American Sociological Review
76(2) 265–290

DOI: 10.1177/0003122411400056
http://asr.sagepub.com

Changing Workplaces to Reduce Work-Family Conflict: Schedule Control in a White-Collar Organization

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Abstract

Work-family conflicts are common and consequential for employees, their families, and work organizations. Can workplaces be changed to reduce work-family conflict? Previous research has not been able to assess whether workplace policies or initiatives succeed in reducing work-family conflict or increasing work-family fit. Using longitudinal data collected from 608 employees of a white-collar organization before and after a workplace initiative was implemented, we investigate whether the initiative affects work-family conflict and fit, whether schedule control mediates these effects, and whether work demands, including long hours, moderate the initiative's effects on work-family outcomes. Analyses clearly demonstrate that the workplace initiative positively affects the work-family interface, primarily by increasing employees' schedule control. This study points to the importance of schedule control for our understanding of job quality and for management policies and practices.

Keywords

work-family conflict, flexibility, control, workplace, longitudinal

Work-family conflicts are common among workers in the United States and other industrialized nations. Among U.S. men and women, 70 percent report some interference between work and non-work responsibilities (Schieman, Milkie, and Glavin 2009; see also Jacobs and Gerson 2004; Tausig and Fenwick 2001). These conflicts are manifested as time strains, missed work or family activities, and the spillover of stress from work to home or vice versa. Individuals and couples employ a variety of adaptive strategies to reduce work-family conflicts—including one spouse exiting the labor force, one spouse reducing work hours, or spouses working different shifts—but these strategies often reinforce gender inequality because women are more likely to leave jobs or cut back at work (Ammons and Edgell 2007; Becker and Moen 1999; Reynolds 2005; Stone 2007). Changes in work conditions and workplace policies would arguably do more than these individual strategies to reduce work-family conflicts and the inequality associated with these gendered

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responses to work-family dilemmas (Moen and Roehling 2005; Williams 2000).

This study extends recent research on the work side of the work-family interface by investigating whether changes in workplace policies and practices reduce work-family conflict and improve work-family fit.[1] Because previous research relies almost exclusively on cross-sectional data, studies have not demonstrated that work-family conflicts can be reduced by changing work conditions, nor have scholars evaluated which workplace changes are most promising (Kelly et al. 2008). This article more rigorously demonstrates the effects of work conditions by studying changes in a white-collar organization and related changes in employees' experiences of the work-family interface. We investigate schedule control as a key mechanism for managing multiple responsibilities on and off the job. We use longitudinal data from a natural experiment, the implementation of the Results Only Work Environment (ROWE) initiative designed and implemented at the Best Buy Co., Inc. corporate headquarters. Our data include two waves of surveys completed by employees; approximately half the respondents were in departments participating in the workplace initiative, and half were in comparison departments that began ROWE after our study period.

We investigate three research questions. First, does this workplace initiative reduce work-family conflict and improve work-family fit? Second, does the initiative work by increasing schedule control? In other words, does schedule control mediate the relationship between workplace changes and work-family conflict and fit? Third, do workplace changes bring similar benefits to employees with high work demands and to employees with less intense work demands? More broadly, this research examines how workplaces produce—and may be altered to ameliorate—work-family conflicts.

We find clear evidence that workplace initiatives can alter the work environment to help employees manage work and non-work responsibilities. In particular, increasing employees' appraisal of control over their work time is an important mechanism for alleviating work-family conflicts. ROWE reduces employees' sense of work-family conflict and improves work-family fit, and the effects of ROWE on these outcomes are mediated by increased schedule control. The benefits of ROWE and increased schedule control are similar for employees working long hours and for those working fewer hours and for employees reporting high or low job demands.

