# The Gender Gap in Workplace Authority:
*A Cross-National Study*

*Published in American Sociological Review, Vol. 60, No. 3. ( 1995): 407-435.*

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# THE GENDER GAP IN WORKPLACE AUTHORITY: A CROSS-NATIONAL STUDY*

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*We explore a range of issues concerning the gender gap in workplace authority in seven countries (the United States, Canada, the United Kingdom, Australia, Sweden, Norway, and Japan). There are six main empirical conclusions. First, there is considerable cross-national variation in the gender gap in authority: The gap is lowest in the four English-speaking countries (especially the United States and Australia) and highest in Japan. Second, the gender gap in authority within countries and the pattern of cross-national variation do not appear to be the result of gender differences in personal attributes or employment settings. Third, the self-selection hypothesis (that women choose not to seek authority because of family responsibilities) does not appear to account for much of the gender gap in authority, except perhaps in Canada. Fourth, we find little support for the "glass-ceiling" hypothesis that barriers to upward promotions for women in authority hierarchies are greater than the barriers they face in getting into hierarchies in the first place. Fifth, in the United States the barriers faced by women already in hierarchies are weaker than in other countries, and probably weaker than the barriers they faced to enter hierarchies in the first place. Finally, we find suggestive evidence that these variations across countries in the gender gap in authority are explained by the interaction between the availability of managerial positions and the capacity of politically organized women's movements to challenge barriers to women gaining authority in the workplace.*

The concept of "authority" is relevant to the analysis of job structures and gender inequality in three principle ways. First, authority is a valued attribute of jobs, both because it confers status on a person and because the responsibilities it involves may be intrinsically rewarding. Second, authority is one of the central ways in which the financial rewards of work are allocated (Halaby 1979; Robinson and Kelley 1979; Wright 1979; Roos 1981; Spaeth 1985; Jaffee 1989; Reskin and Roos 1992; Reskin and Padavic 1994:85). Third, and perhaps most significant, because of the real power associated with positions in authority hierarchies, gender inequalities in authority may constitute one of the key mechanisms that sustain gender inequalities in workplace outcomes. The underrepresentation of women in positions of authority, especially high levels of management, is not simply an *instance* of gender inequality; it is probably a significant *cause* of gender inequality. If, as Kanter (1977) suggested in her classic study of gender and management, male managers in a male-dominated hierarchy are likely to act in ways that preserve male privileges and advantages,

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then gender inequality in workplace authority becomes a key institutional element in the reproduction of gender inequality throughout work organizations.

Of course, no one is surprised by the fact that workplace authority is unequally distributed between men and women in all of the countries we examine. What may be surprising, however, is the pattern of cross-national variation in the gender gap in authority. To take just one example, in the United States the probability of a man in the labor force occupying an "upper" or "top" management position is 1.8 times greater than the probability of a woman occupying such a position, whereas in Sweden, the probability for men is 4.2 times greater than that for women. These results may seem counterintuitive, since in many respects gender relations are more egalitarian in Sweden than in the United States: The wage differential between men and women is much lower in Sweden;[1] husbands, on average, perform a somewhat higher proportion of housework;[2] and gender attitudes are significantly more egalitarian in Sweden than in the United States.[3] Nevertheless, the gender gap in workplace authority is considerably greater in Sweden than in the United States.

In this paper, we document and attempt to explain these kinds of cross-national variations in gender inequality in workplace authority in seven developed, capitalist countries—the United States, Canada, the United Kingdom, Australia, Sweden, Norway, and Japan. More specifically, we attempt to assess the extent to which the gender gap in authority within these countries and the variations in the gap across countries can be attributed to discrimination against women. While some limited research on gender inequalities and discrimination in the distribution of authority exists (Wolf and Fligstein 1979a, 1979b; Hill 1980; Grandjean 1981; Rosenbaum 1984; Diprete and Soule 1988; Jaffee 1989; Jacobs, 1989, 1992; Reskin and Roos 1992; McGuire and Reskin 1993), we know of no quantitative research that systematically explores this problem in a broad comparative context.

## ANALYTICAL STRATEGY

Several familiar factors may make women less likely than men to occupy workplace positions involving authority. Gender differences in aspirations and occupational preferences, partially a result of socialization processes and partially of adaptive preference formation, may lead women to select themselves out of the running for authority positions. Gender differences in various kinds of individual attributes, especially specialized training and labor market experience, may make women less qualified for managerial jobs. Gender differences in employment settings—sectors, size of employing organization, state versus private employers, part-time work—may affect the opportunities for promotion into positions of authority. And, of course, active gender discrimination may simply make it harder for qualified women to be promoted. The beliefs and motives of actors engaged in discrimination can take many different forms: a commitment to norms barring women from exercising authority over men (Kanter 1977; Bergman 1986), stereotyped beliefs that women are too emotional to be effective managers (Kanter 1977; Reskin and Hartman 1986), belief in the efficiency of "statistical discrimination" (Wolf and Fligstein 1979a; Bielby and Baron 1986), or simply the desire to preserve men's power and privileges (Reskin 1988; Acker 1990). Regardless of the underlying motives, discrimination affects the relative chances of men and women to occupy positions of authority, either because it affects access to the

[1] In Sweden in the late 1980s, women's hourly earnings were roughly 91 percent those of men, whereas in the United States the figure was about 65 percent (National Committee on Pay Equity 1988).

[2] Wright et al. (1992) reported that in two-earner households, the average Swedish man does about 25 percent of the total housework, whereas in the United States the figure is only 20 percent. Furthermore, in families in which the wife works 40 hours a week in the paid labor force, the figure in Sweden is nearly 40 percent whereas in the United States it is still about 20 percent.

[3] In our data, 57.1 percent of Americans compared to 74.1 percent of Swedes agree (somewhat or strongly) with the statement "Ideally there should be as many women as men in important positions in government and business." For a discussion of gender attitudes in Sweden and the United States, see Baxter and Kane (forthcoming).

social networks and personal interactions that facilitate promotions, or because people in positions of higher authority directly discriminate against women in their allocation of people to positions of authority.

The ideal data for analyzing gender discrimination in access to authority would include direct observations of the discriminatory acts that cumulatively shape the outcomes. Since such data are never available in systematic, quantifiable form, research on gender inequalities in labor market outcomes typically relies on indirect methods of assessing discrimination. Two principal strategies have been adopted. In the first, which can be called the "net gender gap approach," a multivariate equation predicting workplace authority is estimated in which the independent variables include gender plus a series of control variables thought to represent various nondiscrimination effects on authority (e.g., education or job experience). A significant coefficient for the gender variable in this equation is then taken as an indicator of the degree of likely discrimination in the *direct* allocation of workplace authority. Active, direct discrimination in the allocation of authority is thus treated as the "residual explanation" when other nondiscrimination explanations (represented by the control variables in the equation) fail to fully account for gender differences in authority. Of course, even if the gender coefficient were zero, this would not prove that discrimination is absent from the social processes generating overall gender differences in authority, since discrimination could systematically affect the control variables themselves. The net gender gap strategy, therefore, is effective only in assessing the extent to which discrimination operates *directly* in the process of allocating authority within organizations.[4]

The net gender gap strategy of analysis is always vulnerable, either because of possible misspecifications of the equation (important nondiscrimination causes of the gender gap are excluded from the analysis) or because of poor measurement of some of the variables. What looks like a residual "discrimination" gap, therefore, may simply reflect limitations in the data analysis. Nevertheless, if the gender gap in authority remains large after controlling for a variety of plausible factors, then this adds credibility to the claim that direct discrimination exists in the process by which authority is allocated. Versions of this approach to analyzing the gender gap in authority were adopted by Wolf and Fligstein (1979b), Jaffee (1989), and Reskin and Roos (1992). In all of these studies, a significant net gender gap in authority remains after extensive sets of controls were included in the equation.[5]

The second strategy for indirectly assessing the role of discrimination in generating gender differences in authority can be called the "gender interaction approach." In this strategy, separate multivariate equations predicting authority are estimated for men and women. Gender differences in the slopes of key variables are then interpreted as reflecting likely discrimination. The key idea here is that discrimination does not simply have additive effects on outcomes; it also affects the relative success with which women can convert various relevant individual attributes into authority. Thus, for example, Wolf and Fligstein (1979a), in the earliest quantitative modeling of gender differences in authority, observed that men get significantly higher authority returns to education than do women, even after controlling for variables like age and work experience. In general, research using this strategy has found that more of the overall difference in authority between men and women can be attributed to differences in the authority returns to factors like education or experience than to differences in the means between men and

[4] This approach resembles the strategy frequently used to study racial discrimination (Beck, Horan, and Tolbert 1978; Featherman and Hauser 1978) or gender discrimination in earnings (Treiman and Roos 1983; Rosenfeld and Kalleberg 1990).

[5] Wolf and Fligstein (1979b) control for education, experience, and tenure; Jaffe (1989) controls for SEI, education, marital status, children, work experience, race, age, and the sex composition of three-digit-code occupations; Reskin and Roos (1992), predicting the number of arenas of final decision-making among managers, control for education, firm tenure, hours worked, self-employment, organization size, managerial level, supervisory authority, percentage female in occupations, and census-designated managerial occupation.

women on these determinants of authority (Halaby 1979; Hill 1980; McGuire and Reskin 1993).

In the present research, we adopt the net gender gap strategy for two reasons. First, since our main concern is with cross-national comparisons, the gender-interaction approach would involve the analysis of three-way interaction terms (country × gender × independent variable). Because of our relatively small sample sizes, the standard errors of three-way interaction coefficients are typically large, even when quite large nominal differences appear across countries in the size of gender interactions. In all of the dozens of possible country contrasts in gender interactions in our data, only a few three-way interactions even approached conventional criteria for statistical significance. Second, with seven countries and a large array of independent variables, the gender-interaction approach becomes extremely complicated conceptually. Since this is the first cross-national analysis of the gender gap in authority, it seemed desirable to adopt the simpler net gender gap approach, even though the interaction approach is a more realistic way to conceptualize the process of discrimination.

## EMPIRICAL AGENDA

The data analysis revolves around four main tasks: documenting the cross-national variation in the gender gap in authority; diagnosing the proximate causes of the gender gap in *having* authority within countries; diagnosing the gender gaps in the *amount of* authority within countries; and exploring a variety of possible explanations of the cross-national variations in net gender gaps.

### *Cross-National Patterns in the Gender Gap in Authority*

Since there is little publicly available documentation of gender differences in authority, let alone cross-national variation in these differences, before we attempt to explore explanations of these cross-national variations it is important to describe as precisely as possible what needs explaining. We use three primary measures of authority: *sanctioning authority* (the ability to impose positive or negative sanctions on subordinates), *decision-making authority* (direct participation in policymaking decisions within an organization), and *formal position in the authority hierarchy.*

### *Explaining the Gender Gap in Having Authority within Countries*

The core idea of the net gender gap approach is to specify plausible explanations of gender differences in authority that do not involve direct discrimination in promotions and then to see if the gap disappears when these nondiscrimination factors are held constant in an equation predicting authority. We explore two general explanations of this sort of the gender gap in authority: (1) The gender gap is a result of differences in various personal attributes of men and women and of differences in their employment settings, and (2) the gender gap is a result of self-selection by women.

***(1) Compositional factors.*** If managers and employers make promotion decisions in a largely gender-neutral manner in response to various observable attributes of potential candidates, then the underrepresentation of women in hierarchies is largely the result of their underrepresentation in the pool of potential candidates or their possessing less adequate qualifications than men. For example, because it is more efficient for organizations to employ full-time managers than part-time managers, part-time employees are less likely to be in the pool of candidates for vertical promotions. Since a higher proportion of women than men work part time, the overall gender differences in authority could in part be the result of the different distributions of part-time employment by gender. Of course, this fact may itself be partially attributable to gender discrimination of various sorts. Nevertheless, if the gender gap in authority disappears after we control for such compositional factors, then the gap is unlikely to be the result of *direct* discrimination in the allocation of authority within the employment setting.

