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WE (HAVE TO) TRY HARDER

Gender and Required Work Effort in Britain and the United States

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Across three decades in both Britain and the United States, surveys indicate that women must work harder than men do. Using data from the 1997 Skills Survey of the Employed British Workforce (U.K.) and the 1997 National Study of the Changing Workforce (U.S.), the authors investigate two possible explanations for this gap in reports of required effort: gender differences in job characteristics and family responsibilities. In multivariate ordered logistic regressions, extensive measures of job characteristics do not explain the difference between women and men. Family obligations, as well, account for little or none of the gap. The authors argue that the association between gender and reported required work effort is best interpreted as reflecting stricter performance standards imposed on women, even when women and men hold the same jobs. The authors discuss alternative interpretations and implications for research.

Keywords: *employer bias; gendered performance expectations; work effort*

Research interest in required work effort has grown as global competition, technological change, and union decline have led to work intensification around the world (Green 2006). Yet, researchers have overlooked an intriguing fact: In survey after survey, women say their jobs demand more effort than men do. To illustrate, Table 1 presents the percentages of men and women who strongly agreed, agreed, disagreed, or strongly disagreed with the statement “My job requires that I work very hard,” from five

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surveys that together span three decades in Britain and the United States.¹ The table illustrates the trend toward increasing required effort over time, especially in the United States. At the same time, it demonstrates the persistent gap between women and men. The association between gender and required effort is statistically significant in all surveys, with women reporting stronger agreement than men.²

The gender gap in required work effort may have important consequences for women as they experience their daily working lives and chart their career trajectories. If women must work harder than men do, the quality of women's work experience is likely to be lower than men's. Job demands for effort are associated with anxiety, depression, and burnout (De Jonge and Schaufeli 1998), physical stress and illness (Ganster, Fox, and Dwyer 2001), and reduced job satisfaction (Dwyer and Ganster 1991). Because women are usually the primary family caregivers, these physical and emotional effects could, in turn, have negative repercussions for families. Work-related stress, overwork, and exhaustion lead to tension and conflict in family relationships (Crouter et al. 2001; Roberts and Levenson 2001). A gender difference in required effort could also have consequences for women's careers. If women must exert greater effort at work—yet continually lag behind men in rewards for their effort—they may experience a sense of futility or come to doubt their own abilities (Valian 1998). Such feelings may make women less likely to persevere on their initial career paths.

Our focus is on *required* work effort—the effort that an employee is expected to exert in order to perform her or his job at a level that is satisfactory to the employer. It is important to distinguish required effort from an employee's actual *exerted* effort (for a discussion, see Bielby and Bielby 2001). Although exerted effort will presumably often match required effort, it need not always do so. Employees may exert *less* than the required amount of effort if they can do so without being detected. From the point of view of employers, this is the classic “shirking” problem, which they try to solve through technological, bureaucratic, or normative modes of control. Employees may also exert *more* than the required amount of effort, going above and beyond what is necessary. Extra effort of this nature is sometimes referred to as “organizational citizenship behavior” (Kidwell and Bennett 1993).

We examine two possible explanations for the gap between women and men in reports of required effort: job characteristics reflecting objective demands for effort, and fatigue due to family and household responsibilities. Using the 1997 Skills Survey of the Employed British Workforce in

TABLE 1: Men's and Women's Responses to the Statement, "My Job Requires that I Work Very Hard," across Five Surveys

	1977 U.S.		1992 U.S.		1997 U.S.		1997 U.K.		2001 U.K.	
	Men	Women*	Men	Women***	Men	Women**	Men	Women**	Men	Women*
Percentages who:										
Strongly agree	21.59	22.22	25.32	31.41	57.37	62.78	38.77	41.80	37.26	40.88
Agree	46.52	53.66	53.20	50.06	29.64	24.59	48.46	50.09	52.17	50.40
Disagree	27.97	21.28	20.20	17.01	8.61	8.03	12.15	7.69	10.10	8.49
Strongly disagree	3.91	2.84	1.28	1.53	4.39	4.61	0.62	0.43	0.47	0.23
N	690	423	1,564	1,770	1,778	1,757	1300	1,158	2,327	2,143

NOTE: The 1977 U.S. figures are based on the 1977 Quality of Employment Survey. The 1997 and 2001 U.K. figures are based on the 1997 and 2001 Skills Surveys of the Employed British Workforce, respectively. The 1992 and 1997 U.S. figures are based on the 1992 and 1997 National Studies of the Changing Workforce, respectively. Within-sample gender difference in response significant at the following levels: * $p < .05$, ** $p < .01$, *** $p < .001$.

Britain and the 1997 National Study of the Changing Workforce in the United States, we find that neither set of factors explains the association between gender and required effort. We suggest instead that this association arises because employers impose stricter performance standards on women than on men.

JOB DEMANDS FOR EFFORT: WHOSE JOBS ARE "HARDER"?

Given that women and men are largely segregated in different jobs (Tomaskovic-Devey et al. 2006), a gender difference in required work effort could occur if the tasks and working conditions of women's jobs are more demanding. In that case, anyone holding those jobs would report greater required effort, regardless of gender. Two types of job demands increase effort requirements: higher performance standards and greater inherent difficulty (Hambrick, Finkelstein, and Mooney 2005).

Jobs require more effort when employers establish higher performance expectations for the quantity or quality of workers' output. Employers can use a number of strategies to elicit high levels of worker performance. For example, employers have long used technology to try to boost worker productivity. In recent decades, electronic information technologies have been used to raise performance expectations by directing workflow more efficiently and monitoring the speed and quality of workers' performance (Green 2004). Employers also use the organization of work to

raise performance standards. Thus, some aspects of “high-performance” or “flexible” work organization spur employees to work harder (Green 2006). In particular, self-directed teams and job rotation subject workers to monitoring by their peers (Barker 1993), while multiskilling and “just-in-time” production methods reduce periods of worker inactivity (Graham 1995). Employers may also seek to socialize employees into a culture that emphasizes loyalty and commitment (Graham 1995; Kunda 1992), or they may use job insecurity, nonstandard work arrangements, and lack of union representation to increase workers’ vulnerability to performance pressures (Green 2004).

Jobs also require more effort when the work itself is inherently more difficult. Job difficulty is greater when work involves strenuous physical activities (Demerouti et al. 2001), complex cognitive tasks (Dwyer and Ganster 1991), or interpersonal interactions that call for emotional labor (Fox, Dwyer, and Ganster 1993). Work is also more difficult when employees do not have access to helpful resources, such as training programs or supportive coworkers (Demerouti et al. 2001). The effects of job autonomy and authority on job difficulty are ambiguous. On the one hand, they may reduce job difficulty by enabling workers to determine the best strategies for accomplishing their work goals (Perrewe and Ganster 1991). On the other, they can increase job demands by requiring workers to make decisions and bear responsibility (Xie and Johns 1995).

