Balancing Work and Family: The Role of High-Commitment Environments

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Recently, researchers have begun to recognize that the nature of jobs, the work-place environment, and more generally, the culture of the workplace can have a significant impact on the ability of workers to balance their work and family lives. This article examines the effect of high-performance work practices, job characteristics, and the work environment on workers' views about whether the company helps them balance work and family. Using data from a survey of workers across three manufacturing industries, we show that a high-commitment environment—characterized by high-performance work practices, intrinsically rewarding jobs, and understanding supervisors—positively influences employees' perceptions that the company is helping them achieve this balance. This article reinforces the view that helping workers balance work and family responsibilities is not just a matter of benefits and formal family-friendly policies. Rather, it also depends on the characteristics of jobs within the business enterprise.

American families are being pulled in many directions. The number of dual-earner families has increased, as has the combined hours parents are working, while the time-consuming demands of maintaining a family and caring for dependents are unchanged. With more people working for pay and family work hours rising, balancing work and family life is an increasingly critical issue. Partly in response to these concerns, employers have begun to adopt a range of family-oriented policies, and some have expanded the scope of their work and family programs to include assistance with elder care and a range of flexible work arrangements. More recently, researchers have begun to recognize that the nature

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of jobs, the workplace environment, and more generally, the culture of the workplace can have a significant impact on the ability of workers to balance their work and family lives. Several recent studies have found that a company's workplace culture and climate affect employees' perceptions that their company helps them balance the often competing demands of work and family.

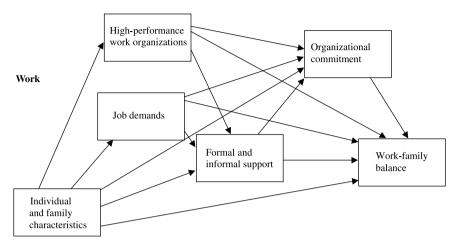
In this article we examine the effect of high-performance work practices. job characteristics, and the work environment on workers' views of whether the company helps them balance work and family obligations. There are many ways companies can help workers balance their work and family responsibilities. Traditional benefits such as health insurance, a pension plan, and paid vacation days can ease family-related worries. Formal company work and family policies such as flexible work arrangements, assistance with child or elder care, and expanded leave can make it easier for employees to spend time with their families or act on family concerns. Much of the very useful literature on work and family conflict focuses on the effects of these types of formal policies and benefits provided by companies. Indeed, most of the research on helping workers balance work and family concentrates on benefit packages and targeted family-friendly policies.

Using data from a survey of workers in three manufacturing industries, we show that a high-commitment environment positively influences employees' perceptions that the company is helping them achieve this balance. After a brief discussion of our theoretical approach and the relevant literature, we discuss our sample. We then present an empirical analysis of the effects of high-performance work system and high-commitment workplace variables on employees' perceptions that the company helps employees balance their work and family obligations.

Conceptual Framework and Literature Review

The ability of employees to balance their work and family lives depends on the characteristics of their jobs and workplaces, as well as on their family situations. Figure 1 describes our assumptions about how characteristics of jobs and workplaces combine with features of individuals and family situations to influence their work-family balance. We assume that individual and family characteristics sort and select people into particular kinds of organizations and jobs. Organizational and job characteristics, along with individual and family variables, affect the extent to which the workplace provides support to help people deal with their family lives. All these factors, in turn, affect one's organizational commitment, and all the variables

FIGURE 1
DETERMINANTS OF WORK-FAMILY BALANCE



Family

in the model are assumed to influence work-family balance. Our main focus in this article is on how work-family balance is affected by organizational and job characteristics, support mechanisms, and organizational commitment.

We assume that some types of jobs and workplaces make it more or less likely that workers will be able to fulfill both their work-related responsibilities and their family obligations. For example, workers who have considerable control over the scheduling of their work activities and whose workplaces provide them with opportunities for flextime and assistance with child care should be better able to balance their work-family lives than workers who do not work in jobs or workplaces that give them these advantages. Moreover, individuals who have more extensive and complicated family obligations—such as mothers or members of dual-career couples—are apt to have greater difficulty in balancing their work and family lives than are men, single persons, or those who are married to a full-time homemaker.

The literature on work-family interactions is extensive and has examined various aspects of the linkages among employee and family characteristics, work-family policies, worker behavior or attitudes, and work-family conflict that are described in this model. Much of this research has been conducted

¹ Our simple recursive model does not show feedback loops, although there are likely to be reciprocal relations between sets of variables. For example, a person's family situation (such as the number of children one has) may be affected by his or her perceived career opportunities.

by psychologists and focuses on conflict within families and pressures on them. A considerable number of studies have examined the correlates and consequences of organizational policies designed to reduce work-family conflict by being "family friendly" [this literature has been reviewed recently by Glass and Estes (1997)].² These studies have investigated whether particular groups such as single parents, women, or families with children or elderly dependents benefit from work-family policies or adjust their behavior as a result of these policies. They also have examined how work-family policies affect employees' behavior or attitudes, such as whether they lower absenteeism, reduce turnover, or increase job satisfaction and organizational commitment. By contrast to the relatively large literatures on these aspects of work-family interrelations, there are relatively few studies of the relationship between the nature of work organization—specifically the extent to which one is working in a high-performance work environment and one's ability to balance one's work and family life.

We argue that there is a spillover from work to family such that being able to participate in high-performance work systems will enable people to balance better their work and family lives. We suggest that this occurs for two reasons. First, participating in high-performance work systems gives people a greater sense of personal control and efficacy, and this has positive effects on their ability to manage the rest of their lives (Piotrkowski 1979; Greenhaus and Beutell 1985: Voydanoff 1988), Jones and Butler (1980), for example, found that job challenge and job variety (two components of intrinsic rewards that have been shown to be associated with working in high-performance work organizations (see Appelbaum et al. 2000) were negatively related to incompatibility between family and work roles among a sample of married sailors. This mechanism is represented in our study by the direct effect of working in a high-performance work organization on work-family balance, since we do not have available to us measures of control and efficacy to include in our equations.