We explore three clusters of compositional factors: *firm attributes* (industrial sector, public versus private employment, firm size); *job attributes* (occupation, part-time employment, job tenure); and *personal attributes* (age, education, labor force interruptions).

To the extent that women are concentrated in firms with a low proportion of managers, or have job or personal attributes associated with low probabilities of managerial promotions, then once we control for these factors, the authority gap between men and women should decrease and perhaps even disappear.

It could be objected that some of these compositional factors are in part consequences of discrimination in promotions rather than indirect causes of the gender gap. For example, women may have shorter average job tenure because they have less attachment to a given employer as a result of exclusion from promotion possibilities. Exclusion from positions of authority could thus explain some of these compositional factors rather than vice versa. We have no way in the present data analysis to investigate this possibility. Nevertheless, if the inclusion of these diverse controls does *not* significantly reduce the gender gap in authority, then this adds considerable weight to the claim that the gap is to a significant extent the result of direct discrimination in the allocation of authority positions.

***(2) Self-selection because of family responsibilities.*** Women in similar employment situations to men and with similar personal attributes to men may simply not want to be promoted into positions of authority as frequently as men, particularly because of family responsibilities. Given the array of feasible alternatives, women may prefer the "mommy track" within a career because of the reduced pressures and time commitment this entails, even though it also results in lowered career prospects, especially for vertical promotion. Again, this is not to deny that such preferences may themselves reflect the operation of oppressive gender practices in society. The gender division of labor in the household or the absence of affordable high quality childcare, for example, may block the options women feel they realistically can choose in the workplace. Nevertheless, self-selection of this sort is a different mechanism from direct discrimination in promotion practices.

Self-selection is especially difficult to measure. Unless direct data on the details of the promotion practices of employers and the career strategies and preferences of employees are available, it is hard to rule out self-selection as part of the process that generates gender differences in outcomes. Nevertheless, we can get some purchase on this problem by examining the interactions between gender and certain variables likely to be closely linked to self-selection. The most often cited form of gender self-selection centers around the choices women make with respect to family responsibilities and paid work responsibilities. Therefore, we treat the presence of such responsibilities as additional "compositional factors." However, unlike the simple compositional arguments, which are based on additive models of compositional effects, the arguments for self-selection require an interactive model. For example, the self-selection model claims that the presence of children in the household leads women to select themselves out of competition for authority promotions whereas it does not for men. This means that in a model predicting authority, the coefficient for a measure of the presence of children would be negative for women but zero or perhaps positive for men, if the presence of children increases the incentive for men to seek promotions because of increased financial needs of the family. To assess the presence of such self-selection, therefore, we have to estimate a model that includes gender interactions with the self-selection variables (as well as the additive compositional effects) and then assess the gender gap in authority at appropriate values for the interacting independent variables. For this purpose, we include three variables that are plausibly linked to self-selection: marital status, the presence of children in the household, and the percentage of housework performed by the husband.

Two objections to this strategy can be raised. First, what looks like self-selection may really be just another form of discrimination and exclusion. The presence of children, for example, may constitute a criterion that employers use to assign women to a "mommy track" rather than a condition that leads women to choose not to compete for promotions. We cannot rule out these possibilities. *If* the authority gap is significantly reduced after controlling for these alleged self-selection indicators, we may simply be tapping mechanisms through which employers deny women promotions.

Second, as in the case of the additive compositional controls, some of these family-responsibility variables may be the *partial result* of the relationship of women to authority. For example, women in positions of authority may, as a result of increased work pressures, do less housework and thus have a more egalitarian division of labor in the home. Therefore, living in an inegalitarian household may not explain why women do not have authority, but rather be the result of their not having authority. We have no way of exploring such reciprocal effects, and thus our interpretation of these interaction terms must be viewed as tentative.

### *The Gender Gap in the Amount of Authority within Countries*

One popular image of the problem of workplace discrimination is the "glass ceiling": although affirmative action and other challenges to gender discrimination may have facilitated women getting through the door of the authority hierarchy, an invisible barrier blocks their vertical movement up the hierarchy, particularly to top positions (Morrison and Glinow 1990; Garland 1991; Jacobs 1992; Reskin and Roos 1992). If this image is accurate, then in general the gender gap in the *amount* of authority men and women have once they get into the authority hierarchy should be *greater* than the gender gap in *simply having* authority.

We explore gender differences in the amount of authority in two ways. First, we construct a variable, referred to as the *amount-of-authority scale*, that combines the three measures of authority into a 10-level scale. We then examine the net gender gap in this variable in the same the way we examine the net gender gap in the probability of having authority.

Second, we explore a weak form of the glass-ceiling hypothesis more directly by examining the gender gap in authority separately for those people who have made it into the authority hierarchy. The expression "the glass ceiling" is sometimes used restrictively to refer to barriers at the top of authority hierarchies, not simply barriers to promotion out of lower levels of the hierarchy. Because of sample size limitations, we cannot examine gender differences at the highest levels of the formal authority hierarchy. We therefore examine the gender gap in the amount of authority people have conditional upon them having any authority. If the gender gap in amount of authority for people in the authority hierarchy is the same or smaller than that for the sample as a whole, then this undermines the glass-ceiling hypothesis that gender discrimination is less intense at the port of entry into the hierarchy than it is in promotions within it. This would not, of course, imply that gender discrimination was absent in vertical promotions within authority hierarchies, only that such discrimination is no more intense than the discrimination that affects entry into the hierarchy.

### *Explaining Cross-National Variation in the Gender Gap*

We pursue two different strategies for exploring possible explanations for the cross-national variations in the gender gap in authority. First, we compare the differences across countries in the *gross* gender gaps in authority (i.e., country-specific gender gaps not controlling for compositional effects) with the differences across countries *net* of the various compositional factors. If a significant portion of the gender gap within countries is explained by such compositional factors, then these factors may also account for much of the variation across countries in the gender gap. For example, women in Sweden are much more likely to be employed in part-time work than are women in the United States, and employees in part-time work are much less likely to have workplace authority. Thus, the larger gross gender gap in authority in Sweden compared to that in the United States may be mainly a result of this difference in employment patterns.

Second, if significant differences across countries in the gender authority gap remain after controlling for all of the compositional factors, we then examine in a somewhat less formal way several macrosocial explanations by comparing the rank-order of the seven countries on the net gender gap in authority with their rank-order on the following variables:

***(1) Gender ideology.*** All things being equal, a smaller gender gap in workplace authority is expected in societies with relatively

egalitarian gender ideologies compared to societies with less egalitarian ideologies.

*(2) Women's reproductive and sexual rights.* Although women in all democratic capitalist states (except some cantons in Switzerland) now have equal voting rights, countries differ on other issues that bear on the rights of women with respect to sexual and reproductive issues, such as rights to abortion, rights to paid pregnancy and maternity leave from work, and laws concerning sexual violence, abuse, and harassment. Although such state-backed rights and provisions may not directly prevent discriminatory practices in promotions, they may contribute to the political climate in ways that indirectly affect the degree of inequality in promotions and thus in workplace authority.

*(3) Gender gap in earnings.* Societies with a relatively small gender gap in earnings may also be expected to have a relatively small gender gap in workplace authority. The argument is not that greater equality in the earning capacities of men and women is a *cause* of a smaller authority gap (if anything, a smaller gender gap in authority could itself contribute to narrowing the gender gap in earnings), but rather that a society that fosters low levels of income inequality between men and women is also likely to foster low levels of authority inequality. Small differences in earnings by gender would therefore be taken as an indicator of an underlying institutional commitment to gender equality as such.

*(4) Occupational sex segregation.* The logical relationship between occupational sex segregation and gender inequalities in workplace authority is complex. Clearly, the probability of having authority varies from occupation to occupation, and thus occupational sex segregation can reasonably be viewed as one likely cause of inequalities in authority. However, if norms against women supervising men are strong and unchanging, then, in a limited way, occupational sex segregation might open up managerial positions for women in so far as it increases the chances of women being able to supervise only women. Furthermore, promotions into positions of authority often entail changes in occupational titles, particularly for occupations that are formally called "managerial occupations." Thus, barriers to acquiring workplace authority for women may contribute to occupational sex segregation. In examining variations across countries in occupational sex-segregation, therefore, we are not suggesting that this variation is itself a direct cause of variation in the net gender gap in authority. Rather, as in the case of the earnings gap, we treat occupational sex segregation as an indicator of underlying processes that shape gender inequalities in the society.

*(5) The proportion of the labor force with authority.* There are two reasons for expecting the gender gap to be greater in countries in which a relatively small proportion of the labor force holds positions of authority, than in countries with proportionately many authority positions. First, it is more difficult for employers and top executives to adequately fill authority positions with men in countries in which a high proportion of the employees of organizations have authority. In terms of supply and demand, therefore, employers have an incentive to fill a higher proportion of authority positions with women in countries with a large proportion of managerial and supervisory positions in the job structure. Such recruitment, in turn, means that women are likely to develop social networks that facilitate subsequent recruitment and promotion of women (Kanter 1977).

Second, if, as some scholars argue (Bergman 1986; Reskin 1988; Acker 1990), the gender gap in authority is at least partially a result of men's interests in maintaining male predominance in the authority hierarchy, then the incentive for men to try to do so would be stronger where there are relatively few such positions to go around. This need not imply a coordinated conspiracy by men. Rather, when authority is a scarce good, individual male managers will be concerned with protecting their networks and reducing competition for managerial positions, and one by-product of this will be the exclusion of women. A large managerial population, therefore, increases the incentive for the heads of organizations to recruit women into managerial positions, and reduces the incentive for male managers to engage in restrictive practices to protect their positions.

*(6) The women's movement and political culture.* If sex discrimination plays a significant role in the exclusion of women from positions of responsibility and power within

work, then it would be expected that one determinant of the erosion of such sexist practices would be the extent and forms of women's organized challenge to these practices. Two issues are especially important. First, the *overall strength* of the women's movement is crucial for its ability to challenge the gender gap in workplace authority. Second, and perhaps less obvious, the *ideological orientation* of the women's movement may shape the extent to which it directs its energies toward workplace discrimination. Broadly speaking, we can distinguish women's movements that are primarily concerned with directly improving women's economic and social welfare and women's movements that are more concerned with equalizing women's and men's access to positions of social power through which welfare is distributed. The former kind of movement, often linked to social democratic politics, focuses on the provision of services and benefits of interest to women; the latter kind of movement, more associated with liberal politics, focuses on questions of rights, opportunities, and discrimination. This reasoning suggests the prediction that, all things being equal, the gender gap in authority should be lower in countries with a liberal rights-oriented women's movement than in those with a social democratic women's movement.

## DATA

The data for this analysis come from the Comparative Project on Class Structure and Class Consciousness (Wright 1989), which consists of a series of replicated surveys on a broad array of questions concerned with social relations in production and related matters carried out in the first part of the 1980s. With a few minor variations, exactly the same questions on authority were asked in all countries in the sample. The basic properties of the seven samples are described in Table 1. Throughout the analysis we restrict the national samples to employees in the labor force, thereby excluding respondents who are self-employed, unemployed, or outside the labor force. Self-employed people with employees—employers—can be considered to have authority within the workplace, but since the causal processes surrounding gender differences in authority among employees differ from gender differences in property ownership, we exclude the self-employed from this analysis.

