

Work-Family Human Resource Bundles and Perceived Organizational Performance

Author(s): Jill E. Perry-Smith and Terry C. Blum

Source: *The Academy of Management Journal*, Vol. 43, No. 6 (Dec., 2000), pp. 1107-1117

Published by: Academy of Management

Stable URL: <http://www.jstor.org/stable/1556339>

Accessed: 14-02-2017 02:17 UTC

## REFERENCES

Linked references are available on JSTOR for this article:

[http://www.jstor.org/stable/1556339?seq=1&cid=pdf-reference#references\\_tab\\_contents](http://www.jstor.org/stable/1556339?seq=1&cid=pdf-reference#references_tab_contents)

You may need to log in to JSTOR to access the linked references.

---

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact [support@jstor.org](mailto:support@jstor.org).

Your use of the JSTOR archive indicates your acceptance of the Terms & Conditions of Use, available at  
<http://about.jstor.org/terms>



*Academy of Management* is collaborating with JSTOR to digitize, preserve and extend access to *The Academy of Management Journal*

## WORK-FAMILY HUMAN RESOURCE BUNDLES AND PERCEIVED ORGANIZATIONAL PERFORMANCE

JILL E. PERRY-SMITH

TERRY C. BLUM

Georgia Institute of Technology

**Although typically excluded from strategic human resource models, bundles of work-family policies may be an HR approach related to competitive advantage. Symbolic action and resource-based views provide conceptual support for such a relationship. Results from a national sample of 527 U.S. firms suggest that organizations with more extensive work-family policies have higher perceived firm-level performance. In addition, there was partial support for the hypotheses that the relationship between work-family bundles and firm performance is stronger for older firms and firms employing larger proportions of women.**

The idea that human resource (HR) management has some utility to organizations, beyond satisfying regulatory agencies and employees, is not new. In fact, some authors have described human resource management as a means of achieving competitive advantage (Pfeffer, 1994). Consistent with this perspective, the relationship between a variety of human resource practices and firm performance has been investigated (e.g., Arthur, 1994; Delaney & Huselid, 1996; MacDuffie, 1995). Although the individual practices included in strategic HR models vary to some extent, work-family policies have been noticeably excluded. Although work-family policies can be considered progressive and innovative, they have rarely, if ever, been considered strategic, let alone a “best practice” (Pfeffer, 1994). This exclusion may reflect the fact that very little research has investigated the outcomes of work-family initiatives at the organizational level, and research investigating adoption has pointed to institutional pressure (Goodstein, 1994; Ingram & Simons, 1995). Although proponents argue that work-family policies are beneficial to organizations (Gonyea & Googins, 1992; Kamerman & Kahn, 1987), we found no empirical tests supporting this belief in the literature. The purpose of this study was to address this “disconnect” by investigating the relationship between bundles of work-family policies and organizational performance.

---

We thank Charles Parsons and Christina Shalley for comments on earlier versions. We also thank Anne Tsui and the anonymous reviewers for the useful suggestions and comments provided throughout the review process.

### THEORETICAL BACKGROUND AND HYPOTHESES

Taking a bundle approach, rather than focusing one-by-one on individual work-family policies, is consistent with ideas advanced in strategic HR research (Becker & Gerhart, 1996; Ichniowski, Shaw, & Prennushi, 1997; MacDuffie, 1995). A work-family bundle can be defined as a group of complementary, highly related and, in some cases, overlapping human resource policies that may help employees manage nonwork roles. Work-family research (Goodstein, 1994; Ingram & Simons, 1995; Osterman, 1995) suggests that the types of individual policies that may be part of such a bundle include dependent care services, flexible scheduling programs (including various types of family leave), and information and referral services. However, the bundle approach is less focused on specific components and is more focused on the extent to which the policies are highly related and interactive in a way that suggests an organization-level approach or philosophy. As a result, an HR bundle captures a broader, higher-level effect than that which can be captured by focusing on individual policies and is particularly appropriate for investigating firm-level effects (Becker & Gerhart, 1996). Consistent with these ideas, a growing body of work-family research has focused on a range of policies (Goodstein, 1994; Ingram & Simons, 1995; Osterman, 1995) or an overall philosophy related to family friendliness (e.g., Grover & Crooker, 1995; Judge, Boudreau, & Bretz, 1994).

As with other HR bundles (Becker & Gerhart, 1996; Pfeffer, 1994), the mechanism through which work-family bundles add value at the firm level is complex and not intuitively obvious. According to Pfeffer's (1981) symbolic action perspective, ac-

tions that symbolize organizational concern or special treatment, regardless of their actual content, can provide intangible benefits to organizations. Organizational actions, like offering bundles of work-family policies, supply signals to current and potential employees that allow them to make conclusions about the values and philosophies of an organization. Because work-family bundles provide relief for nonwork concerns, a benefit that is not mandatory and has not yet been institutionalized across organizations, employees may feel that they are receiving special treatment. Furthermore, a range of work-family policies is likely to both symbolize that the organization cares about employee well-being and to represent a value system (Grover & Crooker, 1995). In a work context with these discretionary employee-centered values, employees are likely to respond favorably. They will reciprocate by contributing extra effort, by developing a concern for the overall success of the organization, and by embracing its goals (MacDuffie, 1995; Ostroff, 1992; Pfeffer, 1994). As a result, a context of enhanced organizational performance will likely emerge (Ostroff, 1992).