Second, high-performance work systems are apt to be associated with more family-friendly practices. Our reasoning behind this assumption builds on the research of Paul Osterman (1995), who has argued that highperformance work organizations use family-friendly practices as part of an overall human resources strategy that is designed to elicit high levels

² There are three main categories of family-friendly workplace practices (Glass and Estes 1997): (1) policies that respond to employees' needs for reduced hours, such as part-time work arrangements; (2) practices and policies that give workers greater control or flexibility over the scheduling and location of their work, such as compressed workweeks, telecommuting, and job sharing; and (3) practices that provide workers with workplace social support such as help with dependents (child or elder care), sick child support, and employee assistance for education and health.

of commitment from workers. High-performance work organizations are structured so as to provide workers with the opportunities to participate in making substantive decisions in the workplace and with the tools (skills, training) and incentives to take advantage of these opportunities (see also Appelbaum et al. 2000). Whether workers will participate fully by exercising discretionary effort in the organization's behalf depends to a large extent on their degree of commitment to the organization: Highly committed workers are willing to work hard in the organization: Behalf and are most likely to take advantage of opportunities to participate in decisions. One important way in which high-performance work organizations seek to elicit commitment from their workers is by instituting family-friendly policies.

Osterman found considerable support for this argument in his analysis of data from a nationally representative sample of U.S. private-sector establishments with 50 or more employees: Organizations characterized as high-commitment work systems³ were more likely than traditional work systems to have programs promoting the integration of work-family lives. By contrast, Osterman found only weak support for his two alternative explanations of why organizations introduce family-friendly policies, that is, as a response to "practical" problems associated with the recruitment and retention of (especially) female workers and as an extension of institutional arrangements represented by firm internal labor markets.

While Osterman assumes that high-commitment work organizations adopt family-friendly policies so as to enhance commitment, his organizational-level data do not permit him to assess workers' commitment directly. Moreover, since he did not have data on individuals, he was unable to examine directly the assumption that family-friendly policies help workers to balance their work and family lives. Our individual-level data enable us to overcome this limitation by measuring commitment as well as work-family balance directly and thus assessing the extent to which the impact of working in a high-performance work system on work-family balance is mediated by support mechanisms and organizational commitment.

Arlie Hochschild (1997) suggests a contrasting view on the relationship between participatory work arrangements and work-family balance. In her widely cited and influential book, *The Time Bind*, she also argues that changes in the direction of making workplaces more participatory and high performance have made workers more committed to their organizations; workplaces characterized by supportive coworkers working in teams and

³ Osterman measured high-commitment work systems by the extent to which the establishment seeks a committed labor force relative to other goals, the extent of employee discretion in carrying out work assignments, and the existence and penetration of problem-solving groups and total quality management.

workers having the ability to participate in a meaningful way in decision making are very different work environments from the "Taylorized" systems of work organization in which workers have little input into how work is done. However, unlike Osterman, Hochschild goes on to argue that a result of this greater commitment is that workers in high-performance workplaces will choose to spend more time at the workplace than in the family. She maintains that the supportive and participatory workplace has become a haven from the stresses and strains of family life such that "work becomes home and home becomes work" (which is the subtitle of her book). As a consequence, she hypothesizes that working in high-commitment work organizations produces a time deficit in family life, making it more difficult for people to balance their work and family lives. This would be reflected in a negative relationship between organizational commitment and work-family balance.

Hochschild's argument is controversial and has been challenged by others on empirical grounds. For example, Maume and Bellas (2001) argue that Hochschild's support for her argument is due largely to her sample consisting of members of a Fortune 500 firm, a group that is more likely to see the rewards of work outweighing those of family. Maume and Bellas argue that there has always been a minority of workers who enjoy work at the expense of their families and that this does not represent a change or reversal in the relative rewards of work and family life. Many men have tended generally to prefer the workplace to the family, and it is thus not surprising that some working women regard career pursuits as rewarding and fulfilling.

Unfortunately, there is a paucity of studies that would help to adjudicate between these two competing hypotheses about the relationship between working in high-performance work organizations and being able to achieve a balance between work and family. No studies of which we are aware have measured both whether one works in a high-performance work system and the extent to which one is able to balance one's work and family life. Nevertheless, some studies provide suggestive empirical evidence on pieces of the argument that high-performance work organizations are more likely to use family-friendly practices and are otherwise more apt to have highly committed workers who are better able to balance their work and family lives. We briefly review some of these studies in the remainder of this section.

Previous studies generally tend to support the view that family-friendly policies at the workplace are associated with positive work attitudes and behaviors. In our model, these studies can be categorized as examining the relationship between support mechanisms and organizational commitment. For example, Grover and Crooker (1995), using the 1991 General Social Survey, examined how family-responsive policies concerning time and dependent care influence the relationship between employers and employees.

They found that various family-responsive benefits had a positive effect on affective commitment and turnover intention. The availability of maternity leave with a guaranteed job on return and the availability of child care information significantly reduced the intent of employees to leave the organization. Furthermore, the availability of flexible scheduling increased affective commitment, and child care information increased the organizational commitment of employees with small children but not those with older children. McCampbell's (1996) survey of primarily federal government workers in Washington, DC, asked about their attitudes toward alternative work schedules and found that the majority of employees perceived alternative work schedules as a benefit to either the employer or the employee. Sixty-five percent of those surveyed indicated that alternative work schedules increased morale or productivity. Seventy-one percent reported that supervisors support the practice.

Lambert (1995) examined the use and appreciation employees have for a range of family-friendly policies at a family-owned engine-gasket manufacturing firm in the Midwest. The firm offered on-site child care, a summer day camp, in-home sick child care, tutoring for school-aged children, and scholarships for post-high school education. Programs for workers themselves included reimbursement for tuition, wellness massages, and an on-site fitness center. While 23 percent of the total sample used one or more of the supports for a child at some time during their tenure at the company, 66 percent of respondents with more than 10 years of seniority used at least one support for a child. Women did not use more support for dependents than men; however, more women than men used the summer day camp, whereas significantly more men than women used the sick child care. Regression analysis revealed a positive association between benefit use and appreciation. Blue-collar workers appreciated benefits more than supervisors and white-collar workers, especially the tuition reimbursement. In a more recent article, Lambert (2000) found that workers' assessments of the usefulness of "work-life benefit packages" in a manufacturing firm were positively related to organizational citizenship behavior (such as helping others at work and submitting suggestions for product and process improvement).