CHANGING WORKPLACES AND THE ROLE OF SCHEDULE CONTROL

Our research on the effects of workplace initiatives is grounded in previous studies of specific work conditions and the work-family interface. Work-family conflict and fit are associated with the demands placed on employees at work and the resources available to individuals at work, as well as home demands and resources (Bakker and Geurts 2004; Schieman et al. 2009; Voydanoff 2004). Yet because the vast majority of these studies use cross-sectional data (Kelly et al. 2008), scholars have not shown that changes in workplace policies and practices succeed in reducing work-family conflict and improving work-family fit. This is our first research question.

Our second research question examines a specific work-related resource: is schedule control the mechanism through which this workplace initiative affects the work-family interface? It is important to identify the mechanism through which employees benefit from workplace changes because the policies and programs adopted by organizations vary. Knowing how employees benefit from a specific initiative helps to properly target new initiatives, even ones that differ from ROWE. We define schedule control as

employees' sense of latitude or control regarding the timing of their work, the number of hours they work, and the location where they work, which affects their commuting time and total time away from home (see similar definitions in Berg and colleagues [2004] and Kelly and Moen [2007]). In work-family research and in popular discourse, this is often referred to as flexibility (Hill et al. 2008) or flexible work arrangements.[2] We prefer the term *schedule control*, because the broader terms include employers' flexible deployment of labor through contingent or contract work (Barker and Christensen 1998; Kalleberg 2001) and just-in-time staffing (e.g., retail workers sent home when the floor is slow), which is flexible but unpredictable from employees' perspective (Lambert 2008). Additionally, schedule control complements the concept of job control developed by Karasek (Karasek 1979; Karasek and Theorell 1990), which has been linked to employee health, job satisfaction, and organizational commitment. While job control refers to control over how work is done, this construct does not attend to control over when, how much, or where one works. Schedule control turns our attention to work conditions that affect employees' lives off the job by determining their ability to manage work and non-work responsibilities more fluidly and effectively.

Previous research and meta-analytic reviews indicate that employees who report more control over their schedules have less work-family conflict (Byron 2005; Galinsky, Bond, and Friedman 1996; Hammer, Allen, and Grigsby 1997; Kossek, Lautsch, and Eaton 2006; Moen et al. 2008) and better work-life balance (Hill et al. 2001; Tausig and Fenwick 2001). In addition to the ability to decide when they begin and end work, employees' ability to take time off during the workday and to control when they bring work home is negatively associated with work-family conflict (Mennino, Rubin, and Brayfield 2005; Thomas and Ganster 1995; Voydanoff 2004).

While this literature consistently finds relationships between schedule control and work-family conflict and fit, it relies almost entirely on cross-sectional data (but see Jansen and colleagues [2004] for a prospective study of Dutch employees). This is problematic because there is unequal access to schedule control. Professional and managerial employees report greater flexibility and schedule control (Golden 2008; Schieman et al. 2009; Weeden 2005),[3] but they may differ systematically from other workers in ways that affect their work-family conflict and fit, so the relationship between schedule control and work-family conflict may be spurious. Higher-status workers likely have more economic resources (e.g., income to purchase more reliable and more flexible childcare or eldercare), fewer family demands (e.g., fewer children or adult dependents in the home), and more family resources (e.g., a spouse in the household who is not employed or who works part-time). All of these circumstances may minimize work-family conflict and create work-family fit. On the other hand, higher-status workers are likely to work long hours and to be highly engaged in their work—circumstances that may increase work-family conflict and reduce work-family fit.

We improve upon previous research by asking whether organizational changes increase schedule control (including bringing more control to employees who report lower levels of schedule control at baseline) and whether increases in schedule control reduce work-family conflict and increase work-family fit. Our research design allows us to move from examining who has supportive work conditions and whether those conditions are associated with work-family outcomes in cross-sectional data of employees scattered across many organizations, to examining whether and how work environments can be altered to benefit employees who continue to be located in the same job and the same organization.