Existing research is equivocal as to whether women’s or men’s jobs involve greater job demands of either type. With respect to job characteristics linked to higher productivity expectations, women are more likely than men to use a computer in some fashion at work (U.S. Census Bureau 1999) and have historically had less access to unionized jobs (Padavic and Reskin 2002), but are not more likely to work in “high-performance” or “participative” settings (Reynolds 2006a, 2006b). With respect to characteristics linked to job difficulty, men’s jobs involve more physically strenuous tasks, on average (Schieman 2006), although jobs in child care and health care, which are predominantly held by women, can also be physically onerous (Jacobs and Steinberg 1990). There is some evidence that men’s jobs involve greater cognitive complexity (Loscocco and Spitze 1990; Roxburgh 1996), but the difference may be slight (Kilbourne et al. 1994). There is little question that women’s jobs are more likely to call for providing help or nurturance to others (Jacobs and Steinberg 1990; Kilbourne et al. 1994). Women also have less access to some resources that facilitate job performance, such as autonomy (Petrie and Roman 2004), authority (Smith 2002), and possibly training (Keaveny and Inderrieden 1999), but

women are more likely than men to enjoy the benefits of supportive coworker relationships (Schieman 2006). Overall, women's jobs do not seem to be consistently harder or easier than the ones men hold, suggesting that another mechanism may be driving the observed gender gap in required work effort.

FAMILY AND HOUSEHOLD RESPONSIBILITIES

If job demands do not fully explain the association between gender and required effort, what else might contribute to it? It is worth noting, at this point, that workers' reports of required effort are subjective measures. Researchers typically treat workers' subjective reports as valid measures of objective effort, reasoning that workers' subjective assessments are calibrated against a socially shared notion of "normal" work effort (see Bielby and Bielby 2001; Green 2006). Subjective measures of physical and mental effort correlate well with laboratory-based objective measures; subjective measures also reflect the widely acknowledged trend toward work intensification over the last few decades, as Table 1 illustrates (Green 2006). Nonetheless, it is possible that women overestimate the amount of effort required by their jobs, and/or that men underestimate it. In other words, faced with the same objective effort demands, women may say that those demands require more effort than men say they do.

One obvious reason why women might say their jobs require greater effort is that they are more tired than men due to family and household responsibilities. Workers whose energy levels are low are likely to feel that greater effort is needed to attain a given level of performance. Experimental and field research supports this idea, finding that individuals report greater required effort at the end of long work shifts than at the beginning (Meijman et al. 1986), and when they must work continually on the same task rather than on a variety of tasks (Kuijer, Visser, and Kemper 1999).

Workers are more likely to devote energy to family and household tasks when they are married or cohabiting and when they have children. The draining effects of these ties on energy are likely to be greater for women than for men. Women devote more time than men do to housework and child care, on average (Bianchi 2000; Bianchi et al. 2000). These family and household obligations may deplete women's energy. Thus, women may be more fatigued at work, leading them to report higher levels of required work effort.

DATA AND MEASURES

To investigate the question of gender differences in assessments of required effort, we use two surveys conducted in 1997 in Britain and the United States. The 1997 Skills Survey of the Employed British Workforce is a cross-sectional, nationally representative in-person interview survey of 2,467 employed adults between the ages of 20 and 60 (see Felstead, Gallie, and Green 2002). The 1997 National Study of the Changing Workforce (NSCW) is a cross-sectional, nationally representative telephone-interview survey of 3,551 working adults aged 18 or older, conducted in the United States by the Families and Work Institute (see Families and Work Institute 2001). In both surveys, the dependent variable is the extent of the respondent's agreement with the statement "My job requires me to work very hard," and the principal independent variable is a dichotomous variable indicating whether or not the respondent is a woman. Descriptions of all variables are presented in Appendices A and B.

Additional Measures—1997 Skills Survey (U.K.)

Job characteristics. A number of variables measure job characteristics that may reflect higher employer performance expectations or worker vulnerability to productivity pressures. These include the importance and complexity of computer use in the respondent's job; the extent of participation in quality circles and teams; the respondent's perceived job security; whether the job is temporary or part-time; and whether the respondent is a union member.

We also include measures of characteristics that seem likely to increase or decrease the physical, cognitive, or interpersonal difficulty of the job. Physical difficulty is tapped with measures of the need for physical strength and stamina, the risk of physical harm, the extent of physical discomfort, and the use of tools and machinery. Cognitive difficulty is represented by measures of the importance in the job of problem solving, vigilance for details and errors, self-management, planning the tasks of others, and use of mathematics, as well as measures of the levels of specialist knowledge, education, and learning time required to perform the job. To capture interpersonal difficulty, we use measures of the extent to which the job involves cooperating with, caring for, or influencing others. To tap access to resources, we include measures of job autonomy, job authority, and the availability of on-the-job training, as well as two measures of authority: a set of indicators of organizational rank (manager, supervisor, or frontline worker), and scope of job responsibilities. To

capture otherwise unobserved differences between predominantly men's and women's jobs, we include dummy variables measuring the gender composition of the respondent's job. Finally, we include measures of organizational size and economic sector.

Family obligations. To measure family demands on workers' energy, we use indicators of marital and parental status.³ To test the possibility that marriage and parenthood have different effects on perceived work effort for women and men, we estimated interactions between these measures and respondents' gender.

Individual controls. Because workers with greater job-relevant ability and skill report that tasks require less effort (Meijman et al. 1986), we include both objective measures of human capital and subjective measures of job-related ability. Following Felstead, Gallie, and Green (2002), we measure education with dummy variables for five levels of British educational attainment, as well as measures of the length of a respondent's completed on- and off-the-job training time, age, and job tenure. We created an index of self-assessed ability based on items that asked respondents to evaluate their competence in performing specific job-relevant tasks.

Additional Measures—1997 NSCW (U.S.)

Job characteristics. We include measures of the respondent's perceived job security, whether the job is temporary or part-time, and whether the respondent is a union member. To capture aspects of job difficulty, we include measures of the need to learn new things, job autonomy, managerial authority, coworker and supervisor support, and the availability of on-the-job training. To avoid losing respondents without supervisors, we created a set of dummy variables indicating a supportive supervisor, an unsupportive supervisor, and no supervisor. We also include measures of organizational size, economic sector, and principal industry.⁴

Because job characteristic variables relating to job difficulty are limited in the 1997 NSCW, we supplement the NSCW with occupation-level measures from the Occupational Information Network ("O*NET") 3.1 database (U.S. Department of Labor, National O*NET Consortium 2007).⁵ Physical difficulty is tapped by measures of the physical strength, endurance, balance, and coordination required in the occupation. Cognitive difficulty is measured by the average experience, education, and on-the-job training needed to perform the occupation, and by the importance of mathematics skill in the occupation. Interpersonal difficulty is

represented by measures of the importance of social perceptiveness, influence over others, and assisting or caring for others in the occupation.

Unfortunately, rather than asking respondents separate questions about the gender and race composition of their jobs, the 1997 NSCW combined the two dimensions in a single measure. It is likely, however, that this measure primarily reflects the job's gender composition, because jobs in the United States are considerably more segregated on the basis of gender than on the basis of race, and race segregation without accompanying gender segregation is uncommon (Padavic and Reskin 2002). We therefore used this measure to capture otherwise unobserved differences in predominantly men's and predominantly women's jobs.

Family obligations. Family and household demands are tapped by measures of time spent on household chores, child care, and elder care, as well as by indicators of marital and parental status.⁶ As in the U.K. analysis, we estimated interactions between marital and parental status and respondent's gender.

Individual controls. Human capital variables include education, tenure with the current employer, and work experience since age 18. A subjective measure of job-ability fit asked respondents to evaluate whether their jobs allowed them to use their skills and abilities.