The studies discussed in the preceding paragraph may be characterized as examining the relationship between support mechanisms and work-family balance. Similarly, in a sample of workers at a public utility firm, Kossek and Nichol (1992) found that employees' family situations can affect their attitudes toward managing work and child care responsibilities, as well as their work behavior. Being female and having problems with child care was significantly related to negative attitudes toward managing work and family responsibilities. In addition, having a positive attitude toward managing work and family responsibilities was associated with less absenteeism.

While these studies have examined the effects of formal family-friendly practices, researchers have recognized only recently that the nature and structure of work itself may be the key work-family variable. As we argued earlier, the characteristics of jobs and work environment can affect family life through spillover effects. (These spillover effects are represented in our model by direct effects of organizational and job characteristics on work-family balance.) Experiences at work that affect the quality of a worker's life on the job may influence the psychological state or well-being of workers when they are home and may affect their ability to address the demands of family life. Conversely, structuring the work itself so that it is challenging, makes use of workers' skills, and gives workers the opportunity to make decisions that affect work routines may have a positive effect on employees' assessments of the company's family friendliness. Challenging jobs that enable employees to use their skills and other positive experiences on the job can mitigate the negative effects of a stressful family situation (Barnett, Marshall, and Sayer 1992).

The most recent work in this area comes from Galinsky, Bond, and Friedman (1996), who use a nationally representative survey to examine how employers are addressing the needs of employed parents. They find that the effects of factors outside the traditional, formal work-family policies are significant:

Parents who felt they had greater autonomy in their jobs, more control over their work schedules, less hectic and demanding jobs, and/or more job security reported appreciably less conflict, less stress, and better coping than other parents. In addition, parents who had more supportive supervisors, had more supportive workplace cultures, and believed their opportunities to advance were not impeded by their race or gender also reported somewhat less conflict, less stress, and better coping [Galinsky, Bond, and Friedman 1996:133].

The Galinsky study provides evidence on the direct effects of job characteristics and support mechanisms on work-family balance.

As we have noted, our article also examines the effects of work system and work environment characteristics on employees' views of the extent to which the company for which they work helps employees balance their work and family demands. Our focus is on whether high-performance work practices and policies that demonstrate a high-commitment environment are associated with a family-friendly workplace as reported by employees.

Description of the Sample

During 1995–1997, we visited manufacturing facilities across the country in the steel, apparel, and medical electronics and imaging industries. The

176 / Peter Berg, Arne L. Kalleberg, and Eileen Appelbaum

TABLE 1
CHARACTERISTICS OF EMPLOYEE SAMPLE, BY INDUSTRY

| | All | Steel | Apparel | Medical |
|---------------------------------------|------|-------|---------|---------|
| Plants | | | | |
| Number of plants | 40 | 14 | 16 | 10 |
| Average establishment size | 2040 | 3754 | 253 | 808 |
| Employee sample | | | | |
| Number of employees | 4374 | 2143 | 1227 | 1004 |
| Percent of employees | 100 | 49 | 28 | 23 |
| Nonsupervisory employees | | | | |
| Number | 4109 | 1903 | 1202 | 1004 |
| % Female | 37 | 6 | 93 | 27 |
| Race/ethnicity | | | | |
| % White | 78 | 76 | 78 | 83 |
| % Black | 11 | 16 | 11 | 3 |
| % Hispanic | 5 | 5 | 6 | 2 |
| % Other | 6 | 3 | 5 | 12 |
| Age (years) | 44 | 46 | 42 | 41 |
| Education | | | | |
| % Less than HS | 11 | 7 | 25 | 2 |
| % HS grad | 46 | 54 | 68 | 15 |
| % Some college | 29 | 34 | 15 | 37 |
| % College grad | 14 | 5 | 2 | 46 |
| Seniority (years) | 15 | 20 | 10 | 10 |
| Family Structure | | | | |
| Married, single earner, with children | 13 | 17 | 6 | 14 |
| Married, single earner, no children | 10 | 13 | 8 | 7 |
| Married, dual earner, with children | 34 | 31 | 38 | 33 |
| Married, dual earner, no children | 23 | 24 | 23 | 23 |
| Not married, with children | 6 | 4 | 11 | 5 |
| Not married, no children | 14 | 11 | 14 | 18 |

purpose of our visits was to gather information about the effect of high-performance work practices and other human resources practices on plant performance and worker outcomes. We conducted interviews with managers and union officials about human resources practices, the organization of work, and performance outcomes. In addition, we obtained a list of employees at each site and surveyed a stratified random sample of workers. These employees were asked about their experiences with work organization and human resources practices at their plants. Approximately 100 workers at each of 40 plants were surveyed—nearly 4400 employees in all. Of these, approximately 4100 are nonsupervisory blue- or white-collar employees.

Table 1 presents an overview of the employees who participated in this study. The analysis in this article is based on the experiences of nonsupervisory employees. As Table 1 shows, the sample is quite diverse in terms of the gender, education, and race/ethnicity of workers. Table 1 also shows the

distribution of family structure across employees in this study. Most employees are married (80 percent) and have a child still at home (53 percent). In addition, a high proportion is in dual-earner families (57 percent).

Sampling Frame

The underlying design of this research called for knowledge about the markets, technologies, and human resources practices of the businesses in addition to information on individuals. Thus we chose to anchor our analysis in detailed case studies of three diverse industries. The three industries that we chose vary in terms of education levels, with apparel workers having the least education and medical electronics and imaging workers having the highest (see Table 1). The industries also vary in terms of gender composition and family structure. The nature of production and the use of labor also vary greatly in the steel, apparel, and medical electronics and imaging industries. Apparel production is labor-intensive, and work has traditionally been broken into many small tasks, each of which is performed hundreds of times by a worker. In contrast, the steel production process is dictated by the production technology and characterized by high-volume throughout. Medical electronics and imaging production has never been highly "Taylorized" and reflects a batch production process using relatively highly skilled workers compared with the other two industries. Moreover, the medical electronics and imaging industry is much more closely related to the process of product innovation than the other two industries.