WORK DEMANDS AND WORK-FAMILY CONFLICT

Work demands, as measured by hours worked, are perhaps the most consistent predictor of work-family conflict (see Batt and Valcour 2003; Berg, Kalleberg, and Appelbaum 2003; Kossek et al. 2006; Thompson and Prottas 2006; Voydanoff 2004). Other work demands associated with work-family conflict include mandatory or unexpected overtime, job pressure and perceived overload, job stress, and psychological job demands such as working fast or having many interruptions (Berg et al. 2003; Byron 2005; Jansen et al. 2003; Schieman et al. 2009). Our third research question asks whether workplace changes, specifically increases in schedule control, benefit employees who experience high work demands. The literature suggests two competing hypotheses.

First, building on Karasek's Job Demands–Job Control model, we might expect that schedule control is particularly useful to employees with high work demands, as indicated by long work hours or high perceived job demands (e.g., working hard, working fast, or interruptions). This model claims that high job control—that is, autonomy and control over how work is done—buffers the effects of high job demands such that employees with high demands and high job control will experience better health and more satisfaction with their work than will employees with high demands and low job control or low demands and high job control (Karasek 1979; Karasek and Theorell 1990). Applying this buffering hypothesis to schedule control, we would expect that employees facing high job demands will find high schedule control especially helpful in managing all they are trying to do.

Second, recent sociological research suggests that schedule control will be less effective for individuals with high job demands. Employees who put in long hours may find that schedule control increases the permeability of work into family and personal life and therefore creates more work-family conflict (Blair-Loy 2009; Chesley 2005). This may be particularly true of professionals and managers who are expected to invest most of their time and energy in their work (Blair-Loy 2003; Williams 2000). In support of this hypothesis, Schieman and colleagues (2009:986) recently found that employees working 50 or more hours per week "report a higher level of interference than those working fewer hours; [and] this association is stronger among individuals with some or full schedule control." They interpret this as evidence that "schedule control may be indicative of 'work that never ends' and a devotion to work that responds to the demands of high status."

GENDER AND WORK-FAMILY CONFLICT

We recognize that workplace changes and increased schedule control may affect employees differently, depending on their gender and parental status, and that subjective reports of work-family conflict are influenced by broader cultural expectations. In particular, expectations of mothers and fathers continue to differ, even for employed parents (Hays 1996; Townsend 2002). Employed mothers may experience greater work-family conflict, given the continued gender differences in time spent in caregiving and household labor (Bianchi et al. 2000) and the cultural expectation that women's devotion to their families requires their availability and intense focus on family needs. Some research finds that fathers are more likely to report having too little time with children—a specific measure of time inadequacy—"due to gender differences in the amount of time spent in paid work and away from children" (Milkie et al. 2004:757). However, consistent with intensive mothering expectations, mothers' well-being suffers more than fathers' when they

feel they do not have enough time with children or a spouse (Nomaguchi, Milkie, and Bianchi 2005). Assessments of gender differences in work-family conflict are complicated by (1) different comparisons in different studies (i.e., men and women or married fathers and married mothers); (2) the fact that women facing the greatest potential conflicts may leave the labor force, selecting themselves out of the risk pool for work-family conflict; and (3) women's concentration in lower-status, lower-paid jobs with fewer resources (e.g., schedule control) for managing work-family conflicts (Moen at al. 2008; Schieman et al. 2009). With this sample of employees from one organization, we cannot resolve these questions but we can investigate whether gendered parental status moderates the relationships between changing work conditions and work-family conflict and fit. This analysis allows us to determine whether mothers, fathers, and male and female non-parents all benefit similarly from this workplace initiative and related increases in schedule control.