Work-family bundles may create value for firms, but their contribution to firm-level performance is further supported by the idea that bundles of inter-related work-family policies may also be a source of sustained competitive advantage. According to the resource-based view of the firm (e.g., Barney, 1991; Wright & McMahan, 1992), an internal resource can be a source of a sustained competitive advantage when the strategic advantage created is not easily imitated. The complex mechanism through which work-family bundles may influence performance reflects causal ambiguity that reduces the likelihood of imitation. In addition, imitation by competitors is impeded when the internal resource is socially complex. The synergies created by the range of policies in a work-family bundle and the broader corporate philosophy it reflects may hamper imitation.

Furthermore, the imitation of work-family bundles is hindered because adoption is complex and difficult. Noneconomic barriers may interfere with the adoption of progressive practices, even those that may have firm-level benefits (Ichniowski et al., 1997; Pfeffer, 1997). Essentially, management's belief system and attitudes about managing employees may restrict the adoption of multiple work-family policies (Kossek, Dass, & DeMarr, 1994). A unique feature of work-family bundles is that they can take employees outside of organizational boundaries or bring their families inside. This situation requires, in some cases, a greater amount of trust on the part of management and the relinquish-

ing of control. In addition, this softening of firmly drawn organizational boundaries requires a fundamental shift in common organizational paradigms. Organizational decision makers may unjustifiably fear attracting workers on the "family track" with less stable employment patterns and less organizational commitment. Therefore, quite a bit of change is required to go from having no work-family policies to providing a comprehensive work-family bundle, and adoption of such a bundle is not likely to be easy.

It is consistent with the existence of these barriers to imitation that bundles of work-family policies continue to be rare among U.S. firms (Ingram & Simons, 1995; Osterman, 1995). Although certain individual work-family policies are more common than others, a comprehensive set continues to be an exception within many industries. This rarity, particularly at the system level, is shared by other strategic HR systems (Ichniowski et al., 1997; Pfeffer, 1994, 1997) and further supports the competitive advantage potential of work-family bundles. Therefore, because bundles of work family policies are expected to be a source of sustained competitive advantage and add value to firms via their representation as favorable organizational actions, we expected these bundles to be positively related to a firm's performance.

*Hypothesis 1. Firms with more comprehensive bundles of work-family policies will have higher organizational performance than firms with less comprehensive bundles.*

Several organizational characteristics may moderate the relationship between work-family bundles and firm performance. Firms that are more subjected to institutional pressure or that exist in more institutionalized environments should receive greater benefits from the adoption of work-family policies. Firm size has been one indicator of the extent to which a firm concedes to institutional demands, with larger firms expected to be more affected by such pressures (Goodstein, 1994; Kalleberg & Van Buren, 1996). Firms that act in accordance with institutional pressures, such as larger firms, should receive legitimacy and survival "credits" (Meyer & Rowan, 1977), and symbolic actions should be more easily processed in an environment in which such actions are valued or encouraged. In addition, larger firms tend to be more likely to adopt work-family policies (Goodstein, 1994; Ingram & Simons, 1995). This finding suggests that larger firms may be at the forefront of adoption and thus can be considered "early adopters," an advantageous position. Although smaller firms can more easily adopt work-family policies,

they may be more likely to do so only when these policies are more firmly established. At this later stage of adoption, the competitive advantage potential of these policies may be lessened. Furthermore, a range of policies provides enhanced flexibility, allowing a firm to maintain sustainable fit with an unstable and changing environment (Wright & Snell, 1998). This flexibility may be particularly beneficial for larger firms that are otherwise subjected to inertial forces and rigidity that limit change. For smaller firms, flexibility based on multiple policies may be less important, given the flexibility already inherent in the systems and processes characteristic of small firms. Therefore,

*Hypothesis 2a. The relationship between work-family human resource bundles and firm performance will be stronger for larger firms than for smaller firms.*

Younger firms tend to be more concerned with mere survival than older, more established firms (Martinez & Dacin, 1999; Meyer & Rowan, 1977). As a result, access to critical resources and legitimacy are very important to a young firm, and efficiency considerations may be less pressing. The younger firm, therefore, may be more likely to "ceremonially adopt" policies and practices that are seen as legitimate, particularly when analysis of the costs and benefits of these policies is ambiguous (Martinez & Dacin, 1999). In a similar circumstance, an older firm is more likely to balance efficiency considerations with desires for legitimacy. For these firms, which are less preoccupied with mere survival, efficiency (or profit maximization) considerations play a larger role. To achieve both aims, the older firm may be more likely to apply a loosely coupled approach in which its technical core can be "buffered" (Greening & Gray, 1994; Martinez & Dacin, 1999). This loosely coupled approach allows organizational effectiveness to be enhanced without contributing to internal ineffectiveness. This "efficient imitation" approach should be more effective than ceremonial adoption (Martinez & Dacin, 1999). Therefore, the adoption strategy more likely to be chosen by an older firm in a context of ambiguous information, like that surrounding work-family policies, should result in greater effectiveness benefits.