Our sampling frame for selecting establishments in the steel industry focused on facilities with rolling mills and steel-making capacity that produce carbon-steel sheet or bar products. We did not include in our sample superprocessors or stand-alone rolling facilities that specialize in cold rolling or galvanizing, although these departments are included when they are part of a facility that includes a rolling mill. Using standard industry guidebooks, and after eliminating new startups and worker-owned mills, we identified a total of 18 bar mills and 19 sheet mills that were eligible for inclusion in the study. Of these, we conducted interviews with managers at 9 bar mills and 8 sheet mills (12 separate companies). The sample includes 11 minimills and 6 integrated producers. All the integrateds and 5 of the minimills are union plants. We conducted worker surveys at 14 steel mills.

In apparel, our strategy for selecting plants to participate in the study was driven by our interest in comparing the performance of module and bundle production systems. This required that we be able to make direct comparisons between module and bundle production of the same product. With the help of the Textile/Clothing Technology Corporation (TC), an organization that is sponsored by firms and unions in the apparel industry and provides consulting services and advice, we were able to identify plants producing the same or very similar products under the two different regimes. In all, 17 apparel plants participated in the study. The sample of 17 plants includes manufacturers of a range of products in the apparel basics category plus some that produce more varied products as well. These products represent a majority of the types of garment production that remain in the United States. The highly varied women's wear segment, which has the highest import penetration ratio, is least represented in our sample. We conducted worker surveys in 16 of the plants.

Medical imaging industries consist of companies that manufacture electrodiagnostic or imaging equipment such as electrocardiographs or ultrasound equipment. Using standard industry guidebooks, we identified 328 firms listed as doing business in the medical electronic instruments and diagnostic imaging segment of the industry. Through telephone contact, we identified 144 companies that actually manufacture an imaging device or electrocardiograph in the United States. Forty-four of these companies employ 100 or more employees (median size of firms with 100 or more employees was 263). Companies in this industry segment tend to be mainly medium sized rather than big, with some exceptions (e.g., Hewlett-Packard and GE Medical Systems).

We contacted all 44 companies in the industry with more than 100 employees that manufacture either electrocardiographs or imaging equipment in the United States (we assumed that smaller companies mainly were engineering firms that outsource manufacturing). Of these, 10 plants (9 companies) participated in the study. We conducted worker surveys at all 10 plants.

Above-Average Employers

While the three industries in this study are broadly representative of the technologies and workforces found in a wide range of manufacturing industries and the workplace practices in the plants that participated vary widely, employers in this study may not be typical. The plants in this study are good employers who offer their employees decent benefits and often employment security. In our interviews with managers, we found that 85 percent of the plants offer pension benefits to nonsupervisory employees and 100 percent of the plants offer health insurance, paid vacation, and life insurance. Interestingly, none of the plants offer financial assistance for child care, although 25 percent of the plants offer family-leave benefits beyond what is required

by the Family Medical Leave Act. Three-quarters of the plants offer some form of explicit or implicit employment security.

In addition, the worker survey reveals that 69 percent of workers report receiving formal training, 73 percent are satisfied or very satisfied with their health benefits, and 62 percent report being satisfied or very satisfied with their pension benefits. Moreover, there are very few part-time workers in our sample. Ninety-four percent of workers are working 40 hours a week or more.

However, simply providing good benefits and full-time employment does not mean that employers implement high-performance work practices or that they pursue a high-commitment work environment. Using our worker survey data, we are able to assess the extent to which the plants in our sample engage in these work-related strategies as well as the effect these practices have on workers' views that the company helps them balance work and family.

Variables and Model Specification

The dependent variable in the analyses conducted in this article is, "All and all, to what extent would you say your company helps workers to achieve a balance between their work and family responsibilities." We refer to this variable as measuring work-family balance. Work-family balance is measured on a scale that ranges from 1 = not at all to 4 = to a great extent. This dependent variable is a perceptual measure of how well the company is addressing work and family needs of its employees. It captures the employees' assessment of how concerned the employer is about work and family issues. A high score on this question means that employees believe the company is helping them, either formally or informally, to balance their work and family responsibilities. A low score means just the opposite. Thus our analysis examines the work and family practices of companies through the eyes of their employees.

The definitions of the other variables used in this article are given in Appendix Table A. The means and standard deviations for the variables used in the analysis are presented in Appendix Table B. Our analyses focus on five different types of variables. The first set of variables measures family structure and individual characteristics. These variables are controls for whether perceptions of work-family balance differ across different family and education configurations. We also control for industry, gender, age, race and ethnicity, and job tenure, as well as for the importance of work-family flexibility to the respondent. The next set of variables measure various work practices that are part of a high-performance work system. The core component of a high-performance work system is the extent to which the organization of work provides nonsupervisory employees with the opportunity to participate substantively in decisions. High-performance work systems replace many of the hierarchical interactions associated with traditional forms of work organization with structures that require workers to have autonomy over their job tasks, to participate in self-directed teams, to be part of problem-solving and other offline teams, and to regularly communicate with employees outside their work groups (see Appelbaum et al. 2000). In addition, we examine other components of a high-performance work system such as skills (training) and incentives (pay-for-performance, promotion opportunities).

Next, we consider the effect of various job demands. These variables reflect factors that may influence one's perception of work-family balance and include hours worked per week, the extent one must work involuntary overtime, a scale of intrinsic rewards derived from one's job, job stressors, and the extent to which one experiences conflict with coworkers. We also include in our models two variables measuring informal and formal family-friendly supports at the workplace. These variables are the extent to which one has an understanding supervisor and whether the employer provides information about child care referral services to employees. Lastly, we use a standard organizational commitment scale to represent a high-commitment environment. We use this simple measure for ease of interpretation and because organizational commitment is a key variable used by Osterman (1995).

