULTS

Table 1 provides descriptive statistics, for women and men separately, for all variables included in the analyses. Women's hourly wages make up about 87 percent of men's wages. This gender differential does not seem proportional to the relatively small gender differences that exist in terms of individual qualifications. Men have less than two years more labor market experience than women have, and the gender differences in seniority with current employer as well as the number of years in education are negligible. Yet there are considerable differences in the allocation of women and men to jobs and establishments in the labor market. Men tend to be employed in workplaces where a large majority of the employees are men, whereas the opposite applies to women. Jobs held by men tend to require somewhat more education and on-the-job training than women's jobs do. Furthermore, a great majority of female employees work in the public sector, whereas the majority of men work in the private sector. Finally, male employees tend to work in establishments with a striking preponderance of male supervisors and managers. By contrast, women are employed in organizations in which women on average fill half of the supervisory positions. These findings can be treated as clear-cut features of the sex-segregated Swedish labor market.

Table 2 shows the gender composition of the workplace supervisory staff for all organizations in the sample and for private and public sector organizations separately. Five different compositional categories are evident, namely, an all-male, a mostly male, a balanced, a mostly female, and an all-female supervisory staff. A supervisory staff that is either all male or all female is made up either of 100 percent men or 100 percent women. In an organization with a mostly male or mostly female composition, 71 to 99 percent of the managers are either men or women, respectively. In an organiza-

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The proportions of male and female supervisors in the Establishment Survey closely resemble the gender composition of respondents in the Level of Living Survey who have at least one subordinate. According to the Establishment Survey, the average proportion of male supervisors is 68 percent, whereas 66 percent of the respondents in the Level of Living Survey indicate that they have subordinates who are men. Thus, the reliability of our crucial independent variable appears to be high.

Table 1

Descriptive Statistics for Women and Men in Subordinate Positions*

Variable	Women	Men
Hourly wages (Swedish Kronor)	70.32	80.74••
Percentage of male supervisors and managers	52.3	83.7••
Labor market experience (mean no. years)	16.6	18.2••
Seniority, current employer (mean no. years)	9.2	9.3
Education (mean no. years)	11.2	11.4
Requirements for education (mean no. years)	1.8	2.1•
Requirements for on-the-job training (mean)	4.1	5.1••
Percentage women in the organization (mean)	66.5	31.4••
Public sector (percent)	61.3	33.1••
Private sector (percent)	38.7	66.9••
Number of individuals	721	729

• $p \leq .05$; ••$p \leq .01$ for the difference between women and men to be 0.
* Statistics are calculated only for those individuals for whom there are valid data on all variables included in the wage equations.

tion with a balanced gender composition among the decision makers, between 30 and 70 percent are either female or male (for a similar categorization, see Tomaskovic-Devey, Kalleberg, and Marsden, 1996). As can be seen from table 2, men's dominance among the decision makers in Swedish work organizations is prominent. In 30 percent of the organizations, there are no female supervisors at all. A further 29 percent of the organizations have a mostly male supervisory staff, whereas less than one-fourth of the establishments have a gender-balanced supervisory staff. In the private sector, male dominance at the supervisory level is especially salient. In more than 40 percent of the private sector organizations, there are no female supervisors at all, and less than one-fifth of the private establishments have a gender-balanced managerial staff. Barely one out of thirty workplaces in the private sector has either a mostly female or an all-female supervisory staff. The representation of women among managers and supervisors is in general stronger in the public than in the private sector. In more than a third of the public sector work organizations, management is all or mostly female, and more than a fourth of the public sector establishments has a gender-balanced supervisory staff.

Table 2

Sex Composition (Percent) of Supervisors and Managers in Work Organizations with at Least Ten Employees

Sex of managers and supervisors	All organizations	Private sector	Public sector
All male (100% men)	30	42	17
Mostly male (71–99% men)	29	38	20
Balanced (30–70% men/women)	22	17	28
Mostly female (71–99% women)	10	2	19
All female (100% women)	9	1	16
Number of organizations*	1843	947	896

* The unit of observation in this table is organizations. Since the calculations are based on all workplaces that are included in the initial organizational sample, the number of organizations exceeds the number of individuals included in the other tables.