*Hypothesis 2b. The relationship between work-family human resource bundles and firm performance will be stronger for older firms than for younger firms.*

Firms seek to control critical internal resources, such as their workforces, by being responsive to their needs (Pfeffer & Salancik, 1978). In the case of

work-family policies, a key assumption is that they are a salient need and reflect an important value system for women. As a result, the extent to which a firm employs women is expected to be related to its adoption of work-family policies (Goodstein, 1994; Ingram & Simons, 1995; Milliken, Martins, & Morgan, 1998). Similarly, we can expect that firms with a greater proportion of employees who value work-family policies will experience greater symbolic value from adopting these policies. Therefore,

*Hypothesis 2c. The relationship between work-family human resource bundles and firm performance will be stronger for firms employing greater proportions of women.*

Several variables might contribute to alternative explanations for the hypothesized relationships. These needed to be controlled for in the analyses. The variables selected as controls here are consistent with those used by Delaney and Huselid (1996) and with those found in work-family research. Divisions of larger firms may be more likely to offer progressive HR practices than other organizations, and status as a for-profit or nonprofit organization may account for differences in practices and performance goals. In addition, an organization's competitive environment may affect performance and the tendency to implement nonstandard practices. The presence of other progressive HR practices may be related to the presence of work-family policies; in fact, a work-family bundle may be part of a broader system of innovative HR practices. Similarly, firms in nonmanufacturing industries are more likely to adopt other HR initiatives as well as work-family policies (Blum, Fields, & Goodman, 1994; Ingram & Simons, 1995; Milliken et al., 1998), and firm performance measures are expected to differ for manufacturing and nonmanufacturing firms (Terpstra & Rozell, 1993). Levels of standard benefits, such as health insurance and life insurance, are also relevant, because they suggest a firm's tendency to share excess resources with employees (Osterman, 1995). Additional factors that may have implications for the adoption of progressive practices and firm performance include the extent to which a firm faces union pressure and the percentage of employees who are managers.

## METHODS

### Data

The data were obtained from the National Organizations Survey (NOS; Kalleberg, Knoke, Marsden, & Spaeth, 1993, 1994), a national study of U.S. work establishments conducted by the Survey Re-

search Laboratory of the University of Illinois. The organizations included in the NOS were identified from responses to the 1991 General Social Survey (GSS), an annual face-to-face survey of the adult U.S. population. As a result, the probability that a firm is included in the NOS sample is proportionate to its number of employees (Spaeth & O'Rourke, 1994). However, an organization was only included once in the NOS even if it was identified by more than one respondent. Telephone interviews were conducted, and a moderate proportion of interviews required more than two sessions (26%). Although the designated informant was a personnel director type, 17 percent of the cases required the interviewers to contact more than one respondent to obtain the range of factual data required. Overall, 64.5 percent (727) of the establishments contacted (1,127) were respondents, or 50.9 percent of the establishments identified by GSS respondents. These 727 establishments represent a variety of industries and sizes and were found to be representative of firms in the United States (Spaeth & O'Rourke, 1994). Although the sample was reduced to 527 for our study because of missing data, the distribution of industry and firm size for the 527 firms is generally consistent with that for the dropped firms; differences include overrepresentation of business services (for example, advertising and personnel services) and underrepresentation of personal services (for example, hotels and cleaning services).

## Measures

**Dependent variables.** We used three dependent variables in this study to reflect firm-level performance. Two of these, organizational performance and market performance, are the perceptual measures of firm performance used by Delaney and Huselid (1996), who also used data from the NOS. Organizational performance, a seven-item measure ( $\alpha = .87$ ) of perceived firm performance assessed relative to that of other firms doing the same kind of work, includes items such as the quality of products, the ability to attract essential employees, and relations between management and employees. The second dependent variable, market performance, is a four-item measure ( $\alpha = .85$ ) of perceived market performance assessed relative to that of other firms and includes items related to marketing and market share. The third dependent variable, profit and sales growth, is a two-item measure of a firm's percentage increase in sales and profits over the last 12 months ( $r = .75$ ). The market performance and profit-sales growth items were only available for profit-making firms.

**Independent variables.** Eight work-family policies were included in the analyses: on-site day care, help with day care costs, elder care assistance, information on community day care, paid parental leave, unpaid parental leave, maternity or paternity leave with reemployment, and flexible scheduling. These eight policies have been widely represented in the work-family literature (e.g., Goodstein, 1994; Ingram & Simons, 1995; Osterman, 1995) and correspond with specific NOS questions that were coded 1 if a company had the policy and 0 if it did not. We performed a principal component factor analysis with varimax rotation to categorize the individual work-family policies. Two factors with eigenvalues greater than 1.00 were extracted; however, these factors involved cross-loadings for several of the individual policies. To obtain cleaner loadings, we set the number of factors equal to three and obtained better results. The third factor had an eigenvalue equal to 0.97, and the three factors together explained 55 percent of the variance. In an additional analysis, we performed principal component factor analysis with varimax rotation using the polychoric correlations between the dichotomous work-family policies, and the resulting factors were the same. The three factors can be described as leave policies (leave, unpaid parental leave, and paid parental leave), traditional dependent care (day care, flexible scheduling, and child care information), and less traditional dependent care (monetary assistance with day care and elder care assistance).