RESULTS

Descriptive Results

Appendix A reports descriptive statistics for variables used in our analyses of the 1997 Skills Survey, by respondent gender. No clear pattern emerges to suggest that either women or men have more demanding jobs. With respect to characteristics bearing on productivity expectations, women report more computer use in their jobs, but men use computers in a more complex manner (for example, for advanced computations as opposed to clerical tasks). Men are more likely than women to participate in quality circles, but not work teams. Women perceive their jobs as more secure than men do and are less likely to be self-employed, but they are also more likely to hold temporary and part-time jobs. With respect to features bearing on job difficulty, means on all job variables that contribute to physical or cognitive job difficulty are higher for men than for women. Influencing others is more important in men's jobs, but cooperating with and caring for others is more important in women's jobs. Men report that

their jobs require more use of specialized knowledge and a longer learning time. Men are more often managers and less often frontline workers, and the scope of their responsibilities is broader—characteristics that may both facilitate and complicate job performance. Women and men are equally likely to be married and to be parents.

Appendix B reports descriptive statistics for variables used in our analyses of the 1997 NSCW, by respondent gender. Here, as well, there is no clear evidence that one gender's jobs are more demanding than the other's. With respect to job features relating to performance expectations, in contrast to Britain, men, rather than women, are more likely to work in temporary jobs, but women are more likely to hold part-time jobs. Men are more likely to be self-employed, but also more likely to be union members. With respect to features bearing on job difficulty, men's occupations require more preparation and training and greater physical abilities, but women's occupations involve higher levels of social perceptiveness, influencing people, caring for others, and mathematical skill. Men again have greater autonomy and authority. Women are more likely to have supportive supervisors and access to employer-sponsored training. In contrast to British workers, men in the United States are more likely to be married, but men and women are equally likely to be parents. As expected, women spend more daily hours on housework and child care.

Multivariate Results

Skills Survey. Because our dependent variable is ordinal, we estimate ordered logistic regression models. Results from the analysis of the 1997 Skills Survey appear in Table 2. Being a woman is positively associated with assessment of required work effort. In the bivariate model (model 1), the odds of reporting stronger agreement with the statement "My job requires that I work very hard" are 22 percent greater for women than for men [$\exp(b) = 1.22$]. Model 2 adds measures of job characteristics. The inclusion of these variables does not reduce the association between gender and assessment of required work effort. In fact, the opposite occurs: The coefficient *increases* in size, indicating that differences between men and women on some of these factors partially suppress the gender difference in the outcome in the bivariate model. With job characteristics controlled, women's odds of reporting greater required effort are approximately 39 percent higher than men's [$\exp(b) = 1.39$].

Few of the job characteristics related to performance expectations affect workers' assessments of required effort. Union members report that their jobs demand less effort, whereas self-employed workers report that

TABLE 2: Results from Ordered Logistic Regression of Required Work Effort Assessment on Selected Variables, 1997 Skills Survey of the Employed British Workforce (U.K.)

	<i>Model 1</i>	<i>Model 2</i>	<i>Model 3</i>	<i>Model 4</i>
Female	0.20** (0.08)	0.33** (0.12)	0.31** (0.12)	0.32** (0.12)
<i>Job Characteristics</i>				
Importance of computer use		0.07 (0.04)	0.07 (0.04)	0.07 (0.05)
How use computer		0.04 (0.07)	0.04 (0.07)	0.05 (0.07)
Member of quality circle		-0.15 (0.09)	-0.15 (0.10)	-0.16 (0.10)
Work in team		-0.02 (0.04)	-0.02 (0.03)	-0.01 (0.03)
Secure job		0.10 (0.10)	0.10 (0.10)	0.11 (0.10)
Temporary job		0.06 (0.18)	0.07 (0.18)	0.08 (0.18)
Part-time		-0.18 (0.12)	-0.17 (0.13)	-0.19 (0.13)
Union member		-0.20* (0.10)	-0.21* (0.10)	-0.24* (0.11)
Self-employed		0.87** (0.29)	0.88** (0.30)	0.83** (0.30)
Physical strength and stamina		0.25*** (0.04)	0.25*** (0.04)	0.24*** (0.04)
Risk of physical injury		0.02 (0.03)	0.02 (0.03)	0.02 (0.03)
Physical discomfort		0.05 (0.03)	0.05 (0.03)	0.05 (0.03)
Use of tools/machinery		-0.06* (0.03)	-0.06* (0.03)	-0.07* (0.03)
Problem solving		-0.12* (0.05)	-0.12* (0.05)	-0.10 (0.05)
Vigilance		0.21** (0.07)	0.21** (0.07)	0.17** (0.07)
Self-management		0.23** (0.06)	0.23*** (0.06)	0.21** (0.06)
Planning others' activities		0.15** (0.04)	0.15** (0.04)	0.14** (0.04)
Use of mathematics		-0.08* (0.04)	-0.08* (0.04)	-0.09* (0.04)
Cooperating with or caring for others		0.05 (0.05)	0.05 (0.06)	0.06 (0.06)
Influencing others		0.13** (0.05)	0.14** (0.05)	0.15** (0.05)
Use of specialist knowledge		0.03 (0.04)	0.03 (0.05)	0.02 (0.05)
Advanced degree required of current applicant for job		0.50** (0.17)	0.52** (0.17)	0.47** (0.18)
Time required to learn job		0.08* (0.04)	0.08* (0.04)	0.11** (0.04)
Autonomy		-0.01 (0.09)	-0.01 (0.09)	-0.07 (0.09)
Authority—rank				
Manager		0.16 (0.13)	0.13 (0.14)	0.11 (0.14)
Supervisor		-0.23 (0.14)	-0.21 (0.14)	-0.21 (0.14)
Authority—job scope		0.06* (0.03)	0.06* (0.03)	0.06* (0.03)
On-the-job training provided		0.03 (0.09)	0.03 (0.09)	0.08 (0.11)
Job gender composition				
Mainly male job		-0.34* (0.15)	-0.33* (0.15)	-0.36* (0.15)
Mixed-sex job		-0.22 (0.12)	-0.23 (0.12)	-0.24* (0.12)
Organizational size (in hundreds)		0.002 (0.006)	0.002 (0.006)	0.003 (0.006)
Sector				
Public		0.45 (0.26)	-0.46 (0.27)	0.43 (0.27)
Private for-profit		0.41 (0.26)	0.42 (0.27)	0.39 (0.27)
<i>Family and Household Characteristics</i>				
Marital status				
Married			0.18 (0.12)	0.11 (0.14)
Previously married			0.24 (0.16)	0.17 (0.18)
Cohabiting			0.14 (0.16)	0.10 (0.17)
Parent			-0.13 (0.09)	-0.09 (0.10)
<i>Individual Controls</i>				
Education				
University/professional				0.08 (0.11)
Advanced secondary/ vocational				-0.19 (0.09)

(continued)

TABLE 2: (continued)

	Model 1	Model 2	Model 3	Model 4
General secondary				0.05 (0.10)
Other secondary				0.04 (0.13)
Length of training received				-0.01 (0.02)
Age				0.004 (0.005)
Job tenure				0.005 (0.007)
Self-appraisal of job competence				0.46*** (0.09)
Intercept 4	-0.49*** (0.06)	-4.40*** (0.48)	-4.49*** (0.49)	-6.39*** (0.61)
Intercept 3	2.04*** (0.07)	-1.58*** (0.47)	-1.68*** (0.48)	-3.48*** (0.60)
Intercept 2	5.15*** (0.28)	1.58** (0.54)	1.48** (0.54)	-0.34 (0.65)
Likelihood ratio χ^2	6.78**	339.99***	343.82***	374.69***
df	1	34	38	46
n	2,458	2,361	2,361	2,347

NOTE: Standard errors are in parentheses.