Given the nature of our sample and the ordered response categories of our dependent variable, we conduct our analyses using an ordered logistical regression with robust standard errors that correct for the fact that groups of workers in our sample are employed in the same plant. The hierarchical nature of our data set means that individual observations are clustered within plants where workers observe similar plant practices; therefore, we correct for the fact that our observations are not entirely independent. In addition, the robust standard errors and plant-clustering corrections adjust for the fact that workers in the same plant may have common unobserved characteristics not explicitly represented in our model.

Results

In Table 2 we present the results of several ordered logistical regression models of the total sample.⁴ Controlling for gender, which is not significant

⁴ In analysis not reported here we included establishment size (number of employees) as reported by managers in the analysis. Establishment size never had a significant effect on workers' perceptions that the company helps them balance work and family demands.

 $\begin{tabular}{ll} TABLE~2\\ Ordered~Logit~Analysis~of~Total~Sample~on~Ability~to~Balance~Work~and\\ Family~Responsibilities\\ \end{tabular}$

| | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 |
|---------------------------------------|-----------|-----------|-----------|-----------|-----------|
| Family status | | | | | |
| Married, single earner, with children | -0.205 | -0.332** | -0.429*** | -0.339** | -0.308* |
| , 6 , | (.137) | (.148) | (.145) | (.167) | (.168) |
| Married, single earner, no children | -0.039 | -0.054 | -0.115 | 0.003 | 0.079 |
| | (.109) | (.125) | (.129) | (.149) | (.156) |
| Married, dual earner, with children | -0.285*** | -0.366*** | -0.401*** | -0.239* | -0.181 |
| | (.106) | (.113) | (.114) | (.131) | (.135) |
| Married, dual earner, no children | -0.176** | -0.260*** | -0.294*** | -0.221** | -0.163 |
| | (0.080) | (.084) | (.088) | (.095) | (.102) |
| Not married, with children | -0.451*** | -0.471*** | -0.513*** | -0.342** | -0.280 |
| | (.162) | (.165) | (.162) | (.174) | (.179) |
| High-performance work practices | | | | | |
| Opportunity to participate scale | | 0.011*** | 0.008*** | 0.005* | 0.004 |
| | | (.002) | (.003) | (.003) | (.003) |
| Formal training | | 0.115 | 0.049 | -0.020 | -0.018 |
| | | (.072) | (.074) | (.074) | (.076) |
| Informal training | | 0.152*** | 0.130*** | 0.110*** | 0.098** |
| | | (.036) | (.039) | (.041) | (.042) |
| Pay-for-performance | | 0.396*** | 0.451*** | 0.485*** | 0.405*** |
| | | (.136) | (.138) | (.144) | (.143) |
| Promotion opportunities | | 0.340*** | 0.256*** | 0.199*** | 0.157*** |
| | | (.041) | (.043) | (.047) | (.045) |
| Job demands | | | | | |
| Hours per week | | | -0.017*** | -0.018*** | -0.016*** |
| | | | (.005) | (.006) | (.005) |
| Involuntary overtime | | | -0.179*** | -0.134*** | -0.133*** |
| | | | (.049) | (.049) | (.048) |
| Intrinsic rewards scale | | | 0.018*** | 0.015*** | 0.011*** |
| | | | (.002) | (.002) | (.003) |
| Job stressors | | | -0.033 | -0.025 | -0.021 |
| | | | (.034) | (.038) | (.038) |
| Conflict with coworkers | | | -0.240*** | -0.150** | -0.117* |
| | | | (.062) | (.065) | (.065) |
| Formal and informal supports | | | | | |
| Understanding supervisor | | | | 0.607*** | 0.566*** |
| | | | | (.071) | (.071) |
| Childcare referral services | | | | 1.125*** | 1.086*** |
| | | | | (.103) | (.107) |
| High-commitment environment | | | | | |
| Organizational commitment | | | | | 0.157*** |
| | | | | | (.022) |
| Chi-square | 233.12 | 835.99 | 1357.76 | 2227.33 | 4394.10 |
| Prob > chi-square | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Log likelihood | -4938.02 | -4511.24 | -4350.16 | -3741.72 | -3626.84 |
| Pseudo R^2 | 0.04 | 0.07 | 0.10 | 0.14 | 0.15 |
| N | 3962.00 | 3748.00 | 3699.00 | 3350.00 | 3280.00 |
| 14 | 3702.00 | 3770.00 | 5077.00 | 5550.00 | 5200.00 |

^{***}indicates significance at 0.01 level; **indicates significance at 0.05 level; *indicates significance at 0.10 level. Robust standard errors are in parentheses. Controlling for gender, age, black, Hispanic, other race, less than high school, some college, college degree, tenure in years, and how important is work-family flexibility to you.

in any of the models, the effect of family status variables is consistent across the first four models. Workers with children and/or dual-earner couples believe the company is not doing enough to help them balance their work and family responsibilities. However, when we account for one's commitment to the organization in model 5, a negative effect remains only for married, single-earner families with children.

In model 2 of Table 2 we examine the effect of high-performance work practices on work-family balance. The opportunity to participate scale and informal training, pay for performance, and promotion opportunities have significant and positive effects on workers' perceptions that their company helps workers balance work and family responsibilities. These results hold as we consider various job demands and formal and informal supports (models 3 and 4). Only after we include for organizational commitment (model 5) does the significant effect of the opportunity to participate disappear. The decline in the log likelihood and the change in significance of the opportunity to participate scale indicate that organizational commitment mediates the effect of this key high-performance work practice on workfamily balance. Whereas the opportunity to participate scale no longer retains significance in our full model, other high-performance work practices that provide informal training, reward employees for good performance, and lead to promotion opportunities have a significant effect on employees' perception of company efforts to help workers balance work and family.