Three scales based on the three identified factors were created, and standardized values for the three items were entered in a cluster analysis. We identified the number of clusters using two different hierarchical procedures (Ward's method and weighted-average) using Euclidean distance measures. To check the reliability of the clusters, we employed the recommended split-sample methodology (Ketchen & Shook, 1996; Milligan, 1996). A discriminant equation based on a random half of the sample identified clusters in a second half of the sample. A comparison between the clusters identified in this manner and a cluster analysis on the second half of the sample suggested a reasonable level of agreement (Cohen's  $\kappa = 0.43$ ,  $p < .01$ ). We obtained the final cluster groupings by applying the number of clusters identified in the hierarchical procedure to the nonhierarchical, K-means, procedure. Table 1 shows the means and number of cases for each of the four clusters identified: organizations in which all of the categories represented are relatively scarce, organizations in which leave policies and less traditional dependent care policies are prevalent, organizations in which leave

**TABLE 1**  
**Descriptive Statistics for Work-Family Clusters<sup>a</sup>**

Variable	Group 1: Low on All Work-Family Policies	Group 2: Leaves and Less Traditional Dependent Care <sup>b</sup>	Group 3: Leaves and Traditional Dependent Care <sup>c</sup>	Group 4: High on All Work-Family Policies
Leave policies	-0.90 (0.82)	0.49 (0.61)	0.55 (0.61)	0.52 (0.58)
Traditional dependent care	-0.68 (0.62)	-0.25 (0.56)	0.40 (0.86)	1.51 (0.42)
Less traditional dependent care	-0.56 (0.21)	1.46 (0.72)	-0.58 (0.00)	1.56 (0.76)
Firm size	2.84 (1.99)	5.17 (2.22)	4.79 (1.92)	5.87 (2.05)
Firm age	2.88 (1.10)	3.48 (1.07)	3.17 (1.16)	3.52 (0.99)
Percentage of women	41.98 (41.01)	43.68 (37.64)	50.76 (38.74)	55.00 (35.72)
Number of cases	178	88	195	66

<sup>a</sup> Figures in parentheses are standard deviations.

<sup>b</sup> Less traditional dependent care includes elder care and monetary assistance with day care.

<sup>c</sup> Traditional dependent care includes on-site day care, child care information, and flexible scheduling.

policies and traditional dependent care policies are prevalent, and organizations in which all three categories of work-family policies are prevalent.

**Moderators and control variables.** The control variables used for this study, with the exception of standard benefits, were also used by Delaney and Huselid (1996). The extent to which a firm offered progressive HR practices was measured with four scales and two single-item measures: staffing selectivity ( $\alpha = .75$ ), training effectiveness ( $\alpha = .91$ ), incentive compensation ( $\alpha = .84$ ), grievance procedures, decentralized decision making ( $\alpha = .91$ ), and number of occupational levels (vertical hierarchy). A dichotomous variable was used to indicate if an organization was part of a larger organization (a subsidiary), and a dummy variable was incorporated to capture profit or not-for-profit status. The variable union pressure reflected responses about problems with union relations, with "no problem" coded 1 and "major problems" coded 3, and industry effects were controlled by creating a dummy variable, industry type, distinguishing between manufacturing and nonmanufacturing industries. The percentage of managers was captured by a variable reflecting the proportion of employees in management positions. Two questions that addressed the extent of domestic or foreign competition in a firm's main product or service area (1 = "no competition" and 4 = "a great deal") were combined to form the competitive pressure variable, and a scale was created with each of the standard benefits (health insurance, dental insurance, life insurance, disability insurance, sick leave, pension programs, and drug/alcohol programs) coded 1 if a company offered the benefit and 0 if the company did not. The moderator variables were measured as follows: Firm size was the logarithm of total employees; firm age was the natural logarithm of 1991 minus

the founding year; and the proportion of women was measured as the percentage of women in core positions (jobs that are directly involved with the main product or service of a firm).

**Validation of dependent and independent variables.** We checked the validity of components of the firm performance measures by comparing the NOS informants' responses with another source, the *U.S. Industrial Outlook* (U.S. Department of Commerce, 1992). Sales growth for ten "selected industries," representing construction and manufacturing, was used to verify the sales growth responses. Sales growth for 1990 was selected because the NOS data collection period started in April 1991. The *U.S. Industrial Outlook's* subset of industries was matched with the detailed NOS industry codes, and averages were obtained. The rank-order correlation for the subset of industries was .60 ( $p < .05$ ). In addition, we used Standard & Poor's COMPUSTAT to verify the mean industry profit growth for all sampled industries except public administration. Ten industry groups were used, including agriculture, various services, and retail establishments. The mean profit growth for the NOS and COMPUSTAT was calculated; the rank-order correlation between the two data sets was .72 ( $p < .05$ ). This correlation also involved a subset of firms because the NOS sales information was only available for profit-making firms. Rank-order correlation was used for both the profit and sales validation because the comparisons were only possible in the aggregate and involved a small number of categories.

To validate components of the independent variable, we compared the work-family policies identified by employees of the organizations included in the NOS (GSS participants) with the HR informants' responses. Following Jones, Johnson, But-

ler, and Main (1983), we analyzed percent agreement between the two sources. The percent agreement for each work-family policy that the individual employees were asked about is as follows: parental leave, 72 percent; flexible scheduling, 60 percent; child care information, 72 percent; and monetary assistance with day care, 81 percent.

## ANALYSES AND RESULTS

Table 2 presents the means, standard deviations, and zero-order correlations for the variables. Correlations are displayed for all firms (for-profit and nonprofit) as well as for the reduced data set of for-profit firms only.