**Table 1. Properties of the Sample**

| Country | Interview Method | Sample Size | Date |
|---|---|---|---|
| United States | Telephone | 1,498 | 1980 |
| Australia | Personal | 1,195 | 1986 |
| United Kingdom | Personal | 1,770 | 1984 |
| Canada | Personal | 2,577 | 1982 |
| Sweden | Telephone/mail | 1,145 | 1980 |
| Norway | Personal | 2,532 | 1982 |
| Japan[a] | Personal | 823 | 1987 |

[a] Japanese sample is for Tokyo and environs and covers approximately 40 percent of the Japanese population.

## VARIABLES

The general operational criteria for the variables are presented in Tables 2a and 2b.

### *Authority*

We study workplace authority using measures of three distinct dimensions of authority.

***(1) Formal hierarchical position.*** Employee respondents were asked: "Which of the following best describes the position which you hold within your business or organization? Would it be a managerial position, a supervisory position, or a nonmanagement position?" Respondents who answered "managerial" were then asked, "Would that be a top, upper, middle, or lower managerial position?" Taking these two questions together generates a six-category variable going from top manager to nonmanagement positions. The variable *formal position* is a dichotomy with a value of 1 if a person is at least a supervisor in the formal hierarchy and 0 if the person is in a nonmanagement position.

***(2) Sanctioning authority.*** This variable refers to the capacity of individuals to impose rewards and punishments on subordinates. Respondents were first asked a general filter question: "As an official part of your main job do you supervise the work of other employees or tell other employees what work to do?" If respondents said "yes," they were

**Table 2a. Variables Used in the Analysis**

| Variable | Definition |
|---|---|
| AUTHORITY VARIABLES | |
| Sanctioning authority | Has direct influence on pay, promotions, or punishments of subordinates (dummy variable) |
| Decision-making authority | Directly participates in policy decisions in the workplace (not just provides advice) (dummy variable) |
| Formal position | Occupies a position in the formal authority structure of the workplace: supervisor, lower manager, middle manager, upper manager, or top manager (dummy variable) |
| Authority dichotomy | Positive response to any two of the three dimensions of authority above (dummy variable) |
| CONTROL VARIABLES | |
| *Firm Attributes* | |
| Industry | Dummy variables distinguishing extractive, transformative (manufacturing, transportation, utilities) and service sectors; contrast category is the transformative sector |
| Prive versus state employment | Dummy variable distinguishing public and private sector employees (1 = private) |
| Firm size[a] | Continuous variable measuring respondent's estimate of the number of employees in the firm (not the establishment) in which the respondent is employed (for private sector only) |
| *Job Attributes* | |
| Occupation | Three dummy variables: upper white collar, lower white collar, upper manual; omitted category is lower manual |
| Full-time | dummy variable, 1 = works at least 30 hours/week, 0 = less than 30 hours per week |
| *Personal Attributes* | |
| Education | Years of education |
| Age | Age in years |
| Continuous labor force participation[b] | Dummy variable, 0 = interrupted labor force history, 1 = continuous labor force participation since first full-time job after completing education |
| Tenure[c] | Years employed at current employer |
| *Household Attributes* | |
| Children | Dummy variable, 1 = children present in the home, 0 = no children living in the home |
| Married | Dummy variable, 1 = married, 0 = not married |
| Housework[d] | Husband's contribution to five housework tasks, measured by the respondent's report of the percentage of total time for each task performed by the husband (see Wright et al. 1992 for details) |

[a] Not available for Australia

[b] Not available for Australia, Japan, and Sweden

[c] Not available for Sweden and the United Kingdom

[d] Not available for Japan and the United Kingdom

**Table 2b. Amount-of-Authority Scale**

| Value | Authority Dichotomy | Sanctioning Authority | Position in Formal Hierarchy |
|---|---|---|---|
| 0 | no | — | — |
| 1 | yes | yes | 0 = nonmanagement |
| 2 | yes | no | 1 = supervisor |
| 3 | yes | yes | 1 = supervisor |
| 4 | yes | no | 2 = lower manager |
| 5 | yes | yes | 2 = lower manager |
| 6 | yes | no | 3 = middle manager |
| 7 | yes | yes | 3 = middle manager |
| 8 | yes | no | 4,5 = upper or top manager |
| 9 | yes | yes | 4,5 = upper or top manager |

then asked a series of detailed questions about their ability to impose sanctions of various kinds on subordinates: granting a pay raise or promotion to a subordinate, preventing a subordinate from getting a pay raise or promotion because of poor work or misbehavior, firing or temporarily suspending a subordinate. We define a person as having sanctioning authority if they say that they have any influence on any of these three forms of sanctioning. In the U.S. sample, about 63 percent of people who said they supervised other employees on the job also claimed to have sanctioning authority. The variable *sanctioning authority* is given a value of 1 if the respondent has such powers and 0 if the respondent does not.

***(3) Decision-making authority.*** This variable concerns the direct participation of respondents in organizational policymaking decisions. Respondents were first asked a filter question about decision-making responsibilities: "The next question concerns policymaking at your workplace; that is, making decisions about such things as the products or services delivered, the total number of people employed, budgets, and so forth. Do *you* participate in making these kinds of decisions or even provide advice about them?" Individuals who responded "yes" were then asked more focused questions about their participation in five specific kinds of policy decisions: to increase or decrease the total number of people employed in the place where you work; to significantly change the products, programs, or services delivered by the organization; to change the policy concerning the routine pace of work or amount of work performed in your workplace as a whole; to significantly change the basic methods or procedures of work used in a major part of the workplace; to affect the size or distribution of the budget at the place of work. For each of these decisions, respondents were asked exactly how they participate in the decision-making process: make the decision on your own authority; participate as a voting member of a group that makes the decision; make the decision subject to approval; provide advice to the person who actually makes the decision. The variable *decision-making authority* has a value of 1 if the respondent directly participates in any of these decisions and 0 if they only provide advice for decisions or do not participate at all.[6]

Sanctioning authority and decision-making authority are not equivalent to the formal hierarchy question above. A person can have authority by the sanctioning criterion or the decision-making criterion and yet not be in the "formal" authority hierarchy or, alternatively, be in the formal hierarchy without having sanctioning or decision-making authority. For example, in the United States, 15 percent of the men and about 30 percent of the women who reported that they were top or upper managers on the formal hierarchy measure indicated that they lacked sanctioning authority, and about 20 percent of men and 40 percent of women in such positions said that they did not participate in any decision-making. Similar results appear in other countries.

These three dimensions were used to form two constructed variables:

***(4) The authority-dichotomy variable.*** This variable has a value of 1 if the respondent has a value of 1 *on any two of the three dimensions,* and 0 otherwise. In effect, the

[6] Respondents who said "yes" to the filter question and also indicated that they did *not* participate in any of these policy decisions were then asked an open-ended question about the kinds of decisions in which they participated. If any of these responses indicated involvement in a substantial area of decision-making, they were also considered decision-makers. Few respondents in any country gave open-ended answers to this question.

three aspects of authority are treated as multiple indicators of "true" authority. The authority-dichotomy variable thus distinguishes between those individuals who we are confident have authority and those who almost certainly do not.

*(5) Amount-of-authority scale.* This variable attempts to tap variation in the "amount" of authority controlled by the respondent. The idea that authority varies in amount is complex, since the meaning of having high, middle, or low "amounts" of authority depends on the details of different organizational settings. The number of distinct kinds of decisions in which a person is involved, for example, may not be a good indicator of how much authority a person has, since certain kinds of decisions may be more or less important in different kinds of organizations, and the division of labor among managers can be significantly affected by such things as organizational size. In our data, the measure most clearly linked to the amount of authority is formal hierarchical position since, *within a given hierarchy,* the ability to issue binding orders generally increases as one moves from bottom to top.[7] The *amount-of-authority scale,* therefore, relies more heavily on the formal hierarchical position measure than on the other two dimensions of authority. Respondents who receive a 0 on the authority dichotomy variable also get a 0 on the amount-of-authority scale. Respondents who have authority on the dichotomy are then assigned values of 1 to 9 on the amount-of-authority scale depending primarily on their formal position in the hierarchy and secondarily on their possession of sanctioning authority (Table 2b).

### *Control Variables*

Four groups of control variables are used to explore the possibility that gender differences in authority are the result of gender differences in firm attributes, job attributes, personal attributes, or household attributes. Most of these variables are available in an identical form for all seven countries in our analysis, but a few are missing from some countries. We therefore always conduct two separate analyses—one using only variables that are present for every country, and one including all available variables for each country. Since the results for these two analyses are virtually identical, we only report the coefficients for the analysis using variables available for every country.

We use part-time versus full-time employment as a dichotomous variable rather than total hours worked, since work hours extended beyond normal full time are in part a consequence of being a manager rather than a determinant of the chances of becoming a manager. We also use a relatively crude four-category occupational classification to avoid problems of circularity that are introduced if a more refined set of categories were used. Remember that our definition of *authority* is operationally independent from the formal "occupation" in which a person is employed. Many people in lower white-collar occupations have significant amounts of authority, when authority is measured directly in terms of the powers people exercise on the job. Only a minority of people with high levels of authority are in jobs that bear the occupational title "manager" (and not all people in jobs that are called "manager" have authority by our criteria). Still, if we used an occupational variable with a higher level of disaggregation, this would create a category like "managerial occupations" which is too closely tied conceptually to the dependent variable to be treated as a compositional control.

One important variable that probably affects promotion prospects—total labor market experience—was not available in most countries. We thus have to rely on job tenure with current employer, age, and labor force interruptions to tap labor market experience. Since these variables, taken together, are highly correlated with total labor market experience, it seems unlikely that the omission of a direct measure of experience seriously compromises our results.

[7] Of course, whether an "upper manager" in one organization has more or less authority than a "middle manager" in a different organization is less clear. Does a top manager in a small firm have more or less authority than a middle manager in General Motors? This problem of equivalence in meanings across organizations may introduce some error into our measures since the people in our sample who claim to be "top" or "upper" managers are likely to be employed, on average, in smaller organizations than those who claim to be middle or lower managers.

### *Cross-National Comparability of Authority Measures*

Although identical questions were asked in each of the national surveys, the *meaning* of the questions may differ significantly cross-culturally. For example, it could be the case that in some countries the label "supervisor" in the formal hierarchy question is frequently used as a largely honorific title implying no real powers, whereas in other countries it is used only if real powers are present. If women are more likely than men to get the honorific supervisor title in some countries but not others, then the gender gap in authority might appear smaller in the country with honorific supervisor titles than in the country where the term "supervisor" is used more restrictively.

Although we cannot be certain that our results are not affected by such shifts in the meaning of questions, there are three reasons why we feel this is not a significant problem in our analyses. First, two of our three measures of authority (sanctioning and decision-making) ask respondents what they actually do on their jobs, not what formal labels describe their jobs. These questions should be less vulnerable to problems of meaning. Second, in our two constructed measures of authority, a person must satisfy at least two of the three authority criteria, which means that the bias would have to work in the same direction on two of the measures in order to create a biased overall measure. Finally, the cross-national differences in the distributions of sanctioning authority *within* levels of the formal hierarchy variable indicate that, if anything, countries with the *largest* gender gap are the countries in which the formal hierarchy titles have the *least* substantive content. The United States and Australia have relatively small gender authority gaps compared to the two Scandinavian countries. Yet over 50 percent of the women in supervisor positions in the formal hierarchy in these countries say they have sanctioning authority, whereas in Norway and Sweden—countries with significantly larger gender gaps in authority—the figures are only 25 percent and 15 percent respectively. If anything, then, the "supervisor" title appears to have a *more* honorific meaning in countries with a large gender gap in authority than in countries with a smaller gender gap. In any event, our measures of authority are more comparable across countries than any others we know of, and thus this is a plausible set of data for exploring cross-national variation in gender patterns in workplace authority.