The nonsignificant effect of the opportunity to participate scale in model 5 may be due to complex relations between its components and work-family balance. In order to investigate this possibility, we reestimated the model separately for men and for women, substituting the components of the opportunity to participate scale for the scale itself. We suspect that the components of the scale might have different effects that might differ by gender. In Table 3 we present the results of this analysis. We show the coefficients for the components of the opportunity to participate scale for men and women, controlling for all the other variables in model 5. The results show that autonomy is significant for women in model 5, whereas self-directed work team membership and communication are significant for men. However, t tests of these coefficients indicate that we cannot rule out that the coefficients are essentially equal across gender. Thus, when the opportunity to participate scale becomes insignificant in model 5 of Table 2, the different component effects across gender are essentially averaging out to zero, producing no effect. We suspect that a larger sample of more diverse occupations might show that various components of the opportunity to participate scale have significant effects even after controlling for *organizational commitment*. This is something that should be examined in future research.

TABLE 3 ORDERED LOGIT ANALYSIS ON ABILITY TO BALANCE WORK AND FAMILY RESPONSIBILITIES FOR MEN AND WOMEN USING THE COMPONENTS OF THE OPPORTUNITY TO PARTICIPATE SCALE

| Opportunity to Participate Scale Components | Mod | del 5 |
|---|----------|----------|
| | Women | Men |
| Autonomy | 0.004** | 0.003 |
| | (.002) | (.002) |
| Self-directed work team | 0.000 | 0.002** |
| | (.002) | (.001) |
| Off-line team membership | -0.002 | 0.001 |
| | (.001) | (.001) |
| Communication | -0.001 | 0.004*** |
| | (.002) | (.002) |
| Chi-square | 8446.88 | 25342.72 |
| Prob > chi-square | 0.00 | 0.00 |
| Log likelihood | -1458.62 | -2126.68 |
| Pseudo R^2 | 0.12 | 0.18 |
| N | 1272 | 2008 |

^{***}indicates significance at 0.01 level; **indicates significance at 0.05 level; *indicates significance at 0.10 level. Robust standard errors are in parentheses. Controlling for age, black, Hispanic, other race, less than high school, some college, college degree, tenure in years, how important is work-family flexibility to you, family structure variables, formal training, informal training, pay for performance, promotion opportunities, hours, involuntary overtime, intrinsic rewards scale, job stressors, conflict with co-workers, understanding supervisor, child care referral services, and organizational commitment.

In models 3 and 4 of Table 2 we consider the effects of job demands and formal and informal supports. As expected, employees who work more hours, have to work involuntary overtime, and experience conflict with coworkers feel that the company is not helping them balance work and family responsibilities. On the other hand, workers who experience high intrinsic rewards from their jobs believe that the company is helping them balance their work and family lives. Working with an understanding supervisor who allows one to come in early or leave late to take care of family responsibilities significantly increases the perception that the company is helping balance work and family responsibilities. This is also true for companies that provide child care referral services. This is consistent with other studies that show that these supports help employees balance their work and family lives (Lambert 1995; Galinsky, Bond, and Friedman 1996).

In model 5 we examine the effect of organizational commitment on workfamily balance. We find that a worker's degree of organizational commitment has a strong, positive effect on work-family balance. As Osterman found a strong link between work-family programs and the use of highcommitment work systems, we find that employees working in environments characterized by high-performance work practices are more likely to be

committed to their organizations and are more likely to perceive the company as helping them balance work and family responsibilities.

The fact that gender was not significant in any of the models in Table 2 suggests that, for this sample, perceptions of work-family balance are not affected by the whether the worker is a man or a woman. In an analysis not reported here, we explored whether work and family characteristics affect work-family balance differently for men and for women in this sample by reestimating model 5 for men and women separately. We then tested to see whether the coefficients differed for men and for women. Except for involuntary overtime, which reduces the ability to balance work and family obligations for men but not for women, there were no significant differences. Given that men work on average 46 hours per week, whereas women in our sample work on average 41 hours per week, this negative result for men is not surprising. Men are working more hours and report having to work more involuntary overtime than women.

Conclusion

This research has examined whether the nature of jobs and the workplace environment have a significant effect on the ability of workers to balance work and family obligations. Our analysis (see Table 2) provides support for the view that, indeed, they do. We find that high-performance work practices—the opportunity to participate in decisions, informal training, pay for performance, and good promotion opportunities—all have a positive effect on work-family balance. Job demands such as long weekly hours, involuntary overtime, and conflict with coworkers all reduce workers' ability to balance work and family responsibilities. In contrast, a job that is intrinsically rewarding and that is challenging and requires workers to be creative and to use their skills increases the ability of workers to balance these demands.

Model 4 (see Table 2) is consistent with Osterman's (1995) finding that there is a positive relationship between practices that promote the integration of work and family life and more participatory or high-commitment work systems. We show in model 5 (see Table 2) that more participatory work systems have made workers more committed to their organizations and that organizational commitment mediates the effect of more participatory work systems on work-family balance. In model 4 (see Table 2) we also confirm that the positive effect of more participatory work systems on work-family balance is mediated by informal and formal family-friendly support mechanisms such as an understanding supervisor or child care referral services.

Our results provide evidence that greater commitment to the organization increases rather than diminishes workers' ability to balance their work and

family responsibilities. Thus our results are not consistent with Hochschild's argument. Whereas Hochschild's view of high-performance workplaces may hold for professionals and managers, it does not appear that it can be generalized to nonsupervisory workers.

In addition, our results underscore the importance of job characteristics and workplace structures for workers' abilities to balance their work and family lives. Efforts by managers to enhance organizational performance and commitment are thus likely to have the additional benefit of helping workers better cope with the often competing demands of work and family.