The hypotheses were assessed with multivariate analysis of covariance (MANCOVA). The four cluster groupings identified in Table 1 were entered as the independent variables; the three firm performance measures (organizational performance, market performance, and profit-sales growth) were entered as the dependent variables; and all of the control variables were entered as covariates. The multivariate effect for the work-family cluster groupings was significant (Wilks's  $\Lambda = 0.93$ ,  $F_{9, 699} = 2.43$ ,  $p < .05$ ,  $\eta^2 = .03$ ). Therefore, an investigation of the univariate effects was warranted. The univariate results are presented in Table 3, along with the mean for each cluster grouping for each of the three dependent variables. The organizational performance dependent variable was also assessed using a separate ANCOVA because of the large loss in cases when this variable was analyzed with the other two variables; these results are also presented in Table 3.

As predicted in Hypothesis 1, we expected the work-family clusters to be correlated with different levels of firm performance. Differences in perceived organizational performance across the different groupings of work-family policies were significant both in multivariate analyses ( $F_{3, 289} = 3.51$ ,  $p < .05$ ,  $\eta^2 = .04$ ) and in individual analyses run with the larger sample size ( $F_{3, 507} = 356$ ,  $p < .05$ ,  $\eta^2 = .02$ ). Similarly, in the case of perceived market performance, differences in work-family policies were significant ( $F_{3, 289} = 4.07$ ,  $p < .01$ ,  $\eta^2 = .04$ ). In addition, the effect of the cluster groupings of work-family policies was significant when profit-sales growth was used as the dependent variable ( $F_{3, 289} = 3.58$ ,  $p < .05$ ,  $\eta^2 = .04$ ).

Post hoc Scheffe comparisons confirmed a significant difference between the clusters reflecting firms likely to have all the work-family policies and firms likely to have few work-family policies for the profit-sales growth dependent variable ( $p < .05$ ) and the market performance dependent variable

( $p < .10$ ). Although the post hoc Scheffe test for organizational performance was not significant, planned comparisons ( $t$ -tests) between the two clusters were significant for both the smaller sample using multivariate analysis and the larger sample ( $p < .10$  and  $p < .05$ , respectively). In addition, a significant difference existed between the firms likely to have only leave and less traditional work-family policies and those tending to have all work-family policies for profit-sales growth, market performance, and organizational performance (Scheffe,  $p < .05$  to  $p < .10$ ). Therefore, the results support the hypothesis that firms with more work-family policies have higher firm-level performance than firms with fewer work-family policies.

Hypotheses 2a–2c predict a significant interaction between the work-family clusters and firm size, firm age, and the percentage of women employed, respectively. The multivariate effect of the interaction between firm size and the work-family clusters was not significant (Wilks's  $\Lambda = 0.95$ ,  $F_{9, 691} = 1.52$ ,  $p > .10$ ,  $\eta^2 = .02$ ). Therefore, Hypothesis 2a is not supported. The multivariate effect of the interaction between firm age and the work-family clusters (Wilks's  $\Lambda = 0.93$ ,  $F_{9, 691} = 2.49$ ,  $p < .01$ ,  $\eta^2 = .03$ ) and the percentage of women and the work-family clusters (Wilks's  $\Lambda = 0.92$ ,  $F_{9, 691} = 2.75$ ,  $p < .01$ ,  $\eta^2 = .03$ ) were significant. The univariate effect was significant for profit-sales growth for both the firm age and work-family cluster interaction ( $F_{3, 286} = 4.54$ ,  $p < .01$ ,  $\eta^2 = .05$ ) and the percentage of women and work-family interaction ( $F_{3, 286} = 4.00$ ,  $p < .01$ ,  $\eta^2 = .04$ ). However, this effect was not significant for market growth or organizational performance for either interaction.

We used a post hoc analysis (a Scheffe partial interaction contrast) to further explore the significant effects for profit-sales growth. The interaction between (1) the comparison of firms likely to have all work-family policies and those likely to have no work-family policies and (2) firm age was positive and significant ( $p < .05$ ). Consistent with Hypothesis 2b, this suggests that the relationship between more work-family policies and performance is greater for older firms. Similarly, a post hoc Scheffe partial interaction contrast analysis of the interaction between firms with more work-family policies and those with none and the percentage of women employees was positive and significant ( $p < .05$ ). This suggests that the relationship between having more work-family policies and performance is greater for firms with higher proportions of women, providing support for Hypothesis 2c. Overall, Hypotheses 2b and 2c were partially supported because the results did not support these interactions

TABLE 2  
Means, Standard Deviations, and Correlations for All Variables<sup>a</sup>