## METHOD OF ANALYSIS

The basic analytical strategy for the dichotomous dependent variables involves using logistic regression to predict the log odds of having workplace authority. To determine the basic zero-order gender gap in authority Model 1 estimates, separately for each country, logistic regressions in which gender is the only independent variable:

$$\log \frac{\Pr(Authority=1)}{\Pr(Authority=0)} = a + b_1 Female, \qquad (1)$$

where Pr(*Authority* = 1) is the probability of a person having authority as defined by our various measures, Pr(*Authority* = 0) is the probability of a person not having authority, and *female* is a dummy variable. The significance of the coefficient for gender in this model is a test of whether men and women differ significantly in their chances of having managerial authority.

To evaluate the net gender gap, Model 2 adds the control variables to test whether the bivariate relationship between gender and authority reflects other factors that are correlated with gender and managerial authority:

$$\log \frac{\Pr(Authority=1)}{\Pr(Authority=0)} = a + b_1 Female + \sum_i b_i X_i, \qquad (2)$$

where the $X_i$ are the firm attribute, job attribute, and person attribute variables listed in Table 2a.

In interpreting the logistic regressions, we focus on the coefficients for gender from the bivariate and multivariate equations. Since gender is a dummy variable (1 = female), the coefficient indicates the difference between women's and men's logged odds of having managerial authority. Taking the antilog of the coefficient yields an odds ratio indicating the relative odds of a woman having managerial authority compared to a man. The "gender gap" can then be defined as 1 minus

the antilog of the logit coefficient for gender: if this equals 0, there is no gender gap in authority; if it equals 1, no women at all have authority. In Model 1 we will refer to this as the "gross gender gap" and in Model 2 as the "net gender gap" in workplace authority.

Our analysis of the *amount-of-authority* scale uses cumulative logistic (also called ordered logistic) regression. This method has an advantage over ordinary least squares (OLS) regression of not assuming equal intervals between the levels in the dependent variable and of generating a coefficient for gender that is conceptually analogous to the coefficients in the logistic regressions for the authority dichotomy. The cumulative logit for a dependent variable with $J$ ordered categories is defined as:

$$L_j = \log \frac{P_1 + \ldots + P_j}{P_{j+1} + \ldots + P_J}, \quad (3)$$

where $j = 1, \ldots, J-1$, and $P_j$ is the probability of being in category $j$ of the dependent variable (Agresti 1990:321). The multivariate model for the net differences in the amount of authority for men and women is then estimated according to:

$$L_j = a_j + b_1 Female + \sum_i b_i X_i, \quad (4)$$

where $j = 1, \ldots, J-1$. Each logit is a function of a separate intercept and a common set of slope coefficients. The coefficient of the gender variable in equation 4 is thus like a weighted average of the coefficients for gender in a series of separately calculated logit regressions using equation 2 in which the dependent variable—the amount-of-authority scale in this case—is successively dichotomized at each possible point.

Since we are only interested in the coefficients for gender, we do not present the coefficients for the control variables, except in the analysis of self-selection where some of these coefficients are important for the interpretation of the results.

## RESULTS

### *Gross Gender Differences in Having Authority*

Tables 3a and 3b present the percentage of men and women who have different kinds of authority for the seven countries. Figure 1 presents the gender gaps in authority (1 minus antilogs of the coefficients for gender) for the authority dichotomy. Table 4 presents the coefficients for gender from the logistic regression analysis of gross gender differences in each of our measures of authority using Model 1.[8] Several results are striking.

First, in each country and for each measure of authority, there is a significant gender gap: Women are less likely than men to be in the formal authority hierarchy, to have sanctioning power over subordinates, or to participate in organizational policy decisions.

Second, as shown for Model 1 in Figure 1 and Table 4, there is statistically significant cross-national variation in the degree of gender inequality in authority. On each measure of authority, the United States and Australia have the smallest gender gap in authority, and Japan has by far the largest gap.[9] On the basis of the exponentiated gender gap coefficients, in Japan the odds of a woman having authority are only between 3 percent and 9 percent the odds of a man having authority (depending on the measure), whereas the odds of a woman in the United States or Australia having authority are generally around 50 percent to 60 percent of a man's odds. The other two English speaking countries—Canada and the United Kingdom—tend to have larger gender gaps in authority than do the United States and Australia, but smaller gaps than the two Scandinavian countries, Sweden and Norway.[10] Although in many respects the Scan-

[8] The tests for differences between countries in the coefficients for gender in the models predicting sanctioning authority and formal position are virtually identical to the results for the aggregated authority dichotomy. Fewer statistically significant differences between countries are found when predicting the decision-making variable.

[9] The gender gap in authority in Japan as estimated by our direct measures of authority is even greater than the 9 to 1 ratio estimated by Brinton (1988:311) using managerial occupations as the criterion.

[10] In Model 1 for the authority dichotomy, the Canadian coefficient for gender is significantly bigger than the coefficients for the United States and Australia (but not for the United Kingdom), indicating a larger gender gap in authority. While the coefficient for the United Kingdom is nearly as large as the coefficient in Canada, it is not significantly different (at the $p < .05$ level) from the U.S. and Australian coefficients.

**Table 3a. Percentage Distribution of Men and Women with Authority, by Type of Authority: Seven Countries**

| Country | Decision-Making Authority | | Sanctioning Authority | | Formal Position | | Authority Dichotomy | | Number of Respondents | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Men | Women | Men | Women | Men | Women | Men | Women | Men | Women |
| United States | 22.3 | 13.1 | 32.1 | 20.5 | 37.6 | 25.9 | 29.9 | 18.7 | 629 | 549 |
| Australia | 37.0 | 29.9 | 37.9 | 23.4 | 50.4 | 39.9 | 40.3 | 27.4 | 543 | 463 |
| United Kingdom | 24.0 | 12.3 | 27.9 | 10.9 | 38.7 | 22.4 | 29.5 | 13.6 | 594 | 457 |
| Canada | 26.1 | 14.3 | 25.0 | 10.2 | 35.4 | 18.8 | 26.6 | 11.1 | 785 | 639 |
| Sweden | 19.7 | 10.8 | 17.4 | 4.7 | 34.1 | 16.3 | 21.9 | 5.3 | 549 | 436 |
| Norway | 26.6 | 12.7 | 23.3 | 4.1 | 39.4 | 10.7 | 29.4 | 5.4 | 827 | 588 |
| Japan | 28.5 | 3.5 | 34.0 | 2.9 | 47.0 | 3.5 | 38.3 | 1.7 | 253 | 173 |

**Table 3b. Percentage Distribution of Men and Women, by Position in the Formal Authority Hierarchy: Seven Countries**

| Country | Position in the Formal Hierarchy | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Top Manager | | Upper Manager | | Middle Manager | | Lower Manager | | Supervisor | | Nonmanager/ Supervisor | | Number of Respondents | |
| | Men | Women | Men | Women | Men | Women | Men | Women | Men | Women | Men | Women | Men | Women |
| United States | 3.3 | 2.8 | 4.5 | 1.5 | 5.7 | 3.6 | 3.3 | 2.2 | 20.7 | 15.9 | 62.4 | 74.1 | 622 | 539 |
| Australia | 3.0 | 1.9 | 5.9 | 2.1 | 8.7 | 4.1 | 2.4 | 2.6 | 30.3 | 29.1 | 49.6 | 60.1 | 492 | 419 |
| United Kingdom | 3.9 | .9 | 1.2 | .2 | 8.6 | 1.8 | 4.9 | 1.1 | 20.2 | 18.4 | 61.3 | 77.6 | 594 | 456 |
| Canada | 3.7 | .9 | 5.2 | .9 | 5.4 | 3.0 | 2.3 | 2.0 | 18.9 | 11.9 | 64.6 | 81.2 | 785 | 639 |
| Sweden | 1.9 | 1.0 | 2.3 | .0 | 6.2 | 1.7 | 4.9 | 2.6 | 18.8 | 11.1 | 65.9 | 83.7 | 531 | 416 |
| Norway | 5.0 | .9 | 5.5 | .9 | 5.1 | .5 | 0.5 | .2 | 23.4 | 8.3 | 60.6 | 89.3 | 822 | 581 |
| Japan | 1.2 | .0 | 4.3 | .0 | 2.8 | .0 | 1.6 | .0 | 37.2 | 3.5 | 53.0 | 96.5 | 253 | 173 |

**Table 4. Logistic Coefficients for Gender from Regression Predicting the Odds of Women Having Work Authority Relative to Men: Model with No Controls, Seven Countries[a]**

| | Dimensions of Authority | | | | | | Constructed Measures of Authority | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Decision-Making Authority | | Sanctioning Authority | | Formal Authority Position | | Authority Dichotomy | | Amount-of-Authority Scale | |
| Country/N | Logistic Coefficient | Gender Gap | Logistic Coefficient | Gender Gap | Logistic Coefficient | Gender Gap | Logistic Coefficient | Gender Gap | Logistic Coefficient | Gender Gap |
| United States | −.64* | .47 | −.60* | .45 | −.54* | .42 | −.62* | .46 | −.63* | .47 |
| N = 1,178 | (.16) | | (.14) | | (.13) | | (.14) | | (.14) | |
| Australia | −.32* | .27 | −.70* | .50 | −.43* | .35 | −.58* | .44 | −.64* | .47 |
| N = 1,006 | (.14) | | (.14) | | (.14) | | (.14) | | (.13) | |
| United Kingdom | −.82* | .56 | −1.15* | .68 | −.79* | .55 | −.98* | .62 | −1.06* | .65 |
| N = 1,051 | (.17) | | (.18) | | (.14) | | (.16) | | (.16) | |
| Canada | −.75* | .53 | −1.08* | .66 | −.86* | .58 | −1.07* | .66 | −1.10* | .67 |
| N = 1,424 | (.14) | | (.16) | | (.13) | | (.15) | | (.15) | |
| Sweden | −.70* | .50 | −1.46* | .77 | −.97* | .62 | −1.61* | .80 | −1.57* | .79 |
| N = 985 | (.20) | | (.26) | | (.16) | | (.24) | | (.24) | |
| Norway | −.91* | .60 | −1.95* | .86 | −1.70* | .82 | −1.98* | .86 | −1.98* | .86 |
| N = 1,415 | (.15) | | (.22) | | (.15) | | (.20) | | (.20) | |
| Japan | −2.40* | .91 | −2.85* | .94 | −3.21* | .96 | −3.56* | .97 | −3.58* | .97 |
| N = 426 | (.44) | | (.47) | | (.43) | | (.60) | | (.60) | |

* $p < .05$

[a] Significance levels for differences (two-tailed tests) between rank-ordered countries on aggregate authority measures:

*Overall Authority Dichotomy* (*p*-value of differences in logits between countries)

[.03]
Australia — [.85] — U.S.A. — [.09] — U.K. — [.69] — Canada — [.05] — Sweden — [.24] — Norway — [.01] — Japan
[.06]

*Amount of Authority Scale* (*p*-value of differences in cumulative logits between countries)

[.001]
U.S.A. — [.92] — Australia — [.03] — U.K. — [.76] — Canada — [.10] — Sweden — [.19] — Norway — [.02] — Japan

*Explanation:* The countries are ranked from small to large according to gender gaps in authority. The numbers in square brackets represent the *p*-values for the differences between adjacent rank-ordered countries in their gender coefficients in the relevant equation. In situations in which the *p*-value does not fall below the $p < .05$ threshhold for adjacent countries in the rank order, the closest pair of countries whose coefficients differ at the $p < .05$ level is indicated above or below the list of countries. In all cases the significance levels are internally consistent across rank-orders.