THE CASE OF ROWE AT BEST BUY

The ROWE (Results-Only Work Environment) initiative was developed internally and then implemented at the corporate headquarters for Best Buy Co., Inc., a Fortune 500 retail company with approximately 3,500 employees at its headquarters.[4] ROWE differs from more common flexible work arrangements—such as flextime, telecommuting, compressed work weeks, and reduced-hours schedules—in several important ways. Most flexible work arrangements allow a select few employees to deviate from standard work hours and routines with their supervisors' permission (Kelly and Kalev 2006). By contrast, ROWE attempts to shift the organizational culture so that the norm is flexibility regarding when and where employees do their work. The desired work environment is defined as one in which employees and managers can "do whatever they want, whenever they want, as long as the work gets done" (Ressler and Thompson 2008:3). Employees can routinely change when and where they work based on their individual needs and job responsibilities (including a responsibility to coordinate work within the team as needed), without seeking permission from a manager or even notifying one. Creating a Results-Only Work Environment is presented as an ongoing, collective effort to change the organizational culture. ROWE engages employees who prefer to work fairly traditional hours in the office as well as employees who want to work at different times and places. Work groups are described as "a ROWE team" or "in a ROWE," rather than labeling individuals as telecommuters or users of flextime. The focus on collective culture change should reduce the risk that individual employees who work uncommon hours or away from the office will be penalized in performance evaluations—a common concern for most flexible work arrangements.

ROWE begins after an executive decides that a department or a whole division will participate in the initiative.[5] Employees in participating departments attend four sessions, with an additional session for managers, totaling six hours over a period of about three months. The first session orients employees to the ROWE philosophy and the process of change in their teams (see Kelly and colleagues [2010] on the sessions and employees' responses). This is followed by a session that critically examines the current organizational culture and develops a vision of the desired culture. For example, in this session, employees role-play by sharing comments that arise from the current culture (e.g., "Just getting in?" "Your kid is sick again?") and practice responding in ways that do not reinforce old expectations about time norms (e.g., "Is there something you need?"). In the third session, employees are prompted to clarify the outcomes (i.e., the

results) they are tasked with and to identify low-value activities that do not contribute to the team's performance. Employees are encouraged to identify strategies for meeting business goals that will simultaneously increase their control over their work time. For example, some teams began cross-training so they could rotate working off-site and know that any questions could be handled by co-workers. Other teams began sending one or two representatives to meetings in other departments rather than having everyone attend. A final session brings together employees from multiple teams to brainstorm about problems they have encountered and to publicize new practices that are working well.

This participatory initiative is both highly scripted and highly interactive, with employees discussing their particular concerns and identifying new work practices that are sensible from their perspectives. Scholars have documented that restructuring management practices is a negotiated phenomenon influenced by employees, rather than simply imposed in a top-down manner by management (Vallas 2003:220, 2006). ROWE deliberately engages employees and their managers to reflect on and change organizational culture and practices. This approach is similar in some ways to the work redesign experiments that attempt to improve productivity and gender equity while addressing work-family conflicts (Perlow 1997; Rapoport et al. 2002).

STUDY DESIGN

Because the ROWE initiative would have occurred regardless of whether we studied it, we call this a natural experiment (Bronfenbrenner 1979); it may also be called a quasi-experimental nonequivalent control group design with pretest and posttest (Shadish, Cook, and Campbell 2002). We exploit the phased implementation of ROWE across corporate headquarters by using the teams that began the initiative during the study period as a treatment group and using other departments as a comparison group. We address the limitations of this design, relative to a true experiment, below. We use evidence from a longitudinal survey to compare the experiences of employees in teams beginning ROWE with those in teams that continued to operate under the organization's traditional management practices.

We collected two waves of survey data using a self-administered Web survey. Employees completed the baseline survey in the month before ROWE sessions began and the second survey approximately six months after a department's first ROWE session. Comparison groups were surveyed at parallel times. We drew the sample from non-contingent employees working in 10 business units (or divisions, using our hierarchy labels) at the Best Buy Co, Inc. corporate headquarters. Executives from each division notified employees in their units that university researchers would soon e-mail them directly. Using e-mail addresses provided by the firm, the research team invited employees to participate in the survey and provided a unique user code to each employee. This invitation described the study as an investigation of "how your work environment affects your effectiveness at work, your health and well-being, and your personal life." The invitation and consent did not mention ROWE and made it clear that the survey was designed, implemented, and analyzed by university researchers. Employees were assured that no individual or identifying information would be shared with the organization. Employees had three to four weeks to complete the Web survey (which required about 45 minutes) and were sent e-mail reminders with their unique user code. Participants were offered a $20 gift card that could be redeemed at either a chain of coffee shops or a chain of movie theaters.