* $p < .05$. ** $p < .01$. *** $p < .001$ (two-tailed tests).

their jobs demand more. With respect to job difficulty, demands for physical strength and stamina increase reported required work effort, but use of tools, equipment, or machinery *lowers* reported required effort. Demands for vigilance, self-management, and planning the activities of others increase required work effort, but mathematics use reduces it. Jobs that require influencing others are associated with greater required work effort, as are jobs that require an advanced degree or a longer learning time, or that involve a broader scope. Even with extensive job controls, gender composition matters: Levels of required effort are lower in both mainly men's jobs (marginally, $p < .10$) and mixed-gender jobs than in mainly women's jobs.

Model 3 adds measures of family characteristics. The effects of marital status and parenthood on required work effort do not differ for women and men: The interactions between marital and parental status and respondent gender were not statistically significant, and, thus, are not presented here. With family variables taken into account, the odds of stronger agreement that one's job requires very hard work are still 36 percent greater for women than for men [$\exp(b) = 1.36$]. Interestingly, family obligations, as measured by marriage and parenthood, do not affect workers' reports of required effort. In model 4, which adds individual controls, women's odds of reporting greater job effort are roughly 38 percent higher than men's [$\exp(b) = 1.38$].

NSCW. Results from the analysis of the 1997 NSCW appear in Table 3. As in Britain, women have significantly higher assessments of required work effort than men do. In the bivariate model (model 1), the odds of

reporting stronger agreement with the statement that “My job requires that I work very hard” are 21 percent greater for women [$\exp(b) = 1.21$].

Model 2 adds measures of job characteristics. As in the British sample, the inclusion of these variables *increases* the gender difference in effort. With job characteristics controlled, women’s odds of reporting greater required effort are approximately 46 percent higher than men’s [$\exp(b) = 1.46$]. None of the variables bearing on performance expectations has a significant effect on reported required effort. However, several variables related to job difficulty do have an impact: A repeated need to learn new things and greater managerial authority increase needed effort, while caring for others and part-time work reduce required effort.⁷ In the United States data, in contrast to the British results, there are no significant differences in reported required effort among mainly men’s, mixed-gender, and mainly women’s jobs.⁸

Model 3 adds family and household characteristics. In the presence of these variables, the gender gap does not shrink; it widens a bit further. The interactions between marital and parental status and respondent gender were not statistically significant, and thus, are not presented here. The odds of stronger agreement that one’s job requires very hard work are now roughly 54 percent greater for women than for men [$\exp(b) = 1.54$]. There is some evidence that family and household demands deplete workers’ energy: Being a parent increases reported required work effort, as does spending more time on household chores. Interestingly, given parental status, hours spent on child care do not affect required effort. In model 4, which adds individual controls, women’s odds of reporting greater required effort decline slightly, but are still 49 percent greater than men’s [$\exp(b) = 1.49$].⁹

INTERPRETING THE DIFFERENCE BETWEEN WOMEN AND MEN

Even when women and men are matched on extensive measures of job characteristics, family and household responsibilities, and individual qualifications, women report that their jobs require more effort than men do. Though our analysis cannot provide a definitive answer to the question of why this is so, the most plausible interpretation of the difference between women and men in reports of required effort is that work effort requirements are indeed greater for women than for men, *even when they hold the same job*, because employers apply stricter performance standards to women than to men. Prevailing gender beliefs constitute men and women

TABLE 3: Unstandardized Coefficients from Ordered Logistic Regressions of Work Effort on Selected Variables, 1997 National Study of the Changing Workforce (U.S.)

	Model 1	Model 2	Model 3	Model 4
Female	0.19** (0.07)	0.38*** (0.09)	0.43*** (0.09)	0.40*** (0.09)
<i>Job characteristics</i>				
Likelihood of job loss		-0.03 (0.05)	-0.01 (0.05)	-0.03 (0.05)
Temporary job		0.15 (0.12)	0.17 (0.13)	0.19 (0.13)
Union member		0.05 (0.11)	0.03 (0.11)	0.07 (0.12)
Self-employed		-0.08 (0.25)	-0.03 (0.25)	-0.14 (0.26)
Job requires learning		0.65*** (0.05)	0.67*** (0.05)	0.61*** (0.05)
Physical abilities (O*NET)		0.11 (0.13)	0.09 (0.13)	0.13 (0.13)
Preparation and training (O*NET)		0.0003 (0.001)	0.02 (0.04)	-0.02 (0.05)
Social perceptiveness (O*NET)		0.13 (0.08)	0.13 (0.08)	0.14 (0.09)
Influencing people (O*NET)		-0.02 (0.06)	-0.01 (0.06)	-0.01 (0.06)
Math skill (O*NET)		-0.12 (0.07)	-0.13* (0.07)	-0.11 (0.07)
Care for others (O*NET)		-0.14* (0.07)	-0.17* (0.07)	-0.19** (0.07)
Part-time		-0.66*** (0.10)	-0.68*** (0.10)	-0.66*** (0.11)
Autonomy		0.01 (0.06)	0.01 (0.06)	-0.03 (0.06)
Managerial authority		0.34*** (0.08)	0.32*** (0.08)	0.32*** (0.08)
Coworker support		0.03 (0.06)	0.03 (0.06)	-0.005 (0.06)
Supervisor quality				
Unsupportive supervisor		-0.17 (0.10)	0.10 (0.40)	0.25 (0.41)
Supportive supervisor		0.11 (0.40)	-0.16 (0.10)	-0.20* (0.10)
Training program		-0.14 (0.09)	-0.16 (0.09)	-0.17 (0.09)
Job gender composition				
Mainly male job		-0.01 (0.10)	0.02 (0.10)	0.03 (0.10)
Mixed-gender job		0.12 (0.09)	0.13 (0.09)	0.12 (0.09)
Organizational size (in hundreds)		0.001 (0.001)	0.001 (0.001)	0.001 (0.001)
Sector				
Nonprofit		-0.05 (0.14)	-0.04 (0.14)	-0.02 (0.14)
Public		-0.38* (0.16)	-0.36* (0.16)	-0.37* (0.17)
<i>Family and household characteristics</i>				
Marital Status				
Married			0.15 (0.11)	0.11 (0.11)
Previously married			-0.32 (0.19)	-0.25 (0.19)
Cohabiting			0.51** (0.14)	0.31* (0.14)
Parent			0.29** (0.09)	0.23* (0.10)
Daily hours spent on chores			0.05** (0.02)	0.05** (0.02)
Daily hours spent on childcare			-0.02 (0.02)	-0.03 (0.02)
Weekly hours spent on eldercare			0.001 (0.008)	0.005 (0.008)
<i>Individual controls</i>				
Education				
Graduate/professional				0.54** (0.21)
College				0.31 (0.19)
Some college				0.11 (0.17)
High school				0.12 (0.16)
Job tenure				0.01 (0.01)
Work experience				-0.02*** (0.004)
Self-appraisal of job-ability fit				0.24*** (0.06)
Intercept 4	0.31*** (0.05)	-1.68** (0.47)	-2.38*** (0.49)	-2.19*** (0.52)
Intercept 3	4.82*** (0.06)	-0.02 (0.47)	-0.68 (0.49)	-0.47 (0.52)
Intercept 2	2.96*** (0.09)	1.18* (0.47)	0.53 (0.49)	0.77 (0.53)
Likelihood ratio χ^2	8.61**	352.22***	387.20***	447.38***
df	1	36	43	50
n	3,524	3,237	3,172	3,157

NOTE: O*NET = Occupational Information Network. Models also include a set of controls for 1990 Census Bureau industry classification; standard errors are in parentheses.