Table 3

Regression Analyses of ln(wages) for Women and Men in Subordinate Positions*

	All organizations				Private sector	
	Model 1 Women		Model 2 Men		Model 3 Women	
Variable	*b*	*t*	*b*	*t*	*b*	*t*
% Male supervisors	−0.104••	−2.824	0.015	0.319	−0.136•	−2.354
Experience	0.013••	5.992	0.017••	7.092	0.012••	3.805
Experience^2/100	−0.022••	−4.760	−0.028••	−5.791	−0.020••	−2.974
Seniority	0.001	1.064	0.001	0.565	0.001	0.453
Education	0.016••	4.303	0.020••	4.583	0.022••	3.218
Educational job demands	0.022••	4.552	0.032••	6.563	0.015	1.833
On-the-job training	0.015••	2.710	0.010	1.716	0.017•	2.132
% Women in org.	−0.174••	−3.328	−0.126••	−2.671	−0.157•	−2.374
Public sector	−0.036	−1.166	−0.026	−1.077		
Constant	3.864••		3.846••		3.818••	
R^2	0.315		0.366		0.348	
Number of individuals	721		729		279	
Number of clusters	694		686		269	

Table 3 shows the impact of managerial gender composition on women's and men's wages. When discussing the results, we concentrate on the crucial issue of this study, namely, whether the idea of discrimination as a process involving the power structure in work organizations can be empirically substantiated or not. In models 1 and 2 in table 3, the wages of female and male employees in subordinate positions are analyzed for all organizations in the sample. As can be seen in model 1, the proportion of men among the organizational managers affects women's earnings negatively and significantly. The predicted net wage effect for a woman of moving from an organization with male supervisors only to an organization with 50 percent female supervisors would be an increase of about 5 percent. Thus, the effect of managerial gender composition on women's wages is quite substantial. Results of model 2 in table 3 show that men's wages are not significantly influenced by the prevalence of male supervisors in the work organization. For the measures of human capital and allocation to positions and establishments, the results from models 1 and 2 in table 3 are consistent with findings from previous research on wage determination processes and gender wage differentials.

Models 3 and 4 in table 3 assess the impact of the gender composition of organizational managers on the earnings of privately employed women and men. According to the results from model 3, the wage penalty for women working in establishments with relatively many male supervisors is especially marked in the private sector. A woman moving from a private organization with only male supervisors to a private organization with 50 percent female supervisors would on average increase her pay by about 7 percent. Results of model 4 in table 3 show that men's earnings seem unaffected by the gender composition of organizational power structures. The main conclusion reached from the analyses in models 3 and 4 in table 3, thus, is that the gender compo-

Table 3 (*continued*)

Variable	Private sector Model 4 Men *b*	*t*	Public sector Model 5 Women *b*	*t*	Model 6 Men *b*	*t*
% Male supervisors	−0.028	−0.398	−0.092	−1.947	0.050	0.772
Experience	0.018••	6.398	0.013••	4.681	0.016••	3.602
$Experience^2/100$	−0.028••	−4.916	−0.024••	−3.853	−0.028••	−3.122
Seniority	−0.001	−0.343	0.002	1.219	0.003	1.706
Education	0.024••	4.222	0.013••	2.786	0.016•	2.524
Educational job demands	0.034••	5.314	0.026••	4.256	0.028••	4.072
On-the-job training	0.011	1.547	0.014•	2.025	0.007	0.651
% Women in org.	−0.142•	−2.418	−0.187•	−2.333	−0.100	−1.441
Public sector						
Constant	3.783••		3.728 ••		3.894••	
R^2	0.402		0.319		0.361	
Number of individuals	488		442		241	
Number of clusters	453		425		233	

• $p \leq .05$; •• $p \leq .01$.
* Controls for industry are included in all models.

sition of organizational managers in the private sector is of great importance for women's wages but not for men's.

Models 5 and 6 in table 3 show results of the analyses of wages for women and men employed in the public sector. These results lend support to the idea that discrimination is a process influenced by the gender composition in power structures within organizations. Although the estimate for gender composition in model 5 does not fully meet the formal requirements on statistical significance at a 5-percent level, the reported t-value is extremely close to adequacy (−1.95 instead of −1.96). Women's wages tend to be relatively low in public organizations in which men make up a large proportion of the organizational managers. The predicted wage gain for a woman moving from a public sector organization with an all-male managerial staff to a public sector organization in which 50 percent of the managers are women is about 4 percent. This predicted wage gain is thus somewhat less than in the private sector, although the difference between sectors does not reach statistical significance.

The empirical results presented so far indicate that differences in access to organizational power between women and men are highly important for understanding discriminatory practices in the wage-setting process, but it is possible that our results mainly are due to some kind of selection process. It is conceivable that some organizations for some reasons attract and retain a female labor force of especially high quality. If female employees with a high productive capacity were systematically allocated to a limited number of organizations, these organizations would eventually be characterized by a high female representation among the supervisors as well as by relatively high wages for women. Thus, the negative net effect of the proportion of male supervisors on women's wages could reflect unmeasured interorganizational variations in workforce quality. While it is practically impossible on empirical grounds to dismiss completely the objection that the results are due to selection bias, there are strong arguments for accepting our main conclusion, namely, that the gender composition in organizational power structures is highly influential for female employees' wages.