Variable	Mean	s.d.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1. Organizational performance	3.06	0.62																			
2. Market performance	2.84	0.76	.36	.51																	
3. Profit-sales growth	7.81	29.48	.04	-.01	-.14	.14															
4. Subsidiary	1.46	0.50	.08	-.45	-.08	.31	-.26	-.06	.08	.52	-.10										
5. Firm size	4.33	2.30	-.05	-.29	.45	-.64	.29	.17	-.23	.69	.08										
6. Firm age	3.17	1.13	-.15	-.11	.46	-.25	.11	.14	-.17	.36	-.02										
7. Percentage of managers	0.19	0.23	.03	.27	-.62	-.27	-.17	-.18	.02	-.48	-.09										
8. Union pressure	1.38	0.61	-.18	-.21	.28	.13	-.18	.10	-.16	.27	.00										
9. Competitive pressure	3.02	1.10	.12	.11	-.03	-.17	.03	-.05	-.06	.23	-.03										
10. Industry type	0.73	0.44	.06	.02	-.06	-.01	-.07	-.06	-.17	-.19	.34										
11. Benefits	0.73	0.33	-.03	-.46	.64	.42	-.50	.27	-.10	-.05	-.04										
12. Percentage of women	47.14	39.18	-.06	-.09	.07	.00	-.12	.03	-.02	.33	-.03										
13. Nonprofit status	1.35	0.48	-.18	-.16	.32	.36	-.25	.17	-.52	.34	.33	.16									
14. Staffing selectivity	0.07	0.82	.03	-.15	.50	.22	-.37	.14	.00	.06	.36	.09	.23								
15. Training effectiveness	0.05	0.90	.07	-.31	.66	.33	-.49	.22	-.03	-.02	.60	.04	.27	.40							
16. Incentive compensation	2.62	0.60	.13	.05	-.03	-.01	.03	-.17	.24	-.04	-.02	.00	-.23	.03	.01						
17. Grievance procedures	0.69	0.46	-.05	-.44	.58	.33	-.45	.26	-.20	.06	.60	.12	.41	.33	.50	-.07					
18. Decentralized decision making	3.47	0.97	.06	.26	.50	.22	-.18	.04	.22	-.15	.17	-.06	-.06	.29	.30	.17	.10				
19. Vertical hierarchy	1.62	0.78	.02	-.29	.64	.32	-.52	.20	-.06	-.06	.55	.03	.19	.33	-.50	.01	.46	.31			

<sup>a</sup> Below the diagonal are correlations for all firms ( $n = 527$ ). All correlations greater than .07 are significant at the .05 level; those greater than .10 are significant at the .01 level. Above the diagonal are correlations for profit-making firms only ( $n = 308$ ). Correlations greater than .11 are significant at the .05 level; those greater than .14 are significant at the .01 level.



**TABLE 3**  
**Results of Univariate Analysis of Covariance: Main Effects<sup>a</sup>**

Variable <sup>b</sup>	Group 1: Low on All Work-Family Policies	Group 2: Leaves and Less Traditional Dependent Care	Group 3: Leaves and Traditional Dependent Care	Group 4: High on All Work-Family Policies	Univariate <i>F</i>	$\eta^2$
Number of cases	137	36	114	21		
Market performance	2.69	2.70	2.98	3.36	4.07**	0.04
Profit-sales growth	5.85	2.31	8.12	28.31	3.58*	0.04
Organizational performance	3.08	2.99	3.23	3.48	3.51*	0.04
Number of cases	178	88	195	66		
Organizational performance	2.99	2.96	3.11	3.17	3.56*	0.02

<sup>a</sup> The following control variables were included as covariates: subsidiary, firm size, firm age, percentage of managers, union pressure, competitive pressure, industry type, benefits, percentage of women, nonprofit status (for the organizational performance equation for the larger number of cases only), and progressive HR practices (staffing selectivity, training effectiveness, incentive compensation, grievance procedures, decentralized decision making, and vertical hierarchy).

<sup>b</sup> For the top set of results,  $n = 308$ ; for the lower set of results,  $n = 527$ . The latter were obtained in a separate ANCOVA performed only for the organizational performance variable that includes all firms (both nonprofit and for-profit firms). Market performance and profit-sales growth data were only available for profit-making firms.

\*  $p < .05$

\*\*  $p < .01$

for market performance or organizational performance.

## DISCUSSION

The findings suggest that the presence of a bundle of work-family policies is positively associated with perceived firm-level performance. Specifically, organizations with a greater range of work-family policies have higher levels of organizational performance, market performance, and profit-sales growth. In addition to supporting the specific hypotheses of this study, the significant link between work-family bundles and performance provides support for both a symbolic action perspective and the resource-based view of the firm. Work-family bundles may promote obligation and interest in organizations because such policies serve as positive symbols for employees. Furthermore, work-family bundles may be a source of competitive advantage in a business climate in which their adoption is limited.

Although the direct effect of work-family bundles was consistent and easily interpretable, interactions with a variety of organizational factors were less clear. The relationship between a work-family bundle and firm performance appears to be moderated by firm age for only one of the three firm outcome measures, profit and sales growth. The limited findings for the firm age interaction may be explained by Hannan's (1998) idea regarding the inconsistencies of age effects in organizational research. Perhaps firm-level variables at founding and at other points in the development of a firm

should be considered when age dependency relationships are examined. As was the case with firm age, the relationship between a work-family bundle and firm performance seems to vary as a function of the proportion of women only for profit-sales outcomes. This overall weak finding for the proportion of women interaction may suggest that gender should receive less attention in work-family research and that other factors, such as life stage variables, may be more instructive. Finally, the relationship between work-family and firm performance does not appear to be moderated by firm size. Neither legitimacy and survival credits derived from conforming to institutional pressures nor early adopter status may be strong enough to differentiate larger firms from smaller firms.