* $p < .05$. ** $p < .01$. *** $p < .001$ (two-tailed tests).

as two significantly different categories and sustain mental models of the distinguishing characteristics and behaviors of individuals in each category (Ridgeway and Correll 2004). Extensive social psychological research shows that observers rate men, and the characteristics associated with them, as more competent and worthy than women and the characteristics linked to them (Conway, Pizzamiglio, and Mount 1996; Fiske et al. 2002). Consistent with these assumptions about men's and women's competence, people evaluate the same performance as better when told it was done by a man than when told it was done by a woman (Bowen, Swim, and Jacobs 2000). Similarly, when an indisputably excellent performance is produced jointly by a man and a woman, observers assume the man contributed more than the woman did (Heilman and Haynes 2005).

Even when there is no ambiguity concerning either the quality of a performance or the person responsible for it, observers still draw different inferences based on gender. People are more likely to attribute a woman's successful performance to luck, whereas a man's successful performance is more often attributed to skill (Swim and Sanna 1996). Evaluators require higher levels of performance from women than from men before concluding that women are reliably competent (Biernat and Kobryniewicz 1997; Foschi 1996). Women who have surmounted all these hurdles to establish their competence face a final obstacle: Because they violate prescriptive beliefs that women *should* conform to traditional notions of femininity, they are disliked and viewed as personally difficult unless they are careful to demonstrate that they place their work group's interests above their own (Heilman 2001; Ridgeway 1982). Yet, qualitative work shows that women's efforts to bring groups together and ensure cooperation among coworkers are often treated as invisible (Fletcher 1999). In sum, it is highly likely that women *do* have to work harder than men, even in the same jobs, in order to perform at a level that their employers consider satisfactory.

To the extent, if any, that women overestimate their employers' effort requirements, we suspect that women anticipate strict performance standards because they are likely to have been held to such standards by employers, educators, and other evaluators in the past. Women are more likely than men to have seen their contributions repeatedly ignored, criticized, or rejected, and thus are more likely than men to have learned the lesson that their work must be outstanding in every respect in order to attract notice or win approval (Valian 1998). An experiment conducted by Major, McFarlin, and Gagnon (1984) lends support to this view. When men and women were asked to work on a dot-counting task as long as they judged appropriate in exchange for a given payment, women worked longer, completed more dot sets, and completed more sets correctly than

men did—suggesting that women perceived the assignment as demanding more effort than men did. Moreover, women, but not men, worked longer when they believed they were being observed, suggesting that women believed that their “employer”—in this case, the experimenter—wanted more effort from them than men believed he or she did.

Other interpretations of the required-effort difference between women and men seem less plausible, although our data do not permit us to rule them out. One possibility rests on the widely held view, noted above, that workers judge effort relative to a shared social norm. It could be that women and men look to *different* social norms, with women comparing their required effort to the work effort norm *for women* while men compare their required effort to the work effort norm *for men*. If the “normal” amount of effort is lower for women than for men, women would compare their own required effort to a lower standard than men would. Faced with the same objective effort demands, then, women could be expected to report greater subjective required effort than men do.

Two arguments weigh against this interpretation, however. First, we have no reason to believe that the effort norm is lower for women than for men. Indeed, our results provide some evidence against this view. If gender-specific effort norms exist, they would presumably be influenced by typical levels of effort in predominantly men’s jobs (for the men’s norm) and predominantly women’s jobs (for the women’s norm). Thus, the effort norm for women might be lower than the effort norm for men if women’s jobs are generally less demanding than men’s jobs. Yet, our results show no significant difference in required effort by job gender composition in the United States, and *greater* required effort in predominantly women’s jobs in Britain. Second, both women and men should be more likely to make gender-specific comparisons if their jobs are held primarily by members of their own gender. Thus, if gender-specific effort norms exist, we should see a greater difference between men’s and women’s reports of required effort in highly gender-segregated jobs than in mixed-gender jobs. We investigated this possibility in supplementary models that included an interaction between gender and job gender composition, but these interactions failed to reach statistical significance in either country.

A second alternative interpretation is that workers deliberately misreport their required work effort to survey interviewers. Unlike most forms of “social desirability” bias, which typically tilt responses in the same direction for all respondents, this bias would lead women to inflate their reports and men to deflate theirs. There are no obvious reasons, however, why women and men would intentionally slant their responses in opposite directions. Workers might inflate their reports of required effort if they

feared that their answers could be reported to their employers, but there is no reason to think that women are more susceptible to this fear than men.¹⁰

Conceivably, women and men might wish to enact traditional gender identities through their survey responses, but even if this were the case, it is not clear that this tendency would lead to inflated responses for women and/or deflated responses for men. Men might deflate their responses if they wished to suggest that their personal ability or strength makes their work easy for them, or perhaps to imply a reserve of endurance and stoicism. But they might also *inflate* their responses, because “hard work” and related concepts such as “industriousness” and “vigor” are part of the traditional masculine stereotype (Heilman et al. 1989) and consistent with the traditional masculine breadwinner role. Admitting that one’s job does not require much effort could make a man appear feeble or fainthearted; a “real man” would seek more challenging work. The relationship between “hard work” and traditional femininity is even less clear. Possibly, women might enact a feminine identity by appearing to be “good” workers who work as hard as they are asked to, but this would apply to the extent to which their *exerted* effort matched the required level of effort—not to the required level of effort itself. On the other hand, given the traditional ideology of separate spheres of work and home for men and women, the notion of “hard work” seems inconsistent with traditionally feminine behavior, so that women should be more likely to *deflate* their reports of required effort than to inflate them.

Nevertheless, we sought to investigate this interpretation by estimating supplementary models including interactions between respondent gender and job gender composition, as well as interactions between gender and measures of three conventionally masculine job characteristics (the importance of physical strength and skill, use of tools and machinery, and use of mathematics) and one conventionally feminine job characteristic (the importance of caring for or cooperating with others). We reasoned that any inclinations to enact traditional gender identities through survey responses should be especially evident when respondents engage in work that is performed predominantly by the other gender or traditionally labeled as appropriate for the other gender. Men in “women’s” jobs might feel a greater need to demonstrate their masculinity than other men do; women in “men’s” jobs might similarly feel a greater need to demonstrate their femininity. If demonstrating masculinity takes the form of deflating required effort and demonstrating femininity takes the form of inflating it, we should see those tendencies most strongly among men and women in nontraditional jobs. The results provide little evidence to support the gender-identity interpretation. As noted above, we found no statistically significant

interaction between gender and job gender composition in either country. Moreover, none of the interactions between gender and traditionally gendered job characteristics reached statistical significance in Britain. In the United States, only one such interaction reached significance: Performing care work lowered men's reported required effort relative to women's.