*Note*: Numbers in parentheses are standard errors. The gender gap is defined as 1 minus the antilog of the coefficient.

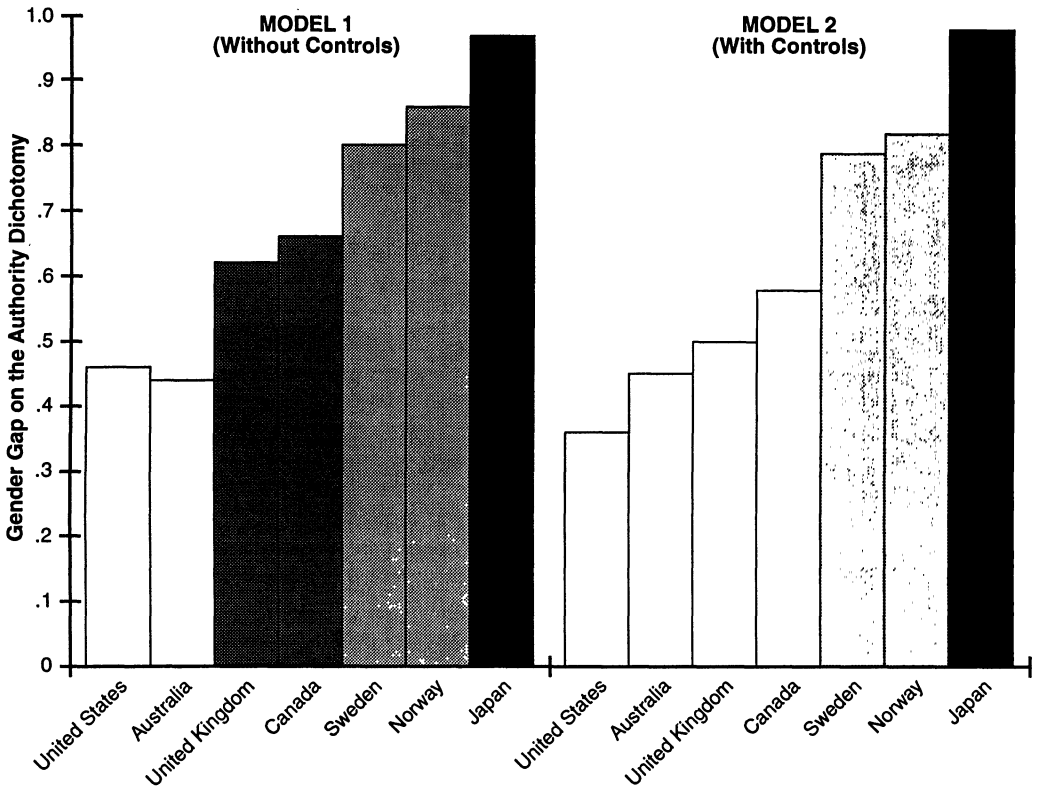


**Figure 1. The Gender Gap in Authority: Seven Countries in the 1980s**

*Note*: Bars of different shades indicate differences significant at $p < .05$ or better, with two exceptions: For Model 1, the differences between the United Kingdom and Australia ($p < .06$) and between the United Kingdom and the United States ($p < .09$) are *not* significant.

dinavian countries are among the most egalitarian in the world in terms of both class and gender relations, with respect to the distribution of authority in the workplace they are clearly less egalitarian than the four English-speaking countries in our analysis.

Third, while a gender gap appears for all of our measures of authority, it is generally somewhat more muted for decision-making authority than for sanctioning authority and position in the formal hierarchy. In all countries except the United States, the gender gap is considerably smaller for decision-making authority than for the other two measures, and the cross-national variation is less significant. While this may reflect a weakness in our measure of decision-making, it may also indicate that the most salient issue in gender inequalities in authority is direct power over people rather than organizational responsibilities as such.

### *Net Gender Gap in Authority*

Table 5 presents the coefficients for gender for Model 2. These coefficients show the gender gap in authority net of compositional differences between men and women on the other variables in the equation.

The results in Table 5 and Figure 1 clearly demonstrate that relatively little of the gross differences in authority among men and women in any country can be attributed to gender differences in these control variables. The biggest compositional effects seem to be in the United States and the United Kingdom, where roughly 20 percent of the total gender gap in authority is closed when controls are added.[11] Figures for the other coun-

[11] If compositional factors accounted for the gender gap, then the gender gap measure (1 – exponentiated gender coefficient) in Model 2

**Table 5. Logistic Coefficients for Gender for Regression Predicting the Odds of Women Having Work Authority Relative to Men: Model with Controls, Seven Countries[a]**

| | Dimensions of Authority | | | | | | Contructed Measures of Authority | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Decision-Making Authority | | Sanctioning Authority | | Formal Authority Position | | Authority Dichotomy | | Amount of Authority Scale | | Percent Reduction in Gross Gender Gap for Authority Dichotomy when Controls are Added[b] |
| Country | Coefficient | Net Gender Gap | Coefficient | Net Gender Gap | Coefficient | Net Gender Gap | Coefficient | Net Gender Gap | Coefficient | Net Gender Gap | |
| United States | −.55* | .42 | −.51* | .40 | −.48* | .38 | −.45* | .36 | −.51* | .40 | 22% |
| | (.19) | | (.17) | | (.17) | | (.18) | | (.17) | | |
| Australia | −.51* | .40 | −.66* | .48 | −.44* | .35 | −.60* | .45 | −.70 | .50 | −1% |
| | (.17) | | (.17) | | (.17) | | (.17) | | (.16) | | |
| United Kingdom | −.72* | .51 | −.96* | .62 | −.59* | .44 | −.70* | .50 | −1.02 | .64 | 19% |
| | (.22) | | (.22) | | (.20) | | (.21) | | (.21) | | |
| Canada | −.84* | .57 | −.80* | .55 | −.77* | .54 | −.87* | .58 | −.93 | .61 | 12% |
| | (.17) | | (.18) | | (.16) | | (.18) | | (.17) | | |
| Sweden | −.85* | .57 | −1.24* | .71 | −.98* | .62 | −1.54* | .79 | −1.51 | .78 | 1% |
| | (.24) | | (.29) | | (.21) | | (.27) | | (.27) | | |
| Norway | −.95* | .61 | −1.53* | .78 | −1.44* | .76 | −1.70* | .82 | −1.68 | .81 | 5% |
| | (.18) | | (.25) | | (.18) | | (.22) | | (.22) | | |
| Japan | −2.12* | .88 | −2.51* | .92 | −3.29* | .96 | −3.73* | .98 | −3.65 | .97 | −1% |
| | (.52) | | (.52) | | (.53) | | (.76) | | (.75) | | |

* $p < .05$

[a] Significance levels for differences (two-tailed tests) between rank-ordered countries on aggregate authority measures:

*Overall Authority Dichotomy* (*p*-value of differences in logits between countries)

U.S.A. — [.54] — Australia — [.71] — U.K. — [.55] — Canada — [.04] — Sweden — [.65] — Norway — [.01] — Japan

*Amount of Authority Scale* (*p*-value of differences in cumulative logits between countries)

U.S.A. — [.82] — Australia — [.22] — U.K. — [.87] — Canada — [.09] — Sweden — [.59] — Norway — [.03] — Japan

[.005]

*Explanation*: The countries ranked from small to large gender gaps in authority. The numbers in square brackets represent the *p*-values for the differences between adjacent rank-ordered countries in their gender coefficients in the relevant equation. In situations in which the *p*-value does not fall below the $p < .05$ threshhold for adjacent countries in the rank order, the closest pair of countries whose coefficients differ at the $p < .05$ level is indicated above or below the list of countries. In all cases the significance levels are internally consistent across rank-orders.

[b] Percent reduction in gross gender gap = (Gap in Model 1 – Gap in Model 2)/(Gap in Model 1).

*Note:* The numbers in parentheses are standard errors. The gender gap is defined as 1 minus the antilog of the coefficient. Control variables are industry, state, occupation, part-time, education, and age.

tries range from virtually 0 percent in Japan and Australia to 12 percent in Canada. Nearly all of the modest reduction in the gender gap in authority in the United States and the United Kingdom comes from two job attributes (occupation and full-time employment); inclusion of the personal attribute variables in the equation has almost no affect on the gender gap.

Table 5 also shows that while the significance of some of the cross-national differences declines after controlling for compositional effects, the basic pattern is essentially the same as that for the gross gender differences. In particular, in the equations predicting the authority dichotomy, the only change between Model 1 and Model 2 is that in Model 2 the gender coefficients among the four English-speaking countries no longer differ significantly. For the net gender gap, therefore, we have a very clear grouping of our seven countries: the four English-speaking countries have the smallest net gender gaps in authority, the two Scandinavian countries have significantly larger net gender gaps, and Japan has by far the largest gap.

While it is always possible that we have omitted some crucial compositional variable from the analysis, nevertheless, these results strongly support the claim that gender differences in authority and cross-national patterns of these differences are not primarily the result of differences in the distributions of relevant attributes of men and women and their employment situations. This adds credibility to the claim that direct discrimination or self-selection in the promotion process are important.

### *Self-Selection Models*

The self-selection hypothesis states that because of family responsibilities women voluntarily make themselves less available for promotion into positions of authority in the workplace. We explore this hypothesis through the following interaction composition model:

$$\begin{aligned}\log\frac{\Pr(Authority=1)}{\Pr(Authority=0)} &= a + b_1 Female \\ &+ b_2 Married + b_3 Children \\ &+ b_4 Husband's\ Housework \\ &+ b_5 (Female \times Married) \\ &+ b_6 (Female \times Children) \\ &+ b_7 (Female \times Husband's\ Housework) \\ &+ \textstyle\sum_i b_i X_i, \end{aligned} \quad (5)$$

where the $X_i$ are the compositional variables in Model 2 that are available for all countries. If self-selection is a powerful force in shaping the gender gap in authority, then the interaction terms in these equations should be statistically significant.

Table 6 presents the coefficients for gender and the interaction terms using the authority dichotomy as the dependent variable.[12] None of the interactions are significant in the United States, Sweden, and Australia. In Norway and Canada, however, the interaction of female with husband's contribution to housework is significant. In Canada, the interaction of female with married approaches the $p < .05$ level of significance and becomes statistically significant when the interaction of female with children is dropped.[13] Among married women in these

would be 0. In the United States, the gender gap for the authority dichotomy is .46 in Model 1 (Table 4). The gender gap in the model with controls is .36 (Table 5). The difference between these coefficients is .10, which is 21.7 percent of .46, the gender gap from Model 1.

[12] These models could not be estimated for Japan and the United Kingdom because these countries lacked data on the division of labor in the household. The interaction terms in a simpler model without this variable were not significant for these two countries.