Wave 1 of the survey had an 80 percent response rate; 92 percent of Wave 1 respondents also completed Wave 2. Response rates are similar for employees in the ROWE and the comparison departments, with Wave 1

response rates of 78 and 81 percent, respectively, and retention rates of 93 and 90 percent, respectively. Using human resources data on the population of non-contingent employees in the sampled departments, we examine potential response bias. Respondents are significantly younger than non-respondents, with less tenure and lower incomes. Executives (i.e., directors, vice-presidents, and senior vice-presidents) were significantly less likely to participate. Women were more likely than men to complete the first survey. All analyses are done on an analytic sample that is limited to respondents who completed both survey waves and have non-missing information on all independent variables, for a total of 608 employees.[6] Analyses not shown here reveal no substantive differences between this analytic sample and the sample that completed both survey waves. Among the participants, 302 were in departments undergoing ROWE, and 306 were in comparison departments.

The average age of these white-collar respondents is 32 years. They work an average of 48.15 hours per week (with 41 percent working at least 50 hours). Mean organizational tenure is 4.31 years. Of our respondents, 86 percent have a college degree or more, and 33 percent are in a managerial position (i.e., supervise at least one person). Among our sample, 91.5 percent are white ($n = 551$), 5 percent are Asian ($n = 30$), 2 percent are African American ($n = 12$), and 2.5 percent are other races. Fifty percent of the respondents are female, 69 percent are married or cohabiting, 35 percent have at least one child under age 18 at home, and 12 percent care for an adult relative (usually a parent). Because this sample clearly represents a young, educated, middle-class, Midwestern population, additional research is needed to determine whether ROWE or similar workplace changes would produce similar effects in a more diverse sample of workers.

There are several limitations of this design. Because this is not a true experiment with groups randomized to ROWE, we address potential selection bias below. Contamination is a concern because there is likely some interaction between employees in ROWE and employees in traditional departments. Any contamination between different departments would result in greater similarity between the two groups in our measured outcomes and create a conservative test of the hypothesized effects. We recognize the possibility of treatment misidentification (particularly a Hawthorne effect) in which participation in the study influences individuals' responses. As detailed earlier, we reduced this possibility by not mentioning ROWE in the context of the survey. We are reassured that treatment misidentification is not a persistent problem in our data because we find that many of our measures of interest are not different between the two groups at either wave (null results available from the authors on request). Finally, we are sensitive to the possibility of other changes in the organizational setting that might affect one group more than the other, a threat to validity that is often called "history" (Shadish et al. 2002). Although there were other changes in the organization during the study period—including a round of layoffs, training about lean management, and new diversity initiatives—there is no evidence of differential exposure to these changes.

Because six months is a rather brief period to assess these changes, the significance and magnitude of our findings could change in either direction in follow-up studies. The fact that human resources staff are charged with continuing to implement and monitor ROWE, and ROWE is incorporated in new employees' training, suggests the initiative continues to be important within this site. However, research on the longer-term impacts of this initiative or increased schedule control might reveal negative effects, such as reduced promotion rates or slower wage growth, that offset the improvements in work-family conflict and fit experienced by employees. Unfortunately, we are unable

to continue gathering data in this site because of time and funding constraints.

An additional limitation of this study is that ROWE, and thus our study, is limited to employees at corporate headquarters; there are no data on any effects of ROWE for contingent workers at this site, nor any indication of how the initiative might affect retail workers employed by Best Buy. Further research on the effects of increased schedule control for a more diverse sample of workers, including low-wage and contingent workers, is clearly needed.