REFERENCES

- Appelbaum, E., T. Bailey, P. Berg, and A. L. Kalleberg. 2000. *Manufacturing Advantage: Why High Performance Work Systems Pay Off.* Ithaca, NY: Cornell University Press.
- Barnett, R. C., N. L. Marshall, and A. Sayer. 1992. "Positive-Spillover Effects from Job to Home: A Closer Look." *Women and Health* 19(2–3):13–41.
- —, J. T. Bond, and D. E. Friedman. 1996. "The Role of Employers in Addressing the Needs of Employed Parents." *Journal of Social Issues* 52(3):111–36.
- Glass, Jennifer L., and Sarah Beth Estes. 1997. "The Family Responsive Workplace." *Annual Review of Sociology* 23:289–313.
- Greenhaus, Jeffrey H., and Nicholas J. Beutell. 1985. "Sources of Conflict Between Work and Family Roles." *Academy of Management Journal* 10:76–88.
- Grover, S. L., and K. J. Crooker. 1995. "Who Appreciates Family-Responsive Human Resource Policies: The Impact of Family-Friendly Policies on the Organizational Attachment of Parents and Non-Parents." *Personnel Psychology* 48:271–88.
- Hochschild, Arlie R. 1997. *The Time Bind: When Work Becomes Home and Home Becomes Work*. New York: Metropolitan Books.
- Jones, Allan P., and Mark C. Butler. 1980. "A Role Transition Approach to the Stress of Organizationally Induced Family Role Disruption." Journal of Marriage and the Family 42:367– 76.
- Kossek, E. E., and V. Nichol. 1992. "The Effects of On-Site Child Care on Employee Attitudes and Performance." *Personnel Psychology* 45:485–509.
- Lambert, S. J. 1995. "An Investigation of Workers' Use and Appreciation of Supporting Workplace Policies." Academy of Management Proceedings, pp. 136–40.
- ———. 2000. "Added Benefits: The Link Between Work-Life Benefits and Organizational Citizenship Behavior." *Academy of Management Journal* 43:801–15.
- Mattis, M. C. 1990. "New Forms of Flexible Work Arrangements for Managers and Professionals: Myths and Realities." *HR Human Resource Planning* 13(2):133–46.
- Maume, David J., Jr., and Marcia L. Bellas. 2001. "The 'Overworked American' or the 'Time Bind': Assessing Competing Explanations for Time Spent in Paid Labor." *American Behavioral Scientist* 44(7):1137–56.
- McCampbell, A. S. 1996. "Benefits Achieved Through Alternative Work Schedules." *HR Human Resource Planning* 19(31):30–7.
- Osterman, Paul. 1995. "Work-Family Programs and the Employment Relationship." *Administrative Science Quarterly* 40:681–700.
- Piotrkowski, Chaywa S. 1979. Work and the Family System. New York: The Free Press.
- Voydanoff, Patricia. 1988. "Work Role Characteristics, Family Structure Demands, and Work-Family Conflict." *Journal of Marriage and the Family* 50(August):749–61.

APPENDIX

APPENDIX TABLE A

VARIABLE LIST

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Dependent variable:
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Work-family balance To what extent would you say your company helps workers to achieve a balance between their work and family responsibilities? (1 = not at all; 2 = to a small extent; 3 = to some extent; 4 = to a great extent)

Independent variables:

Gender What is your gender? (1 = male; 0 = female)

Race

Black (1 = yes; 0 = no)

White (1 = yes; 0 = no)

Hispanic (1 = yes; 0 = no)

Other race (1 = yes; 0 = no)

Age What year were you born?

Education

Less than a high school degree (1 = yes; 0 = no)

High school degree (1 = yes; 0 = no)

Some college education or community college (1 = yes; 0 = no)

College degree and/or postgraduate education (1 = yes; 0 = no)

Tenure How long have you had your present position at this company (in years)?

Importance of work-family flexibility to respondent

How important is it to you personally to have enough flexibility at work to deal with family or personal matters?

Would you say not at all important, not too important, somewhat important, or very important?

Family status

Married, single earner, with children (1 = yes; 0 = no)

Married, single earner, no children (1 = yes; 0 = no)

Married, dual earner, with children (1 = yes; 0 = no)

Married, dual earner, no children (1 = yes; 0 = no)

Not married, with children (1 = yes; 0 = no)

Not married, no children (1 = yes; 0 = no)

Formal training In the past year, did you receive classroom training or one-on-one training from a supervisor or trainer? (1 = yes; 0 = no)

Informal training/learning To what extent have other employees taught you job skills, shortcuts, problem solving, or other ways to improve how you work? (1 = not at all to 4 = to a great extent)

Pay for performance Is some of your pay based on

Profit of the company or profit sharing?

Meeting work group or department quality goals?

Meeting work group or department production goals?

(If yes on at least one, pay for performance = 1.)

Promotion opportunities This is an additive scale of the response to these two questions divided by 2:

I have the opportunity to move into a higher-paying job at this company.

I will eventually have the opportunity to move into a supervisory position at this company.

(1 = false; 2 = mostly false; 3 = mostly true; 4 = true)

Job stress This is a an additive scale of the response to these two questions divided by 2:

On a typical day, how often do you have too many different demands on your time?

On a typical day, how often are you asked to do more work than you can handle?

(1 = never; 2 = rarely; 3 = sometimes; 4 = usually; 5 = always)

APPENDIX TABLE A CONTINUED

Conflict with coworkers This is a an additive scale of the response to these two questions divided by 2: In general, how would you describe relations in your workplace between coworkers at this plant?

(1 = very bad; 2 = bad; 3 = neither good nor bad; 4 = good; 5 = very good)

On a typical day, how often are you asked to do you experience conflict with other workers?

(1 = never; 2 = rarely; 3 = sometimes; 4 = usually; 5 = always)

Hours How many hours do you work in a typical week at this job?

Involuntary overtime To what extent are you required to work overtime when you do not want to? (1 = not at all; 2 = to a small extent; 3 = to some extent; 4 = to a great extent)

Understanding supervisor How understanding is your supervisor if you occasionally need to be late or leave early to take care of family or personal matters? (1 = not at all understanding; 2 = not too understanding; 3 = somewhat understanding; 4 = very understanding)

Child care referral services Does your company provide child care location and referral services to workers who need it? (1 = yes; 0 = no)

Definitions of other scaled variables:

Opportunity to participate scale This scale is based on the following four components:

Autonomy is a scale based on answers to two questions that probe the worker's autonomy on the job. Answers are coded from 1 (least autonomous) to 4 (most autonomous). We then compute the standardized (Z score) for each question. The value of the variable is the sum of the two Z scores divided by 2.