[13] The coefficient for female × married in Canada is –1.20 with a standard error of .48 when the female x children interaction term is dropped. In no other country is this interaction term significant. However, if the $X_i$ compositional terms are also excluded (but not the self-selection variables), the female × married interaction term is also significant in Norway. The coefficient for this interaction indicates that married women have a significantly lower probability of having authority than do married men; it does not say that married women have a lower probability of having authority than single women. There is no significant difference in the likelihood of authority between married women and single women. The significant married × female interaction comes from the fact that married *men* have a sig-

**Table 6. Testing the Self-Selection Hypothesis: Logistic Coefficients for Regression Predicting the Odds of Women Having Authority Relative to Men (Model 5 for Authority Dichotomy): Seven Countries**

| Country | Coefficients[a] | | | | Gender Gap for Authority Dichotomy at selected Values of Self-Selection Indicators[b] | | |
|---|---|---|---|---|---|---|---|
| | Female | Female × Married | Female × Children | Female × Husband's Housework | Unmarried (Weak Self-Selection Pressures) | Married in Relatively Egalitarian Households[c] without Children (Intermediate Self-Selection Pressures) | Married in Relatively Inegalitarian Households[d] with Children (Maximum Self-Selection Pressures) |
| United States | −.46 (.27) | −.32 (.43) | .21 (.35) | .009 (.010) | .37 | .33 | .38 |
| Australia | −.31 (.29) | −.21 (.49) | −.01 (.35) | −.004 (.010) | .27 | .49 | .44 |
| Canada | −.13 (.36) | −.94 (.52) | −.49 (.38) | .020* (.010) | .13 | .23 | .82 |
| Sweden | −1.61* (.54) | −.36 (.84) | .18 (.58) | .009 (.020) | .80 | .80 | .82 |
| Norway | −1.42* (.52) | −.84 (.71) | −.22 (.47) | .025* (.0125) | .76 | .71 | .89 |

* $p < .05$

[a] Logit coefficients are from the model with compositional controls and interactions with selection variables predicting authority dichotomy:

$$\log[\Pr(Authority = 1) / \Pr(Authority = 0)] = a + b_1 Female + b_2 Married + b_3 Children + b_4 Husband's\ Housework + b_5 (Female \times Married) + b_6 (Female \times Children) + b_7 (Female \times Husband's\ Housework) + \sum_i b_i X_i,$$

where the $X_i$ are industry, state, occupation, part-time, education, and age.

[b] Gender gap = 1 minus the antilog of the coefficient. This gap is evaluated at specific values of the interactive terms. For example, the gender gap in the United States for married people (married = 1) with children (children = 1) in inegalitarian households (husband's housework = 10) is:

$$1 - \exp[(-.46) + (-.32) + (.21) + (.009 \times 10)] = 1 - \exp(-.48) = 1 - .62 = .38.$$

[c] *In*egalitarian households are defined as those in which husbands do 10 percent of housework.

[d] Egalitarian households are defined as those in which husbands do 40 percent of housework.

*Note:* Numbers in parentheses are standard errors.

two countries, as the percentage of housework done by their husbands increases, the likelihood of their having workplace authority also increases. Only in Canada, however, does this interaction term generate a substantively large effect on the gender gap in authority: The gender gap in authority for married women without children in the home living in a relatively egalitarian household (a household in which husbands do 40 percent of the housework) is .23, whereas the gap for married women with children in the home living in an *in*egalitarian household (in which husbands do only 10 percent of the housework) is .82. This figure is comparable to the gender gap in Sweden and Norway. We have no explanation for why the patterns in Canada are different from those in the other countries. For Canada, therefore, these interactions are consistent with the self-selection hypothesis that women with high levels of domestic responsibilities often select themselves out of the running for positions of authority.[14] There is little or no support for the self-selection hypothesis for the other countries in the study.

### *The Gender Gap in the Amount of Authority*

So far we have only discussed the differential likelihood of men and women having any authority, but not differences in the *amount* of authority they have. We now examine gender differences in the amount of authority in two ways: (1) by estimating cumulative logits (equation 4) with the 10-point amount-of-authority scale as the dependent variable, and (2) by looking at the amount of authority conditional upon having some authority.

Tables 4 and 5 indicate that the patterns of gender gaps for the amount-of-authority scale are generally quite similar to those for the dichotomous authority variables. As in the analysis of having authority, the addition of the compositional variables has, at best, a modest effect on the gender gap. Also, the rank order of countries according to the gender gap on the amount-of-authority scale is almost identical to their rank order on the odds of having authority.

To evaluate the glass-ceiling hypothesis, we restrict the analysis to respondents in the authority hierarchy and then examine gender gaps in authority within this subsample. We use the respondent's formal position in the authority hierarchy as the criterion for restricting the sample: All respondents who say that they are at least a supervisor are treated as in the authority hierarchy. On this restricted sample, we run Model 1 and Model 2 for two dependent variables—sanctioning authority, and middle-manager or above in the formal hierarchy—and Model 2 for the amount-of-authority scale as well.[15] The results are presented in Table 7.

The most striking result in Table 7 is the sharp difference between the United States and other countries. In all countries except the United States, the gender gap in sanctioning authority, hierarchical position, and the amount of authority remain large and statistically significant when we restrict the sample to people in the authority hierarchy for both Model 1 and Model 2.[16] In contrast, in the United States, the gender gap ceases to be statistically significant for all of the dependent variables in both models. This is not because the standard errors of the coefficients for gender are large in the United States, but because the absolute value of the coefficients are relatively small. On the basis of these data, in the United States the net gender gap in sanctioning authority among

nificantly *higher* likelihood of having authority than do single men in these countries. When age is added as a compositional control to Model 5, the coefficient for the married × female interaction term is considerably reduced and ceases to be statistically significant in Norway.

[14] Although these results lend support to the self-selection hypothesis for Canada, and to a lesser extent for Norway, the negative association between housework inequality and women's workplace authority in Canada and Norway could partially reflect a causal impact of authority on housework rather than of housework on the likelihood of getting authority.

[15] Again, the decision-making variable seems to be a weaker indicator of real authority than our other measures. We therefore do not include decision-making in the analysis of the glass-ceiling hypothesis.

[16] In the analysis of the decision-making dependent variable (not shown), the gender gaps for the United Kingdom and Norway also cease to be statistically significant in the model with compositional controls.

**Table 7. Testing the Glass Ceiling Hypothesis: Logistic Coefficient for Gender for Regressions Predicting Odds of Women Having Work Authority Relative to Men: Seven Countries, Sample Restricted to People in the Formal Hierarchy**

| | Model 1 (Model with No Controls) | | | | Model 2 (Model with Controls) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Sanctioning Authority | | Middle Manager or Above in Formal Hierarchy | | Sanctioning Authority | | Middle Manager or Above in Formal Hierarchy | | Amount of Authority Scale | |
| Country/N | Logistic Coefficient | Gross Gender Gap | Logistic Coefficient | Gross Gender Gap | Logistic Coefficient | Net Gender Gap | Logistic Coefficient | Net Gender Gap | Logistic Coefficient | Net Gender Gap |
| United States | −.32 | .27 | −.27 | .23 | −.08 | .08 | −.36 | .30 | −.28 | .24 |
| N = 373[a] | (.23) | | (.23) | | (.27) | | (.28) | | (.23) | |
| Australia | −.91* | .60 | −.75* | .53 | −.65* | .48 | −.55* | .42 | −.64* | .47 |
| N = 414 | (.21) | | (.23) | | (.25) | | (.27) | | (.21) | |
| United Kingdom | −1.01* | .63 | −1.31* | .73 | −.80* | .55 | −1.08* | .66 | −1.03* | .64 |
| N = 332 | (.25) | | (.33) | | (.31) | | (.39) | | (.27) | |
| Canada | −.67* | .49 | −.66* | .48 | −.44 | .35 | −.71* | .51 | −.72* | .51 |
| N = 398 | (.22) | | (.24) | | (.26) | | (.29) | | (.23) | |
| Sweden | −.88* | .58 | −.82* | .56 | −.61 | .46 | −.91* | .60 | −.91* | .60 |
| N = 248 | (.31) | | (.37) | | (.36) | | (.43) | | (.32) | |
| Norway | −1.27* | .72 | −.90* | .59 | −.93* | .61 | −.98* | .63 | −1.06* | .65 |
| N = 376 | (.31) | | (.33) | | (.35) | | (.38) | | (.30) | |
| Japan | −2.29* | .90 | n.a.[b] | 1.00 | −2.37 | .91 | n.a. | 1.00 | −1.21* | .70 |
| N = 125 | (1.11) | | | | (1.26) | | | | (1.05) | |

[a] The N's reported here are from the sanctioning authority model. N's for the other models may differ slightly.

[b] There are no women in middle management positions or above in the Japanese sample. Thus, we assume women's odds of having authority relative to men are close to zero.

*Note*: Numbers in parentheses are standard errors.

people in the authority hierarchy is only about .08 (i.e., the odds of a woman in the hierarchy having sanctioning authority are about 8 percent less than those of a man, after controlling for the compositional variables in the equation); the gender gap for being at least a middle manager is only .30, and the gender gap for the amount of authority is .24. In other countries, the gender gaps in authority conditional on being in the authority hierarchy are generally .50 and above.[17]

What do these results mean for the glass-ceiling hypothesis? The glass-ceiling hypothesis states that the barriers women face, relative to men, for promotions up the authority hierarchy are generally greater than the barriers they face getting into the hierarchy itself. If this hypothesis is correct, then the gender gap in authority should be greater for people already in the authority hierarchy (Table 7) than for people in the labor force as a whole (Table 5). With only two exceptions, the coefficients are not consistent with this prediction. In every country, for sanctioning authority and for the amount-of-authority scale, the coefficients for gender for people in the hierarchy are the same as or smaller than the coefficients for gender for the sample as whole. The only cases in which the results are in line with the expectations of the glass-ceiling hypothesis are for formal position in the hierarchy in the United Kingdom and Australia.[18] With these possible exceptions, therefore, these results do not support the glass-ceiling hypothesis. Especially in the United States, once women are in the authority hierarchy, the barriers to promotions they face relative to men (at least into the middle range of the hierarchy) are not greater than the barriers they face getting into the hierarchy in the first place; if anything, these barriers appear to be weaker.

These results do not demonstrate that there is no gender discrimination in promotions for people already in authority hierarchies. However, the glass-ceiling hypothesis is not simply a claim about the existence of discrimination within hierarchies; it claims that such discrimination *increases* as one moves up the hierarchy, and the comparative data we have reviewed do not support this view. Of course, these data do not speak to the issue of whether there is a significant glass ceiling at the highest levels of authority hierarchies in the largest firms. In a random sample of this sort we do not have sufficient data on CEO's or top executives of large corporations to examine whether intensified barriers exist at the top of hierarchies.[19] Nevertheless, while a gender gap in the amount of authority among people in the authority hierarchy probably exists in the United States, our data indicate that it is weaker than it is in other countries in this study and cannot properly be described as constituting a glass ceiling, at least in the middle ranges of most organizational hierarchies.

[17] Because of the small sample size in these analyses, we cannot to test the differences between the coefficients for the United States and each of the other countries taken separately. If we compare the United States to all of the other countries taken together except for Japan (Japan was dropped because it has such large standard errors), then we find that in Model 1 for sanctioning authority the coefficient for the United States is .43 smaller than that for the other countries combined ($p < .08$), and the coefficient in the United States for being a middle manager or above in the formal hierarchy is .54 smaller than that in other countries ($p < .02$). In the parallel results for Model 2, the magnitude of the differences in coefficients is virtually the same, but the standard errors increase so the significance level drops to $p < .13$.

[18] For those people already in the hierarchy, the odds of a woman being at least a middle manager are 66 percent less than those for men in the United Kingdom and 42 percent less than those for men in Australia, whereas the odds of a woman simply being in the hierarchy are only 44 percent less than those for men in the United Kingdom and 35 percent less than those for men in Australia.

[19] The formal hierarchy item does distinguish between top and upper managers, on the one hand, and middle managers, on the other, although the number of cases is so small that in most countries we cannot make reliable estimates of the gender gap in authority at this level of the hierarchy. Nevertheless, the same basic pattern occurs using top manager or upper manager as the dependent variable: In the United States, the gender gap for being an upper manager or top manager, conditional upon being in the authority hierarchy, is about .25, whereas in other countries the figures are all between .47 and .67.