On the other hand, a nonsignificant statistical interaction between respondent's gender and job gender composition or respondent's gender and traditionally feminine or masculine job attributes on reports of required work effort is consistent with the view that women are held to higher performance standards in both "masculine" and "feminine" jobs. Qualitative studies shed light on the mechanisms at work here. In jobs dominated by men, such as litigator and correctional officer in a men's prison, women must work hard to overcome preconceptions that they are insufficiently aggressive to perform the job (Britton 1997; Pierce 1995). In roles dominated by women, such as paralegal and flight attendant, women instead confront prescriptive expectations that they will exert themselves to provide nurturance and emotional support—expectations that are not imposed on their male counterparts (Hochschild 1983; Pierce 1995).

CONCLUSION

Across five surveys and three decades, women report greater required work effort in both Britain and the United States. In 1997, the gross gender gap in assessment of required effort was remarkably similar in both countries: The odds of agreeing more strongly with the statement, "My job requires me to work very hard," were 22 percent greater for women in Britain and 21 percent greater in the United States. Somewhat surprisingly, this gender difference is not explained by corresponding differences in job demands. Yet, of these demands, the gender gap in reported required work effort only increases. Nor do family and household responsibilities provide the answer: They appear to explain only a very small portion of the gender difference in Britain, and (with more detailed measures) none at all in the United States. In our final models, women's odds of reporting greater required effort were 38 percent higher than men's in Britain and 49 percent higher in the United States. The most plausible interpretation of this persistent difference, in our view, is that employers impose higher performance standards on women than on men, even when men and women hold the same jobs.

The comparative setting of our empirical investigation strengthens our study, because the two analyses can be viewed as replications of each other. Although the two countries that we study share many cultural similarities,

their employment environments differ in several respects. In Britain, a historically strong labor movement has more successfully protected workers from poor working conditions and wage inequality than has its counterpart in the United States. Moreover, women's employment differs between the two countries, with much higher part-time and intermittent employment in Britain. Given these differences, the similarity of the results in the two countries bolsters our confidence in their robustness and generality.

Our findings open up several intriguing avenues for future research, especially in light of the trend over time toward increasing absolute levels of required effort. An obvious next step, if appropriate data can be obtained, is to test the alternative mechanisms that we discuss as alternative interpretations of the association between gender and required effort. Consequences of this association are also of interest. If women must work harder than men, they may also experience greater stress, exhaustion, and burnout. The findings of a few studies are consistent with this conjecture (Day and Livingstone 2003; Fusilier, Ganster, and Mayes 1986), but research on gender differences in these outcomes has been limited.¹¹ Researchers could also profitably explore the extent to which women's required work effort affects family well-being, as it is well known that stress, exhaustion, and burnout can spill over into family life. Women's greater required work effort may also play a role in sustaining differences between men's and women's career trajectories. As Valian (1998) points out, expending great effort for a small reward entails psychological costs, such as feelings of futility or self-doubt. An interesting question for future research is the extent to which high levels of required effort influence women's and men's decisions concerning whether or not to persevere or seek advancement in their initially chosen careers.

Our results show that women *have to* try harder than men at work, across a wide variety of jobs and in two distinct national settings. Our analyses also eliminate the two most obvious possible explanations for this gender difference—a difference in the characteristics of the jobs that women and men hold and the potentially greater depletion of women's energy due to family and household responsibilities. These findings strongly suggest that the explanation lies in subtle but nonetheless powerful gendered mechanisms at work. As deliberate, explicit discrimination becomes less common, the influence of less visible gendered mechanisms on women's work experiences and rewards is becoming increasingly important. The growing body of research that investigates these mechanisms will, we hope, inform both organizational decision makers' formulation of employment policies and individual women's strategic choices as they pursue their careers.

APPENDIX A: Variable Descriptions and Descriptive Statistics, 1997 Skills Survey of the Employed British Workforce (U.K.)

Variable	Description	Mean (SD)	
		Men	Women
Required Effort	My job requires that I work very hard. 1 = strongly disagree, 2 = disagree, 3 = agree, 4 = strongly agree	3.25** (0.69)	3.33 (0.64)
<i>Job Performance Expectations</i>			
Importance of computer use in job	1 = not at all important to 5 = essential	2.94** (1.61)	3.11 (1.69)
Complexity of computer use in job	1 = straightforward, 2 = moderate, 3 = complex, 4 = advanced	2.36** (1.21)	2.23 (1.05)
Member of quality circle	1 = member of a quality circle, 0 = not	0.32*** (0.47)	0.25 (0.43)
Extent of work in team	1 = none, 2 = little, 3 = some, 4 = all	2.76 (1.20)	2.75 (1.24)
Secure job	1 = chance of losing job in next year, 0 = no chance of losing job	0.73*** (0.44)	0.81 (0.39)
Ease of finding a similar job	1 = very difficult to 4 = very easy	2.00*** (0.88)	2.20 (0.89)
Temporary job	1 = temporary, 0 = otherwise (self-employed = 0)	0.06* (0.23)	0.08 (0.27)
Part-time job	1 = job is part-time, 0 = job is not part-time	0.04*** (0.20)	0.42 (0.49)
Union member	1 = union member, 0 = not a union member	0.32 (0.47)	0.32 (0.47)
Self-employed	1 = self-employed, 0 = otherwise	0.15*** (0.35)	0.07 (0.25)
<i>Job Difficulty</i>			
Physical strength and stamina	Scale: Importance of physical strength and physical stamina	2.96*** (1.32)	2.51 (1.27)
Risk of physical injury	Exposed to risk of serious injury: 1 = less often than ¼ of the time to 5 = all/nearly all of the time	2.19*** (1.64)	1.60 (1.32)
Physical discomfort	Exposed to excessive noise, bad weather, heat or cold: 1 = less often than ¼ of the time to 5 = all/nearly all of the time	2.28*** (1.62)	1.65 (1.29)
Use of tools/machinery	Importance of knowledge of how to operate tools/equipment/machinery: 1 = not at all important to 5 = essential	3.63*** (1.49)	3.04 (1.57)
Problem solving	Scale: Importance of analyzing complex problems and thinking of their solutions: 1 = not at all important to 5 = essential	3.60*** (1.15)	3.26 (1.26)
Vigilance	Scale: Importance of spotting problems, ensuring there are no errors, noticing mistakes, attention to detail: 1 = not at all important to 5 = essential	4.26** (0.77)	4.15 (0.88)