First, we controlled for both individual and job-related factors that are related to an employee's productive capacity. The explanatory strength of the wage equations that include the individual and positional predictors is quite impressive, with R^2s ranging from 32 to 40 percent. Unmeasured productive capacities can explain the effect on female wages of the proportion of male supervisors only if these capacities are not captured by employees' education, experience, seniority, educational job demands, and on-the-job training. It is reasonable to assume, however, that relevant unmeasured individual traits, such as innate ability and ambition, strongly covary with such measured factors as educational and positional attainment. This assumption is supported by Groshen (1991b) and Levine (1993), who argued that one should not exaggerate employers' capacity to observe, quantify, and reward individual traits that are impossible for researchers to measure.

Second, if a highly productive female labor force were systematically allocated to certain organizations, these organizations should be characterized by high wage levels compared with other organizations with a more normal distribution of productivity among employees. Our main finding did not change, however, when we performed additional analyses with controls for organizational mean wage levels (results not shown). This circumstance can be seen as a further argument against the objection that our results are contaminated by selection bias.[7]

The negative relationship between the proportion of male managers and women's wages can in principle be interpreted in two different ways. One way of conceiving of the relationship is that male supervisors tend to undervalue female employees and their work. An alternative interpretation is that female supervisors in general exaggerate the value of women's work. Empirical findings from numerous studies, however, point to the fact that there is a substantial gender wage gap in men's favor, which certainly indicates that the first interpretation is more plausible than the second. Nevertheless, we further examined whether there is any reason to accept the suggestion that female managers tend to overestimate women's productivity. In additional regression analyses (results not shown), we estimated the gender wage gap first for employees in organizations with at least 50 percent male managers and then for employees in organizations with more than 50 percent female managers. We assessed in each regression the effect on wages of a dummy variable for the employee's gender and included in the equations the other independent variables displayed in table 3, that is, indicators of human capital, job requirements, and labor market location. If female supervisors tend to overestimate female employees' productivity, we ought reasonably to have found that women earn more than do comparable men in establishments with a female majority among the managers. The results did not confirm this assumption. Albeit relatively small and statistically insignificant, the gap was to men's advantage even among employees in establishments with

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We also examined the potential influence on the main result of such factors as hours worked, organizational size, and percentage of women in the occupation, but none of these factors influenced the observed negative effect on women's wages of the percentage of male supervisors in the workplace.

more than 50 percent female managers. Among employees in workplaces with a male dominance in the power structure, the gender wage gap to men's advantage was substantial and highly significant. Thus, the results support the notion that women do not obtain righteous rewards for their productivity and competence in establishments in which men dominate the supervisory staff.

Gender Wage Discrimination and Decentralization of Wage-setting Processes

The following analyses are based on the assumption that organizations with a relatively decentralized wage-setting process are characterized by a high degree of wage flexibility. When managers at hierarchical levels below the highest workplace manager can exert influence over the rewards of employees, the scope for action in terms of formal as well as informal negotiations and pressures becomes relatively large. The analyses in table 4 include only those respondents who work in organizations in which supervisors at levels below the highest workplace manager decide about employees' wages. We did not perform separate analyses of private and public sector employees, since the number of cases in such subsamples would be too small to make statistical estimation reliable. The results presented in table 4 should be interpreted with some caution, however, since the number of studied individuals is considerably lower in these analyses than in previous analyses.

As can be seen from model 1 in table 4, the negative effect on women's wages of the male representation among managers and supervisors is highly substantial and statistically significant in the analyzed subsample. The effect is almost three times stronger for women working in organizations with a decentralized wage-setting process than for female employees in general, as shown in model 1 in table 3. This difference in effects is significant at the 5-percent level. The results presented in table 4 thus further support the notion

Table 4

Regression Analyses of ln(wages) for Women and Men in Subordinate Positions in Organizations with Decentralized Wage-setting Policy*

	Model 1 Women		Model 2 Men	
Variable	*b*	*t*	*b*	*t*
% Male supervisors	−0.299••	−2.731	0.159	1.064
Experience	0.018••	3.557	0.019••	4.054
Experience^2/100	−0.035••	−2.827	−0.037••	−3.658
Seniority	0.003	1.478	0.001	0.436
Education	0.027••	3.434	0.014	1.571
Educational job demands	0.010	1.007	0.034••	3.619
On-the-job training	0.034••	2.899	0.017	1.532
% Women in organization	−0.484••	−4.493	−0.071	−0.650
Public sector	0.014	0.280	0.031	0.656
Constant	3.728••		3.880••	
R^2	0.528		0.397	
Number of individuals	152		209	
Number of clusters	138		182	

• $p \leq .05$; ••$p \leq .01$.
* Controls for industry are included in both models.

that unequal access to organizational power structures is an important mechanism behind gender wage inequality. This mechanism seems to be most salient in organizations in which the distance is relatively short between the subordinates, on the one hand, and the managers who decide about financial job rewards, on the other hand. In such establishments, women seem to face especially severe problems in obtaining fair pay for their qualifications and job demands.