## Future Research

Numerous avenues can be explored to build upon the results presented here. A deeper investigation of work-family issues, going beyond a simple "more is better" approach, should provide valuable additional insight. To the extent our measures are limited, more extensive measures of work-family bundles may yield stronger effects. For instance, the depth of work-family policies, in addition to their breadth, may enhance firm-level effects. The extent to which such policies are used and fully ingrained in the culture and operations of an organization may have effects beyond the symbolic ones we have suggested. In addition, future studies should incorporate various types of flexible work designs as well as more current and creative

dependent care approaches. The policies used in this study reflected those previously studied, but they were not an exhaustive set.

In addition, more consideration should be given to moderators in future research. For instance, the association between work-family policies and performance may depend on a firm's business strategy, its management's attitudes and orientation toward work-family policies, and the supportiveness of the firm's culture. Workforce characteristics associated with employees' life stages should also be explored, and the extent to which work-family bundles are part of a broader innovative HR system or are distinct from other strategic practices needs further attention. With regard to environmental factors, industry interconnectedness and the availability of community-based work-family support options may diminish the competitive advantage associated with work-family bundles.

Future research should also investigate the mechanisms through which work-family policies affect firm performance. Although our intent was not to specify intervening mechanisms, the symbolic action perspective and the resource-based view suggest several possibilities. For example, employee attitudes such as organizational commitment and employee behaviors such as organizational citizenship may serve as mediators. In addition, the extent to which other firms do not understand or have difficulty in implementing an extensive range of work-family policies may be relevant to performance effects. However, other theoretical perspectives (see Wright & Snell, 1998) may be more useful for understanding mediating variables.

### Limitations

The results presented in this study are a nice starting point for future research, but it is important to keep the study's limitations in mind. One limitation is the use of cross-sectional data. Whether firm performance predicts the adoption of work-family bundles is a question that could be more conclusively answered with longitudinal designs. Another issue is common method variance. Generally, collection of data for both the dependent variable and the independent variable from the same source is problematic. However, the agreement between the organizational informant and individual employee responses and the correlation between objective data and perceived profit and sales growth provide some assurance as to the validity of the data. In addition, the results of a Harmon one-factor test (Podsakoff & Organ, 1986) suggested common method variance was not likely to be a

concern. A third limitation, the small variance accounted for by the work-family variables and interaction terms, suggests caution should be applied when ascribing practical significance to the findings. Finally, perceptual measures of performance are not as desirable as objective measures; the observed results may be partially due to attribution bias. However, research has suggested a high degree of correlation exists between objective and perceptual measures of performance (Dess & Robinson, 1984; Dollinger & Golden, 1992), and perceptual survey measures are a meaningful tool, particularly when multiple sources are used to validate measures and when an area of research is in the early stages of development (Spector, 1994).

### Conclusion

Despite the limitations discussed, the results of this study advance the field by empirically showing a link between bundles of human resource work-family policies and organizational outcomes. The robustness of the effects of the presence of such policies in highly stringent models that include many controls and across a variety of firm-level performance measures is noteworthy. The interrater agreement of components of the work-family index is another strength of this study. In addition, the rigor of the NOS data collection procedure and sampling frame and the representativeness of the sample are also positive features. Overall, this research endeavor suggests a relationship exists between work-family bundles and several dimensions of organizational performance. Perhaps an HR bundle that gives employees the flexibility, the information, the convenience, and the financial assistance to better manage their nonwork lives can be considered strategic and should be added to the list of the "best practices" of strategic human resource management.

### REFERENCES

- Arthur, J. B. 1994. Effects of human resource systems on manufacturing performance and turnover. *Academy of Management Journal*, 37: 670-687.
- Barney, J. 1991. Firm resources and sustained competitive advantage. *Journal of Management*, 17: 99-120.
- Becker, B., & Gerhart, B. 1996. The impact of human resource management on organizational performance: Progress and prospects. *Academy of Management Journal*, 39: 779-801.
- Blum, T. C., Fields, D. L., & Goodman, J. S. 1994. Organizational-level determinants of women in man-