Self-management	Scale: Importance of planning own activities, organizing own time, thinking ahead: 1 = <i>not at all important</i> to 5 = <i>essential</i>	3.94** (0.94)	3.79 (1.11)
Planning others' activities	Importance of planning others' activities: 1 = <i>not at all important</i> to 5 = <i>essential</i>	2.82** (1.40)	2.64 (1.45)
Use of mathematics	Scale: Importance of basic to advanced mathematical procedures: 1 = <i>not at all important</i> to 5 = <i>essential</i>	2.91*** (1.25)	2.57 (1.31)
Cooperating with or caring for others	Scale: Importance of dealing with people, listening to colleagues, counseling, advising, or caring for customers: 1 = <i>not at all important</i> to 5 = <i>essential</i>	3.75*** (0.93)	4.05 (0.96)
Influencing others	Importance of making presentations and influencing others: 1 = <i>not at all important</i> to 5 = <i>essential</i>	2.71*** (1.18)	2.50 (1.18)
Use of specialist knowledge	Importance of specialist knowledge or understanding: 1 = <i>not at all important</i> to 5 = <i>essential</i>	4.01*** (1.12)	3.76 (1.32)
Advanced degree required for job	1 = <i>professional or university degree</i> , 0 = <i>other</i>	0.07 (0.26)	0.07 (0.26)
Time required to learn job	1 = <1 month, 2 = <1 month, 3 = 1-11 months, 4 = 1-2 years, 5 = 2+ years	3.60*** (1.23)	3.05 (1.22)
Autonomy	Scale: Influence over tasks, how hard you work, how to do a task, work standards; extent of supervision; choice over how to do job	3.25* (0.57)	3.20 (0.59)
Authority—rank			
Manager	1 = <i>manager</i> , 0 = <i>not</i>	0.39*** (0.49)	0.31 (0.46)
Supervisor	1 = <i>supervisor</i> , 0 = <i>not</i>	0.22 (0.41)	0.19 (0.39)
Frontline worker	1 = <i>frontline worker</i> , 0 = <i>not</i>	0.61*** (0.49)	0.69 (0.46)
Authority—job scope	Scale: Number of job responsibilities: 0-7	4.58*** (1.73)	4.09 (1.02)
On-the-job training provided	1 = <i>been trained on job</i> , 0 = <i>not trained on job</i>	0.33 (0.47)	0.32 (0.47)
<i>Other Job and Organizational Characteristics</i>			
Job sex composition			
Mainly male job	1 = <i>job done mainly/almost exclusively by men</i> , 0 = <i>not</i>	0.72*** (0.45)	0.08 (0.27)
Mainly female job	1 = <i>job done mainly/almost exclusively by women</i> , 0 = <i>not</i>	0.04*** (0.20)	0.60 (0.49)
Mixed-gender job	1 = <i>job done by a fairly equal mixture of men and women</i> , 0 = <i>not</i>	0.24*** (0.42)	0.32 (0.47)
Organizational size	Number of employees (in hundreds)	3.16* (8.16)	2.42 (6.31)
Sector			
Nonprofit	1 = <i>nonprofit</i> , 0 = <i>not</i>	0.01** (0.12)	0.04 (0.19)
Public	1 = <i>public</i> , 0 = <i>not</i>	0.17*** (0.38)	0.36 (0.48)
Private for-profit	1 = <i>private</i> , 0 = <i>not</i>	0.66*** (0.47)	0.54 (0.50)

(continued)

APPENDIX A: (continued)

Variable	Description	Mean (SD)	
		Men	Women
<i>Family and Household Characteristics</i>			
<i>Marital Status</i>			
Married	1 = married, 0 = not	0.61 (0.49)	0.58 (0.49)
Previously married	1 = divorced, widowed, or separated, 0 = not	0.08*** (0.26)	0.17 (0.38)
Cohabiting	1 = cohabiting, 0 = not	0.10 (0.30)	0.10 (0.30)
Never married	1 = never married, 0 = not	0.22*** (0.41)	0.15 (0.36)
Parent	1 = has 1 or more financially dependent children under 16, 0 = does not	0.43 (0.50)	0.42 (0.49)
<i>Individual Controls</i>			
<i>Education^a</i>			
University/professional	1 = university/professional = yes, 0 = not	0.34 (0.47)	0.37 (0.48)
Advanced secondary/vocational	1 = advanced secondary/vocational, 0 = not	0.55 (0.50)	0.58 (0.49)
General secondary	1 = general secondary, 0 = not	0.37*** (0.48)	0.28 (0.45)
Other secondary	1 = other secondary, 0 = not	0.27 (0.44)	0.23 (0.42)
No qualifications	1 = no qualifications, 0 = not	0.11 (0.31)	0.08 (0.28)
Length of training received	0 = none, 1 = less than one week, 2 = less than one month, 3 = 1-3 months, 4 = 3-6 months, 5 = 6-12 months, 6 = 1-2 years, 7 = over 2 years	3.32** (3.11)	2.89 (3.01)
Age	Age at last birthday	38.78 (10.28)	39.10 (10.31)
Job tenure	Years with current employer (for self-employed, time self-employed in job)	8.95*** (8.65)	6.76 (7.02)
Self-appraisal of job competence scale	Effectiveness in performing 46 tasks: 1 = hardly ever to 5 = always	4.19 (0.48)	4.19 (0.48)
Number of cases		1,300	1,158

NOTE: Sex difference significant at: * $p < .05$, ** $p < .01$, *** $p < .001$. Descriptive statistics are unweighted.

^aSee Felstead, Gallie, and Green (2002) for details of education category coding.

APPENDIX B: Variable Descriptions and Descriptive Statistics, 1997 National Study of the Changing Workforce (U.S.)

Variable	Description	Mean (SD)	
		Men	Women
Required Effort	My job requires that I work very hard. 1 = strongly disagree, 2 = disagree, 3 = agree, 4 = strongly agree	3.40* (0.82)	3.46 (0.83)
Job Performance Expectations			
Likelihood of job loss	1 = very likely to 4 = not at all likely	2.83 (0.83)	2.85 (0.85)
Temporary job	1 = temporary job, 0 = not	0.32** (0.47)	0.27 (0.45)
Part-time job	1 = part-time, 0 = not	0.10*** (0.29)	0.21 (0.41)
Union member	1 = union member, 0 = not	0.15* (0.36)	0.13 (0.33)
Self-employed	1 = self-employed, 0 = not	0.20*** (0.40)	0.13 (0.34)
Job Difficulty			
Job requires learning	1 = strongly disagree, 2 = disagree, 3 = agree, 4 = strongly agree	3.52 (0.77)	3.48 (0.82)
Preparation and training (O*NET)	1 = occupations that need little or no educational, experience, and training preparation to 5 = extensive preparation needed	2.97*** (1.12)	2.72 (1.14)
Influencing people (O*NET)	Importance of selling or influencing others: 1 = not important to 5 = extremely important	1.97* (1.15)	2.04 (1.01)
Social perceptiveness (O*NET)	Importance of social perceptiveness: 1 = not important to 5 = extremely important	2.46*** (0.98)	2.92 (0.87)
Physical abilities (O*NET)	Scale: Frequency of standing; climbing; walking or running; kneeling, crouching, or crawling; keeping balance; bending or twisting; making repetitive motions: 0 = never, 1 = sometimes, 2 = often, 3 = frequently, 4 = always	1.40*** (0.50)	1.17 (0.33)
Mathematical skill (O*NET)	Scale: Importance of ability to choose right mathematical methods to solve problems; knowledge of arithmetic, algebra, geometry, calculus, statistics: 1 = not important to 5 = extremely important	2.80*** (0.75)	2.93 (0.74)
Care for others (O*NET)	Scale: Importance of the provision of personal assistance, medical attention, emotional support, or other personal care to coworkers, customers, or patients: 1 = not important to 5 = extremely important	2.06*** (0.79)	2.64 (1.02)