MEASURES

Table 1 presents descriptive statistics for the dependent and independent variables at Wave 1 and Wave 2 for the full sample, the ROWE sample, and the comparison sample. We analyze several established measures that capture employees' perceptions of work-family strains or fit.[7] The work-to-family conflict scale captures primarily time strains (Netemeyer et al. 1996), while negative spillover from work to family emphasizes the emotional transmission of stress and energy depletion (Grzywacz and Marks 2000). We measure work-family fit by a time adequacy scale assessing employees' sense of having enough time to pursue a variety of personal and family activities (Van Horn, Bellis, and Snyder 2001) and by the work-schedule fit scale that asks how well work schedules are working for employees and their families (Barnett et al. 1999). Schedule control measures employees' ability to decide about the time and timing of their work and is modified from Thomas and Ganster (1995). Previous research (e.g., Schieman et al. 2009; Tausig and Fenwick 2001) has relied on a single item to measure schedule control. Our seven-item scale includes several questions about work time and one item about control over where work is done; analyses are robust to omitting the question about control over work location. For all scales, higher values indicate higher levels of the construct. Detailed information on the scales is provided in Tables S-A and S-B in the online supplement (http://asr.sagepub.com/supplemental).

We code employees as part of the ROWE group if they reported (in the Wave 2 survey) attending any of the ROWE training sessions and they were currently assigned to a department that participated in the initiative. We analyze different effects by gender and parental responsibilities by comparing women with one or more children at home, women without children at home, and men with one or more children at home to the reference category of men without children at home. The "children at home" categories capture women and men actively caring for children age 18 years or younger, but not parents of non-residential or grown children.[8] We also include a categorical measure of age. Because our analysis investigates workplace changes, it is important to include other changes in respondents' lives in the models. We use a dummy variable indicating whether respondents answered yes, at Wave 2, to any of a list of changes in their personal lives experienced between survey waves (e.g., moving, birth of a child, or divorcing). We also include a variable indicating whether respondents changed jobs within the organization between surveys.

Because ROWE and comparison groups differ on certain measures at Wave 1 (see Table 1), we include these measures in our models: whether a respondent's job is a salaried position (i.e., exempt from Fair Labor Standards Act) or an hourly position, tenure in years, and a variable distinguishing employees with no supervisory duties from managers and from senior managers, directors, and officers. An eight-level categorical variable captures household income, with 1 indicating less than $25,000, the mean category of 4 indicating $75,000 to $99,999, and 8 indicating $250,000 or more.

Our analysis of schedule control also includes measures of job demands and job control (Karasek 1979; Karasek and Theorell

Table 1. Descriptive Statistics of Dependent and Independent Variables in Wave 1 and Wave 2

	Wave 1							Wave 2						
	Full Sample		ROWE		Non-ROWE			Full Sample		ROWE		Non-ROWE		
Variable	Mean or %	SD	Mean or %	SD	Mean or %	SD	Δ R–N	Mean or %	SD	Mean or %	SD	Mean or %	SD	Δ R–N
Dependent Variables														
Schedule Control	3.222	(.736)	3.411	(.731)	3.035	(.693)	.376***	3.422	(.825)	3.733	.737	3.116	(.793)	.616***
Change in Schedule Control								.200	(.702)	.321	.742	.081	(.638)	.240***
Work-Family Conflict	3.145	(.961)	3.194	(.969)	3.097	(.952)	.097	2.983	(.957)	2.920	.944	3.046	(.966)	−.127
Negative Work-Family Spillover	2.916	(.651)	2.994	(.667)	2.838	(.626)	.157**	2.879	(.647)	2.875	.640	2.882	(.654)	−.007
Work-Schedule Fit	5.279	(1.285)	5.233	(1.287)	5.325	(1.282)	−.092	5.317	(1.290)	5.570	1.203	5.067	(1.326)	.503***
Time Adequacy	5.083	(1.902)	4.973	(1.959)	5.192	(1.841)	−.219	5.232	(1.873)	5.337	1.939	5.127	(1.802)	.210
Personal and Family Characteristics														
Women with Children at Home	16.9		21.5		12.4		9.1**							
Women without Children	32.4		27.2		37.6		−10.4**							
Men with Children at Home	18.4		20.2		16.7		3.5							
Men without Children	32.2		31.1		33.3		−2.2							
Age (percent)														
20 to 29 Years	45.6		36.4		54.6		−18.2***							
30 to 39 Years	39.3		44.0		34.6		9.4*							
40 to 60 Years	15.1		19.5		10.8		8.8**							
Job Characteristics														
Percent Exempt	95.4		97.7		93.1		4.5**							
Income	4.202	(1.517)	4.348	(1.484)	4.059	(1.537)	.289*							
Tenure	4.306	(3.198)	4.716	(3.303)	3.902	(3.042)	.814**							
Job Level														
Non-supervisory Employee	67.3		61.9		72.5		−10.6**							
Manager	19.4		20.5		18.3		2.2							
Senior Manager and Up	13.3		17.5		9.2		8.4**							