### *Explaining Cross-National Variation*

We have rejected the possibility that the differences across countries in the gender gap in workplace authority can be attributed to differences in various compositional factors. We now explore somewhat less formally several general macrosocial and cultural factors that may help explain the variation across countries in the gender gap. The results are presented in Table 8.

***Gender ideology.*** Respondents were asked whether they strongly agreed, somewhat agreed, somewhat disagreed, or strongly disagreed with each of the following statements: (1) Ideally, there should be as many women as men in important positions in government and business; (2) If both husband and wife work, they should share equally in the housework and childcare; (3) It is better for the family if the husband is the principal breadwinner outside the home and the wife has primary responsibility for the home and children. A gender-ideology scale was constructed by adding the responses to each item and averaging the responses over the number of valid items. The last item was rescaled so that the egalitarian response was in the same direction as the responses on the other two questions. The scale ranges from 1, indicating a consistently strong egalitarian attitude toward gender roles, to 4, indicating a consistently strong conservative attitude.

In Table 8, there is no relationship between the rank order of countries in terms of gender ideology (column 2) and the rank order for the gender gap in workplace authority (column 1). Sweden and Norway are the most ideologically egalitarian but have among the largest gender gaps in authority; the United States is exceeded only by Japan in the level of ideological inegalitarianism, yet it has the smallest gender gap in authority.

***Sexual and reproductive rights.*** Charles (1992) has constructed an index of legally-enforced gender rights based on a principal components analysis, single-factor solution of three dummy variables: (1) abortions are available on request; (2) marital rape is a crime; and (3) women are guaranteed at least 12 weeks of paid pregnancy leave from work. Positive scores indicate more rights. Scale values for our countries range from 1.83 to −1.02. However, there is little relationship between the country rank order on these scale scores (column 3) and the rank order for the net gender gap for the authority dichotomy.

***Gender gap in earnings.*** The gender gap in earnings may indicate broader institutional arrangements for gender equality within work, and thus one might expect it to be linked to the gender gap in authority. Contrary to this expectation, however, the data in Table 8 indicate no association between the gender gap in hourly earnings (column 4) and the gender gap in authority (column 1).[20]

***Occupational sex segregation.*** The expectation that the rank order of countries on sex-segregation of occupations should roughly mirror the gender gap in authority is not strongly supported by the available data. Based on measures from two comparative studies of occupational sex segregation (Blau and Ferber 1990; Charles 1992), there is little relationship between occupational sex segregation (columns 5 and 6) and the gender gap in authority. Japan has among the lowest levels of occupational sex segregation while, depending on the measure of sex segregation, the United Kingdom and Australia have among the highest levels of occupational sex segregation. The measures of occupational sex segregation used in these two studies are based on quite broad classifications of occupations—seven categories in the Blau and Ferber study and six in the Charles study. A more fine-grained analysis of occupational sex segregation could alter these results. However, Brinton and Ngo (1991) found that even with an 89-category classification, the United States has a higher index of dissimilarity than Japan (55.6 compared to 49.8).[21] Thus, it seems unlikely that a more

[20] The data for Sweden, Norway, Australia, the United Kingdom, Canada, and the United States are from National Committee on Pay Equity (1988:10–14). Data for Japan come from the International Labor Organization (1992:798–804). There are some differences in the dates and definitions for each country: Australia (1985), full-time, average weekly earnings; Canada (1986), not specified; Japan (1984), average monthly earnings; Norway (1980), average hourly earnings in manufacturing; Sweden (1985), average monthly earnings, industry; United Kingdom (1985), average hourly earnings; United States (1987), median annual earnings.

[21] Brinton and Ngo (1991) demonstrated that the lower occupational sex-segregation in Japan

**Table 8. Gender Gap in Authority and Selected Macrosocial Characteristics: Seven Countries**

| (1) Net Gender Gap on Authority Dichotomy (Model 2) | | (2) Gender Ideology Score[b] | | (3) Sexual and Reproductive Rights[c] | | (4) Gender Gap in Earnings[d] | | Occupational Sex Segregation (5) Index of Dissimilarity | | Occupational Sex Segregation (6) Ratio Index | | (7) Percentage of Labor Force in OPfficial Managerial Positions[g] | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Rank Order of Countries | Net Gender Gap[a] | Rank Order of Countries | Mean Score | Rank Order of Countries | Mean Score | Rank Order of Countries | Women's Wage Rate as % of Men's | Rank Order of Countries | Mean Score[e] | Rank Order of Countries | Mean Score[f] | Rank Order of Countries | Percentage of Labor Force |
| U.S.A. | .36 | Sweden | 1.77 | Norway | 1.83 | Sweden | 91.0 | Japan | 22.2 | U.S.A. | .65 | Australia | 15.8% |
| Australia | .45 | Norway | 1.82 | Sweden | 1.17 | Norway | 81.9 | Australia | 31.9 | Japan | .72 | U.S.A. | 13.7% |
| U.K. | .50 | Canada | 2.01 | U.S.A. | 1.17 | Australia | 81.7 | U.S.A. | 36.6 | Canada | .75 | Canada | 12.2% |
| Canada | .58 | Australia | 2.05 | Canada | –.48 | U.K. | 74.0 | Canada | 41.0 | U.K. | .92 | U.K. | 12.2% |
| Sweden | .79 | U.S.A. | 2.17 | U.K. | –.48 | Canada | 66.0 | Sweden | 41.8 | Australia | .95 | Sweden | 10.9% |
| Norway | .82 | Japan | 2.43 | Australia | –1.02 | U.S.A. | 65.0 | U.K. | 44.4 | Sweden | .96 | Norway | 10.4% |
| Japan | .98 | | | Japan | –1.02 | Japan | 51.8 | Norway | 47.2 | Norway | .99 | Japan | 5.9% |

[a] The Gender Gap in workplace authority is defined as 1 – exp($b$), where $b$ is the coefficient for gender in the logistic regression predicting the authority dichotomy in Model 2.

[b] This is a simple index based on three Likert items concerning sex role attitudes. The lower the score the more egalitarian. The scores range from 1 to 4. Data were not available for the United Kingdom.

[c] This is a simple factor analytic scale of three legal rights for women: rights to abortion, rights to at least 12 weeks paid pregnancy leave, marital rape is a crime (Charles 1992: 491–2).

[d] See footnote 20 for sources and definitions of measures.

[e] See Blau and Ferber (1990).

[f] "Ratio index of sex segregation" scores calculated by Charles (1992:489).

[g] People in jobs that are described as "managerial positions" (not merely supervisory positions) in the formal hierarchy variable.

refined analysis would support the view that variations across countries in the gender gap in authority is simply a reflection of variation in broader processes in the association between gender and occupation.

***The percent of the labor force with authority.*** Column 7 presents the rank-ordering of the countries in our sample by the percentage of the labor force in managerial positions (as measured by the formal hierarchy variable). The results indicate that the relative size of the managerial category in a country is closely related to the rank ordering of the gender gap in authority: The four English-speaking countries have the largest percentage of their labor forces in managerial positions, followed by the two Scandinavian countries, and then, with a much smaller figure, Japan.[22] It therefore appears that the aggregate availability of managerial positions in a society may influence the size of the gender gap in the allocation of authority.

***The women's movement and political culture.*** We know of no comparative research that systematically assesses women's movements in different countries in terms of their organizational strength, political strength, or their ideological stance. Our analysis of these issues, therefore, must remain relatively impressionistic.

In terms of the political strength of the women's movement, the women's movement in Japan is clearly far weaker than that in any other country. It is less obvious how to judge the relative strength of women's movements in the other six countries, although it seems clear that the politically organized women's movement in the United States would be among the strongest. According to Katzenstein (1987): "Mainstream feminism in the United States, liberal in its political tenets, is the only movement of those described in this volume with a mass-based national organization run by a paid, professional staff. In no country in Western Europe is there a national organization analogous to the National Organization for Women (NOW)" (p. 12).[23] She further noted that although feminist consciousness in Sweden is fairly highly diffused in the population (in contrast to Britain, where she felt it is less developed) and has had a major impact on the social policies of the Swedish Social Democratic welfare state: "In Sweden policy success is won at the price of organizational weakness [of the women's movement]" (Katzenstein 1987: 16). This image of a relatively weakly mobilized women's movement in Sweden is echoed by Ruggie (1988), who wrote: "Swedish women themselves are not greatly mobilized for change at present, either in autonomous groups or in workplace organizations" (p. 187). While this evidence is impressionistic, it seems safe to say that the politically organized women's movement is probably weakest in Japan and strongest in the United States, with the other countries falling somewhere in between.

The broad ideological orientation of different women's movements is somewhat easier to judge, at least if we are willing to assume that these women's movements probably reflect to a significant extent the broader political culture of their societies. Esping-Anderson (1990) classified capitalist democracies along several dimensions characterizing the ideological principles within their welfare states. The "decommodification" score measures the extent to which the state neutralizes the effects of the market through welfare policies (Esping-Anderson 1990:52).

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compared to the United States occurs because there is lower sex segregation among low-status occupations in Japan as compared to the United States. Among high status occupations, in contrast, the level of sex segregation is higher in Japan than in the United States. They proposed an alternative measure that weights the index of dissimilarity by the prestige of occupations. This weighting procedure considerably increases the index of dissimilarity for Japan and modestly reduces it for the United States. The result is that the prestige-adjusted occupational sex segregation index in Japan is higher than it is in the United States.

[22] When the category "managers" is defined as people who occupy *either* manager *or* supervisor positions in the formal hierarchy variable, or when it is defined on the basis of the other two dimensions of authority we have been examining (decision-making and sanctioning authority), then the rank-ordering of the proportion of the labor force who are managers does not correspond so neatly to the rank ordering of the gender gap in authority.

[23] The volume discusses the women's movements in the United States, Britain, Sweden, the Netherlands, France, Italy, and Germany.

**Table 9. Scores on Three Indicators of Political Culture: Seven Countries**

| Degree of "Decommodification" in the Welfare State | | Degree of Liberalism in Regime Attributes | | Degree of Socialism in Regime Attributes | |
|---|---|---|---|---|---|
| Rank Order | Score | Rank Order | Score | Rank Order | Score |
| Australia | 13.0 | United States | 12 | United States | 0 |
| United States | 13.8 | Canada | 12 | Japan | 2 |
| Canada | 22.0 | Australia | 10 | Australia | 4 |
| United Kingdom | 23.4 | Japan | 10 | United Kingdom | 4 |
| Japan | 27.1 | United Kingdom | 6 | Canada | 4 |
| Norway | 38.3 | Norway | 0 | Norway | 8 |
| Sweden | 39.1 | Sweden | 0 | Sweden | 8 |

*Source*: From Esping-Anderson (1990). "Decommodification" is a measure of the extent to which the welfare state neutralizes the effects of the market through its welfare policies. "Liberalism" indexes the extent to which the welfare state interventions follow the principles of classical liberalism. "Socialism" indexes the extent to which the regime follows socialist principles.

The "liberalism" score indexes the extent to which welfare-state interventions follow the principles of classical liberalism, while the "socialism" score indexes the extent to which the regime follows socialist principles (Esping-Anderson 1990:74). These scores are presented in Table 9. With the exception of Japan, the rank orderings of these political variables closely parallel the rank ordering of the gender gap. Specifically, the four English-speaking countries score low on what Esping-Anderson terms "decommodification" (i.e., welfare state policies which reduce the dependency of workers on the market) and high on liberalism, whereas Norway and Sweden score high on decommodification and extremely low on liberalism.