(continued)

APPENDIX B: (continued)

Variable	Description	Mean (SD)	
		Men	Women
Autonomy	Scale: Freedom to decide what s/he does on job; responsibility to decide how job gets done; has a lot of say about what happens on job; decides when to take breaks: 1 = <i>strongly disagree</i> , 2 = <i>disagree</i> , 3 = <i>agree</i> , 4 = <i>strongly agree</i>	3.21*** (0.73)	3.06 (0.75)
Managerial authority	Number of employees respondent has responsibility for	0.32* (0.53)	0.28 (0.55)
Coworker support	Scale: Respondent feels part of his/her work group; looks forward to being w/coworkers: 1 = <i>strongly disagree</i> to 4 = <i>strongly agree</i>	3.83 (0.83)	3.86 (0.89)
Supervisor quality	Scale: Supervisor informs of things I need to know to do job well; has realistic expectations; recognizes good job; is fair; is supportive with work problems; accommodates personal needs: 0 = <i>not</i> , 1 = <i>strongly disagree</i> to 4 = <i>strongly agree</i>	3.47 (0.59)	3.48 (0.63)
Supportive supervisor	Respondent scores 3 or above on supervisor quality scale	0.57*** (0.49)	0.64 (0.47)
Unsupportive supervisor	Respondent scores less than 3 on supervisor quality scale	0.43*** (0.49)	0.37 (0.48)
No supervisor	1 = <i>no supervisor</i> , 0 = <i>not</i>	0.32** (0.47)	0.24 (0.43)
Training program	1 = <i>employer offers training program</i> , 0 = <i>not</i>	0.48* (0.50)	0.52 (0.50)
<i>Other Job and Organizational Characteristics</i>			
Job sex composition			
Mainly male job	1 = <i>at least 75% of immediate work group is male</i> , 0 = <i>not</i>	0.39** (0.49)	0.14 (0.35)
Mainly female job	1 = <i>at least 75% of immediate work group is female</i> , 0 = <i>not</i>	0.16** (0.37)	0.44 (0.50)
Mixed sex job	1 = <i>26%-74% of immediate work group is female</i> , 0 = <i>not</i>	0.41* (0.49)	0.35 (0.48)
Organizational size	Number of employees in hundreds	23.79*** (37.61)	18.42 (32.82)
Sector			
Nonprofit	1 = <i>nonprofit</i> , 0 = <i>not</i>	0.06*** (0.24)	0.16 (0.37)
Public	1 = <i>public</i> , 0 = <i>not</i>	0.13** (0.33)	0.16 (0.36)
Private for-profit	1 = <i>private</i> , 0 = <i>not</i>	0.81*** (0.39)	0.68 (0.13)

Family and Household Characteristics

Marital Status			
Married	1 = married, 0 = not	0.67*** (0.47)	0.58 (0.49)
Previously married	1 = divorced, widowed, or separated, 0 = not	0.03*** (0.16)	0.07 (0.26)
Cohabiting	1 = cohabiting, 0 = not	0.21 (0.41)	0.18 (0.39)
Never married	1 = never married, 0 = not	0.09*** (0.29)	0.16 (0.37)
Parent	1 = has 1 or more child(ren) in household for at least 6 months, 0 = does not	0.50 (0.50)	0.51 (0.50)
Daily hours spent on chores	Hours spent on home chores on workdays	2.09*** (2.02)	2.77 (2.34)
Daily hours spent on child care	Hours spent on child care ("0" if respondent has no dependent children)	1.06*** (1.83)	1.49 (2.55)
Weekly hours spent on elder care	Hours spent on care/assistance to someone 65 or older	0.90 (4.75)	1.15 (4.60)
Individual Controls			
Highest education			
Graduate/professional	1 = graduate or professional study, 0 = not	0.12 (0.32)	0.10 (0.30)
College	1 = college graduate, 0 = not	0.19 (0.40)	0.18 (0.38)
Some college	1 = some college, 0 = not	0.32*** (0.47)	0.39 (0.49)
High school	1 = high school graduate, 0 = not	0.29 (0.45)	0.29 (0.45)
Less than high school	1 = less than high school, 0 = not	0.08*** (0.27)	0.05 (0.22)
Job tenure	Years with current employer (for self-employed, years involved in current line of work)	9.52*** (9.90)	7.61 (8.28)
Work experience	Years of work experience since age 18 (62 missing values replaced with: age - years of education - 6)	21.81*** (12.12)	19.71 (10.92)
Self-appraisal of job-ability fit	Job allows use of skills and abilities: 1 = strongly disagree, 2 = disagree, 3 = agree, 4 = strongly agree	3.61 (0.73)	3.60 (0.75)
Number of cases		1,771	1,753

NOTE: O*NET = Occupational Information Network. Gender difference significant at: * $p < .05$, ** $p < .01$, *** $p < .001$. Descriptive statistics are unweighted.

NOTES

1. The surveys include the 1977 Quality of Employment Survey (U.S.), the 1997 and 2001 Skills Surveys of the Employed British Workforce (U.K.), and the 1992 and 1997 National Studies of the Changing Workforce (U.S.).

2. In related work analyzing the Quality of Employment Survey, Bielby and Bielby (1988) found that women had significantly higher scores than men on a composite variable combining required effort with exerted extra effort beyond what was required.

3. We estimated models with alternative measures of parental responsibilities (the number of dependents under 5 or under 16, and dummy variables indicating the presence of 0-10 dependents under 16). None of these alternative specifications had a statistically significant effect, and other coefficients were similar to those presented here.

4. We include industry categories in the U.S. data analyses (but not the U.K. analyses) because the NSCW has fewer detailed workplace measures than the British Skills Survey.

5. The O*NET, which replaces the Dictionary of Occupational Titles, is a database measuring characteristics of 900 occupations. We aggregate these measures upward to the 496 occupations included in the 1990 census occupational classification, following coding used by Reynolds (2006a, 2006b), and attach the aggregated values to respondents' 1990 census three-digit occupation codes using a crosswalk provided by the National Crosswalk Service Center.

6. Alternative specifications (total number of children under 18 at home, dummy variables indicating the presence of zero through seven children under 18) were not statistically significant, nor did their presence change other coefficients.

7. In supplementary models, the negative effect of caring for others was only significant for men, not women. See below for a discussion.

8. Supplemental models substituting the 1990 census occupation percent female for the NSCW job gender composition measure yielded similar results.

9. In analyses not shown, we estimated separate models for employees and self-employed workers. Among employees, the coefficient for respondent gender was significant, very similar to the corresponding coefficient for the full sample in both countries. Results for the self-employed differed across the two countries, with a nonsignificant gender coefficient in Britain and a *stronger* significant gender coefficient (.60) in the United States.

10. The dependent variable may include a certain amount of *random* error, but random error would not generate a systematic gender difference. Random measurement error in the dependent variable does not produce bias in regression estimates; it merely leads to larger standard errors, rendering statistical tests more conservative (Wooldridge 2003).

11. Although it is well known that women and men report similar levels of job satisfaction (Hodson 1989), there is also evidence that women are more likely than men to respond to work grievances with internalized negative affect rather than with externalized expressions of dissatisfaction (Hagan and Kay 2007).

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