- agement. *Academy of Management Journal*, 37: 241–268.
- Delaney, J. T., & Huselid, M. A. 1996. The impact of human resource management practices on perceptions of organizational performance. *Academy of Management Journal*, 39: 949–969.
- Dess, G. G., & Robinson, R. B. 1984. Measuring organizational performance in the absence of objective measures: The case of the privately-held firm and conglomerate business unit. *Strategic Management Journal*, 5: 265–273.
- Dollinger, M. J., & Golden, P. A. 1992. Interorganizational and collective strategies in small firms: Environmental effects and performance. *Journal of Management*, 1: 695–715.
- Gonyea, J. G., & Googins, B. K. 1992. Linking the worlds of work and family: Beyond the productivity trap. *Human Resource Management*, 31: 209–226.
- Goodstein, J. D. 1994. Institutional pressures and strategic responsiveness: Employer involvement in work-family issues. *Academy of Management Journal*, 37: 350–382.
- Greening, D. W., & Gray, B. 1994. Testing a model of organizational response to social and political issues. *Academy of Management Journal*, 37: 467–498.
- Grover, S., & Crooker, K. 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: 271–287.
- Hannan, M. T. 1998. Rethinking age dependence in organizational mortality: Logical formalizations. *American Journal of Sociology*, 104: 126–164.
- Ichniowski, C., Shaw, K., & Prennushi, G. 1997. The effects of human resource management practices on productivity: A study of steel finishing lines. *American Economic Review*, 87: 291–313.
- Ingram, P., & Simons, T. 1995. Institutional and resource dependence determinants of responsiveness to work-family issues. *Academy of Management Journal*, 38: 1466–1482.
- Jones, A. P., Johnson, L. A., Butler, M. C., & Main, D. S. 1983. Apples and oranges: An empirical comparison of commonly used indices of interrater agreement. *Academy of Management Journal*, 26: 507–519.
- Judge, T. A., Boudreau, J. W., & Bretz, R. D. 1994. Job and life attitudes of male executives. *Journal of Applied Psychology*, 79: 767–782.
- Kalleberg, A. L., Knoke, D., Marsden, P. V., & Spaeth, J. L. 1993. *The 1991 national organizations survey* [machine readable data file]. University of Minnesota (producer); Inter-university Consortium for Political and Social Research (distributor), Ann Arbor, MI.
- Kalleberg, A. L., Knoke, D., Marsden, P. V., & Spaeth, J. L. 1994. The national organizations study: An introduction and overview. *American Behavioral Scientist*, 37: 860–871.
- Kalleberg, A. L., & Van Buren, M. E. 1996. Is bigger better? Explaining the relationship between organization size and job rewards. *American Sociological Review*, 61: 47–66.
- Kamerman, S. B., & Kahn, A. J. 1987. *The responsive workplace*. New York: Columbia University Press.
- Ketchen, D. J., & Shook, C. L. 1996. The application of cluster analysis in strategic management research: An analysis and critique. *Strategic Management Journal*, 17: 441–458.
- Kossek, E. E., Dass, P., & DeMarr, B. 1994. The dominant logic of employer-sponsored work and family initiatives: Human resource managers' institutional role. *Human Relations*, 47: 1121–1149.
- MacDuffie, J. P. 1995. Human resource bundles and manufacturing performance: Organizational logic and flexible production systems in the world auto industry. *Industrial and Labor Relations Review*, 48: 197–221.
- Martinez, R. J., & Dacin, M. T. 1999. Efficiency motives and normative forces: Combining transaction costs and institutional logic. *Journal of Management*, 25: 75–96.
- Meyer, J., & Rowan, B. 1977. Institutionalized organizations: Formal structure as myth and ceremony. *American Journal of Sociology*, 83: 340–363.
- Milligan, G. W. 1996. Clustering validation: Results and implications for applied analysis. In P. Arabie, L. J. Hubert, & G. DeSute (Eds.), *Clustering and classification*: 341–375. Singapore: World Scientific Publishing Company.
- Milliken, F. J., Martins, L. L., & Morgan, H. 1998. Explaining organizational responsiveness to work-family issues: The role of human resource executives as issue interpreters. *Academy of Management Journal*, 41: 580–592.
- Osterman, P. 1995. Work/family programs and the employment relationship. *Administrative Science Quarterly*, 40: 681–700.
- Ostroff, C. 1992. The relationship between satisfaction, attitudes, and performance: An organizational level analysis. *Journal of Applied Psychology*, 77: 963–974.
- Pfeffer, J. 1981. Management as symbolic action: The creation and maintenance of organizational paradigms. In L. L. Cummings & B. M. Staw (Eds.), *Research in organizational behavior*, vol. 3: 1–52. Greenwich, CT: JAI Press.
- Pfeffer, J. 1994. *Competitive advantage through people: Unleashing the power of the work force*. Boston: Harvard Business School Press.
- Pfeffer, J. 1997. *New directions for organization theory*. New York: Oxford University Press.
- Pfeffer, J., & Salancik, G. R. 1978. *The external control of organizations*. New York: Harper & Row.

- Podsakoff, P. M., & Organ, D. W. 1986. Self-reports in organizational research: Problems and prospects. *Journal of Management*, 12: 531-558.
- Spaeth, J. L., & O'Rourke, D. P. 1994. Designing and implementing the National Organizations Study. *American Behavioral Scientist*, 37: 872-890.
- Spector, P. E. 1994. Using self-report questionnaires in OB research: A comment on the use of a controversial method. *Journal of Organizational Behavior*, 15: 385-392.
- Terpstra, D. E., & Rozell, E. J. 1993. The relationship of staffing practices to organizational level measures of performance. *Personnel Psychology*, 46: 27-48.
- U.S. Department of Commerce. 1992. *U.S. industrial outlook*. Washington, DC: U.S. Government Printing Office.
- Wright, P. M., & McMahan, G. C. 1992. Theoretical perspectives for strategic human resource management. *Journal of Management*, 18: 295-320.
- Wright, P. M., & Snell, S. A. 1998. Toward a unifying framework for exploring fit and flexibility in strategic human resource management. *Academy of Management Review*, 23: 756-772.

**Jill E. Perry-Smith** is a doctoral candidate in the DuPree College of Management at Georgia Institute of Technology. Her research interests include social networks, creativity and innovation, and progressive human resource initiatives.

**Terry C. Blum** is the Tedd Munchak Chair and the dean of the DuPree College of Management at Georgia Institute of Technology, where she leads a research program in the organization and management of behavioral health service organizations. She received her Ph.D. from Columbia University and is interested in the start-up and growth of technology commercialization projects from universities; diversity; and creativity-supportive work environments.