How does this relate to the problem of the gender gap in authority? Liberalism argues that markets are a legitimate and efficient means of distributing welfare as long as they are "fair." Eliminating ascriptive barriers to individual achievement in labor markets and employment relations is therefore a central objective of liberal politics. A women's movement animated by a liberal political culture, therefore, would be particularly concerned with equal rights and the elimination of such barriers. In keeping with this expectation, Goldberg and Uremen (1990:28–30) emphasized the relatively strong antidiscrimination laws that have been passed in the United States and their relative effectiveness, at least as compared to many other countries.

Social democracy, in contrast, questions the legitimacy of market-determined inequalities regardless of the equality of opportunity, and seeks to render human welfare at least partially independent of market mechanisms. A women's movement embedded in a social democratic political culture would be expected to be less concerned with labor market mechanisms and more concerned with state interventions that directly provide services and resources that enhance women's welfare like parental leave, maternal health care, childcare services, and child allowances (Moen 1989; Goldberg and Uremen 1990: 141–44). Such priorities would not directly affect discrimination in the workplace. Commenting on the contrast between American liberal feminism and European social democratic feminism, Fraser (1993) argued that Americans adopt a "universal breadwinner" model of gender equality that emphasizes employment rights, whereas European social democrats adopt a "caregiver parity" model that stresses the provision of services and resources to equalize the conditions of life for women engaged primarily in domestic responsibilities. Furthermore, there are unintended by-products of some of the social democratic provisions for caregiver parity that might even increase the gender gap in authority. For example, women are much

more likely than are men to take advantage of the generous provision of parental leave on the birth of children. The real costs to an employer of paid parental leaves are likely to be much greater when these leaves are taken by managerial employees than by nonmanagerial employees, since an extended absence of a manager is likely to be organizationally disruptive. This means that since women take parental leaves much more frequently than do men, employers are likely to engage in statistical discrimination against women in managerial promotions. The relatively large gender gap in workplace authority in the social democratic Scandinavian countries, therefore, may be in part a by-product of the relatively low priority placed on liberal goals of individual competition and achievement relative to more communal benefits, and in part the unintended effects of these communal benefits on employer disincentives to promote women into managerial positions.

Taking these arguments together, we hypothesize that the variation across countries in the size of the gender gap in workplace authority is the result of the interaction between the relative abundance of authority positions and the capacity and interest of a politically organized women's movement to challenge the barriers to women being promoted into those positions. If there are relatively few managerial positions and the women's movement is particularly weak, as in Japan, the gender gap in authority will be large. If there are moderate numbers of managerial positions, but the women's movement is oriented toward collective goods and decommodified social provisions, the gender gap will also be relatively large. If there are relatively many managerial positions in the job structure and the women's movement is relatively strong and oriented toward liberal individualist goals, the gender gap will be most effectively challenged.

## CONCLUSION

Several general conclusions emerge from this research. First, although a gender gap in authority exists in all of the countries we studied, there is considerable cross-national variation in the magnitude of this gap: It is smaller in the English-speaking countries, especially the United States and Australia, relatively large in the Scandinavian countries, and huge in Japan. These results appear robust across a variety of measures.

Second, the gender gap in authority within countries and the patterns of cross-national variation do not appear to be the result of compositional differences among men and women in the labor force: After controlling for a range of attributes of firms, jobs, and individuals, the gender gap for every country and the basic pattern of cross-national differences remain. This suggests that a significant proportion of the differences in men's and women's attainment of authority is probably attributable to direct discrimination.

Although some of the gender gap in authority in some countries (especially Canada) may be a result of self-selection by women, our analysis does not support the view that this is a major determinant of gender inequality in authority, and it appears to be of relatively small importance in most of the countries we studied.

Third, the somewhat weak form of the glass-ceiling hypothesis we investigated is not supported in most of the countries in the study. Although a gender gap in authority continues to exist when we restrict the analysis to people already in the authority hierarchy, this gap does not appear to be greater than the gap in acquiring authority in the first place. The common view that the women's movement has been more successful in opening up positions for women at the bottom of the organizational hierarchy than in removing barriers to their movement up the corporate ladder is not supported by these data. With respect to the differences among countries on this issue, in the United States promotional possibilities for women already in the authority hierarchy appear to be significantly greater than those in any of the other countries in the study. While in many other respects the United States is far from being a leader in egalitarian policies, on gender issues in workplace hierarchies, the United States has made considerable progress relative to most other countries.

Finally, and more tentatively, our data suggest that variation in the gender gap across countries may be the result of the interaction between variations in the relative abundance of authority positions and the effectiveness

of different women's movements in challenging the barriers women face in moving into those positions. Both political and economic factors thus seem to be important in explaining the variability in gender inequality in workplace authority, whereas cultural differences more specifically linked to gender ideology seem less significant.

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## REFERENCES

Acker, Joan. 1990. "Hierarchies, Jobs, Bodies: A Theory of Gendered Organization." *Gender and Society* 4:139–58.

Agresti, Alain. 1990. *Categorical Data Analysis.* New York: Wiley.

Baxter, Janeen and Emily Kane. Forthcoming. "Dependence and Independence: The Relationship between Gender Inequality and Gender Attitudes in the United States, Canada, Australia, Norway and Sweden." *Gender and Society.*

Beck, E. M., Patrick M. Horan, and Charles M. Tolbert II. 1978. "Stratification in a Dual Economy: A Sectoral Model of Earnings Determination." *American Sociological Review.* 43:704–20.

Bergman, Barbara. 1986. *The Economic Emergence of Women.* New York: Basic Books.

Bielby, William T. and James N. Baron. 1986. "Men and Women at Work: Sex Segregation and Statistical Discrimination." *American Journal of Sociology* 91:759–99.

Blau, Francine D. and Marianne A. Ferber. 1990. "Women's Work, Women's Lives: A Comparative Perspective" (Working Paper No. 3447). Cambridge, MA: National Bureau of Economic Research.

Brinton, Mary C. 1988. "The Social-Institutional Bases of Gender Stratification: Japan as an Illustrative Case." *American Journal of Sociology* 94:300–34.

Brinton, Mary and Hang-Yue Ngo. 1991. "Occupational Sex-Segregation in Comparative Perspective," Department of Sociology, University of Chicago, Chicago, IL. Unpublished manuscript.

Charles, Maria. 1992. "Cross-National Variations in Occupational Sex Segregation." *American Sociological Review* 57:483–502.

Diprete, Thomas A. and T. Whitman Soule. 1988. "Gender and Promotion in Segmented Ladder Systems." *American Sociological Review* 53: 26–40.

Esping-Anderson, Gøsta. 1990. *The Three Worlds of Welfare Capitalism.* Princeton, NJ: Princeton University Press.

Featherman, David and Robert M. Hauser. 1978. *Opportunity and Change.* New York: Academic Press.

Fraser, Nancy. 1993. "After the Family Wage: What Do Women Want in Social Welfare?" Department of Philosophy, Northwestern University, Evanston, IL. Unpublished manuscript.

Garland, Susan. 1991. "Throwing Stones at the Glass Ceiling." *Business Week,* August 19, p. 27.

Goldberg, Gertrude Schaffner and Eleanor Ureman, eds. 1990. *The Feminization of Poverty: Only in America?* New York: Praeger.

Grandjean, Burke D. 1981. "History and Career in a Bureaucratic Labor Market." *American Journal of Sociology* 86:1057–92.

Halaby, Charles. 1979. "Job Specific Sex Differences in Organizational Reward Attainment: Wage Discrimination vs. Rank Segregation." *Social Forces* 58:108–27.

Hill, Martha. 1980. "Authority at Work: How Men and Women Differ." Pp. 107–46 in *Five Thousand American Families*, vol. 8, edited by G. J. Duncan and J. Morgan. Ann Arbor, MI: University of Michigan Press.

International Labor Organization. 1992. *The Yearbook of Labor Statistics.* 51st ed. Geneva, Switzerland: International Labor Organization.

Jacobs, Jerry A. 1989. *Revolving Doors: Sex Segregation and Women's Careers.* Stanford, CA: Stanford University Press.

———. 1992. "Women's Entry into Management: Trends in Earnings, Authority and Val-

ues among Salaried Managers." *Administrative Science Quarterly* 37:282–301.

Jaffee, David. 1989. "Gender Inequality in Workplace Autonomy and Authority." *Social Science Quarterly* 70:375–90.

Kanter, Rosabeth Moss. 1977. *Men and Women of the Corporation.* New York: Basic Books.

Katzenstein, Mary Fainsod. 1987. "Comparing the Feminist Movements of the United States and Western Europe: An Overview." In *The Women's Movements of the United States and Western Europe*, edited by M. F. Katzenstein and C. M. Mueller. Philadelphia, PA: Temple University Press.

McGuire, Gail M. and Barbara Reskin. 1993. "Authority Hierarchies at Work: The Impacts of Race and Sex," *Gender and Society* 7:487–506.

Moen, Phyllis. 1989. *Working Parents: Transformations in Gender Roles and Public Policies in Sweden.* London, England: Adamantine Press.

Morrison, Ann M. and Mary Ann Von Glinow. 1990. "Women and Minorities in Management." *American Psychologist* 45:200–208.

National Committee on Pay Equity. 1988. *Closing the Wage Gap: An International Perspective.* Washington, DC: National Committee on Pay Equity.

Reskin, Barbara. 1988. "Bringing Men Back In: Sex Differentiation and the Devaluation of Women's Work." *Gender and Society* 2:58–81.

Reskin, Barbara and Heidi Hartmann. 1986. *Women's Work, Men's Work: Sex Segregation on the Job.* Washington, DC:National Academy Press.

Reskin, Barbara and Patricia Roos. 1992. "Jobs, Authority and Earnings among Managers: The Continuing Significance of Sex." *Work and Occupations* 19:342–65.

Reskin, Barbara and Irene Padavic. 1994. *Women and Men at Work.* Thousand Oaks, CA: Pine Forge Press.

Robinson, R. and J. Kelley. 1979. "Class as Conceived by Marx and Dahrendorf." American Sociological Review 41:209–34.

Rosenbaum, James. 1984. *Career Mobility in a Corporate Hierarchy.* New York: Academic Press.

Rosenfeld, Rachel A. and Anne L. Kalleberg. 1990. "A Cross-National Comparison of the Gender Gap in Income." *American Journal of Sociology* 96:69–106.

Roos, Patricia. 1981. "Sex Stratification in the Workplace: Male-Female Differences in Economic Returns to Occupation." *Social Science Research* 10:195–224.

Ruggie, Mary. 1988. "Gender, Work and Social Progress: Some Consequences of Interest Aggregation in Sweden." Pp.173–88 in *Feminization of the Labour Force: Paradoxes and Promises*, edited by J. Jenson, E. Hagen, and C. Reddy. Oxford, England: Polity Press.

Spaeth, Joseph L. 1985. "Job Power and Earnings." *American Sociological Review* 50:603–17.

Treiman, Donald and Patricia Roos. 1983. "Sex and Earnings in Industrial Society." *American Journal of Sociology* 89:612–50.

Wolf, Wendy C. and Neil D. Fligstein. 1979a. "Sex and Authority in the Workplace: The Causes of Sexual Inequality." *American Sociological Review* 44:235–52.

———. 1979b. "Sexual Stratification: Differences in Power in the Work Setting." *Social Forces* 58:94–107.

Wright, Erik Olin. 1979. *Class Structure and Income Determination.* New York, NY: Academic Press.

———. 1989. "The Comparative Project on Class Structure and Class Consciousness: An Overview." *Acta Sociologica* 32:3–22.

Wright, Erik Olin, Karen Shire, Shu-Ling Hwang, Maureen Dolan, and Janeen Baxter. 1992. "The Non-Effects of Class on the Gender Division of Labor in the Home: A Comparative Study of Sweden and the United States." *Gender and Society* 6:252–82.