Self-directed work team is a dummy variable that equals 1 if the respondent answers "Yes" to a question asking whether he or she was a member of a self-directed team of people who work together and who jointly make decisions about task assignments (the questions differed slightly by industry).

Offline team membership is a dummy variable that equals 1 if the respondents stated that they were members of a team, committee, or task force that deals with one of the following: product development, design, quality, or cost; purchases or modification of equipment; working conditions; training; or other work-related problems or issues.

Communication is a scale based on responses to three questions that measure the extent to which the worker communicates with individuals outside his or her immediate work group or team. The answers are coded from 1 (least communication) to 5 (most communication). We then compute the standardized (Z score) for each question. The value of the variable is the sum of the three Z scores divided by 3.

The opportunity to participate scale is then formed by calculating the Z scores for team and offline, summing these two Z scores plus the sum of the autonomy and communication variables (which are already Z scores) and dividing by 4.

Organizational commitment scale The measure of organizational commitment is an additive scale of six standard commitment questions based on the following response categories (1 = strongly disagree; 2 = disagree; 3 = agree; 4 = strongly agree):

I am willing to work harder than I have to in order to help this company succeed.

I feel very little loyalty to this company.

I would take almost any job to keep working for this company.

I find that my values and this company's values are very similar.

I am proud to be working for this company.

I would turn down another job for more pay in order to stay with this company.

Intrinsic rewards scale The intrinsic rewards scale is based on the following three questions:

My job makes good use of my knowledge and skills.

My job requires me to be creative.

My job is challenging.

Each question has the following response categories: 1 = strongly disagree; 2 = disagree; 3 = agree; 4 = strongly agree. The final scale was transformed on a 0 to 100 scale.

188 / PETER BERG, ARNE L. KALLEBERG, AND EILEEN APPELBAUM

APPENDIX TABLE B

MEANS FOR TOTAL EMPLOYEE SAMPLE AND FOR MEN AND WOMEN

| | Total Men | | n | Women | | Range over Total Sample | | |
|---------------------------------------|-----------|------|-------|-------|-------|----------------------------|---------|---------|
| Variable | Mean | SD | Mean | SD | Mean | SD | Minimum | Maximum |
| Work-family balance | 2.29 | 1.0 | 2.27 | 1.0 | 2.34 | 1.0 | 1 | 4 |
| Male | 0.63 | | 1.00 | | | | 0 | 1 |
| Female | 0.37 | | | | 1.00 | | 0 | 1 |
| Age | 43.56 | 10.1 | 44.24 | 9.3 | 42.39 | 11.4 | 18 | 80 |
| Black | 0.11 | | 0.11 | | 0.11 | | 0 | 1 |
| White | 0.78 | | 0.79 | | 0.77 | | 0 | 1 |
| Hispanic | 0.05 | | 0.04 | | 0.05 | | 0 | 1 |
| Other race | 0.06 | | 0.06 | | 0.07 | | 0 | 1 |
| Less than high school | 0.11 | | 0.06 | | 0.20 | | 0 | 1 |
| High school graduate | 0.46 | | 0.42 | | 0.52 | | 0 | 1 |
| Some college | 0.29 | | 0.34 | | 0.20 | | 0 | 1 |
| College degree | 0.14 | | 0.18 | | 0.08 | | 0 | 1 |
| Tenure in years | 13.63 | 10.2 | 15.85 | 10.6 | 9.81 | 8.2 | 0.1 | 51.4 |
| Importance of work-family flexibility | 3.85 | 0.4 | 3.83 | 0.4 | 3.87 | 0.4 | 1 | 4 |
| Married, single earner, with children | 0.13 | | 0.18 | | 0.06 | | 0 | 1 |
| Married, single earner, no children | 0.10 | | 0.11 | | 0.08 | | 0 | 1 |
| Married, dual earner, with children | 0.34 | | 0.32 | | 0.36 | | 0 | 1 |
| Married, dual earner, no children | 0.23 | | 0.24 | | 0.23 | | 0 | 1 |
| Not married, with children | 0.06 | | 0.03 | | 0.12 | | 0 | 1 |
| Not married, no children | 0.14 | | 0.13 | | 0.16 | | 0 | 1 |
| Opportunity to participate scale | 0.58 | 0.2 | 0.59 | 0.2 | 0.55 | 0.2 | 0 | 1 |
| Formal training | 0.69 | | 0.73 | | 0.63 | | 0 | 1 |
| Informal training | 2.85 | 1.0 | 2.83 | 0.9 | 2.89 | 1.0 | 1 | 4 |
| Pay for performance | 0.53 | | 0.57 | | 0.45 | | 0 | 1 |
| Promotion opportunities | 2.20 | 1.0 | 2.43 | 1.0 | 1.82 | 0.9 | 1 | 4 |
| Intrinsic rewards scale | 0.63 | 0.2 | 0.66 | 0.2 | 0.58 | 0.2 | 0 | 1 |
| Job stressors | 3.38 | 1.0 | 3.48 | 1.0 | 3.22 | 1.0 | 1 | 5 |
| Conflict with coworkers | 2.56 | 0.7 | 2.54 | 0.7 | 2.60 | 0.7 | 1 | 5 |
| Hours per week | 44.19 | 7.1 | 46.08 | 7.2 | 40.95 | 5.5 | 8 | 84 |
| Involuntary overtime | 2.38 | 1.0 | 2.42 | 1.0 | 2.30 | 1.0 | 1 | 4 |
| Understanding supervisor | 3.49 | 0.8 | 3.47 | 0.8 | 3.51 | 0.7 | 1 | 4 |
| Childcare referral services | 0.26 | | 0.31 | | 0.17 | | 0 | 1 |
| Organizational commitment | 15.51 | 2.3 | 15.57 | 2.3 | 15.41 | 2.3 | 6 | 24 |