DISCUSSION AND CONCLUSIONS

The point of departure in the analyses presented in this paper was the idea that power relations in work organizations are of crucial importance for understanding how gender inequalities in financial rewards are generated and sustained in the labor market. If gender wage differentials are to be explained in terms of discrimination, employers and other decision makers in work organizations ought reasonably to be important actors in the process leading to women obtaining unfair rewards for their performance at work. The results support the assumption that the gender composition in organizational power structures is consequential for the wages of employees. Women who work in establishments in which relatively many of the managers are men have lower wages than do those women with similar qualifications and job demands who work in establishments with a stronger female representation in the power structure. This result is especially clear-cut for employees in establishments in which decisions about wages are made at hierarchical levels below the highest workplace manager. This finding suggests that flexibility in the wage-setting process augments the scope for gender wage discrimination. The empirical results further indicate that the gender composition among managers does not influence the wages of male employees. In other words, men who work in establishments in which a relatively large number of the supervisors are men have neither lower nor higher wages than comparable men who work in organizations with relatively few male supervisors.

The results pertaining to female employees are compatible with both theoretical perspectives proposed to link the gender composition of power structures to the pecuniary rewards of employees. According to the first line of argument, managers are actors who have the capacity either to initiate and sustain or to undermine institutionalized gender bias in organizations. Due to self-interest, solidarity, or loyalty with other women, female managers may be more inclined to remove this kind of bias. Male managers can, on the contrary, be assumed to lack the motive to set aside discriminatory practices. A possible objection to this perspective is that it ignores a potential free-rider problem. Even though the abolition of gender inequality benefits women as a group, individual female managers may not consider the group's interest as their own interest. In the context of the present study, however, it was impossible to adequately evaluate the importance of this objection. The second line of argument developed in this paper is based on social network theory and suggests that female employees have better opportunities to establish their claims in negotiations and conflicts over distribution policies in organizations in which men do not dominate the upper echelons of the hierarchical structure. This interpretation is not affected by the free-rider problem, since female employees, just like other employees, have an obvious interest in augmenting their wages.

The results pertaining to male employees are more difficult to evaluate in terms of the two interpretations suggested. While female and male managers tend to reward women quite differently, they seem to agree on how male employees are to be rewarded. According to the network approach, the expectation would be, rather, that *both* female and male employees benefit in terms of wages if relatively many of their managers are of the same gender as they are. As has been shown, the empirical findings did not support this assumption. Instead, the perspective focusing on managers' actions might provide a better explanation in this context. The asymmetry in outcomes might possibly indicate that female managers are prone to remove institutionalized gender inequalities yet not to discriminate against men, whereas male managers in general primarily act to defend existing male primacy in the wage-setting process. Admittedly, this interpretation is speculative, and we do not wish to claim that we have actually performed a critical test to adequately evaluate the relative weight of the two potentially complementary processes.

An essential research issue is whether gender wage discrimination is directed toward individual female employees (i.e., within-job discrimination), toward typically female jobs and occupations (i.e., evaluative discrimination), or whether it is mainly a result of women facing limited access to well-paid positions within work organizations (i.e., allocative discrimination). As argued in the theoretical section of this paper, there are good reasons to believe that within-job discrimination is of lesser importance than evaluative and allocative discrimination in the Swedish labor market.

The process generating the empirical outcome suggesting that women's wages are higher in establishments in which relatively many of the supervisors are women might involve both an evaluative and an allocative element. First, female managers may be more responsive than their male counterparts in recognizing the value of women's work and accordingly help to raise the wages for jobs that are typically performed by women. Second, female managers may be more prone to discover talented female workers and to promote them into better paid jobs. But to be able to adequately distinguish between different kinds of discrimination and relate them to the gender composition of organizational power structures, we would need to have at our disposal a data set that includes information about a larger number of employees at each work establishment. The analyses presented here nevertheless provide us with arguments for claiming that the gender composition in hierarchical power structures within work organizations should be considered an important part of research aimed at understanding those processes that generate and sustain gender wage inequality in the labor market. Since this study, to our knowledge, is the first one scrutinizing the impact on wages of gendered access to organizational power structures, the main result should be interpreted with some caution. Given that research is a process in which hypotheses are formulated, empirically evaluated, and rejected or temporarily accepted, we can only claim that the idea of gender-differentiated access to positions of power as one important mechanism behind discrimination has at least survived an initial empirical inquiry. One obvious task for future research lies in trying to corroborate our results in an international context.

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