(continued)

Table 1. *(continued)*

	Wave 1							Wave 2						
	Full Sample		ROWE		Non-ROWE			Full Sample		ROWE		Non-ROWE		
Variable	Mean or %	SD	Mean or %	SD	Mean or %	SD	Δ R–N	Mean or %	SD	Mean or %	SD	Mean or %	SD	Δ R–N
Competing Explanations and Changes														
Total Hours	48.151	(6.807)	47.977	(7.045)	48.324	(6.570)	−.347							
Job Demands	2.949	(.498)	2.989	(.487)	2.910	(.506)	.080							
Decision Authority	2.913	(.518)	2.922	(.525)	2.903	(.512)	.019							
Skill Discretion	2.921	(.456)	2.975	(.434)	2.866	(.470)	.109**							
Manager Support	3.543	(.914)	3.507	(.941)	3.579	(.887)	−.072							
Supportive Organizational Culture	3.403	(.622)	3.342	(.622)	3.464	(.616)	−.122*							
Life Change within Six Months								16.0		12.9		19.0		−6.0*
Job Change within Six Months								13.3		10.9		15.7		−4.8

Note: Total $N = 608$; ROWE $N = 302$; Non-ROWE $N = 306$. Δ R–N = difference between ROWE and non-ROWE.
*$p < .05$; ** $p < .01$; *** $p < .001$ (two-tailed tests).

1990). We expect employees with more job control (i.e., control over how they do their job) to have more control over their work time, because, in traditional work environments, flexible schedules and telework options are more likely to be available to individuals in higher-status occupations (Batt and Valcour 2003; Swanberg, Pitt-Catsouphes, and Drescher-Burke 2005). Job control measures include decision authority (i.e., autonomy over what happens on the job and how work is performed) and skill discretion (i.e., breadth of skills required) (Karasek 1979). We measure psychological job demands with items from Belkic and colleagues (2004), Karasek (1985), and Siegrist and colleagues (2004). We measure hours worked with a question asking "How many hours a week do you usually work at your Best Buy job? Please include all hours worked at all locations."

To investigate alternative explanations regarding which work conditions affect work-family conflict, our analysis also incorporates measures of support from one's supervisor or manager and perceived organizational support for family and personal life. Previous research shows that employees with more supportive supervisors report less work-family conflict, as do employees who view their organizations as more family-supportive (Allen 2001; Mennino et al. 2005; Thompson, Beauvais, and Lyness 1999). We measure manager support with four questions that ask respondents how supportive their manager is of their work and career development. Respondents evaluate whether the organizational culture is supportive of families by responding with nine statements about "the philosophy of Best Buy" such as "employees who take time off to attend to personal matters are not committed to their work" (Allen 2001).

ANALYSIS

We use ordinary least squares regression with a lagged dependent variable to investigate the effects of ROWE on employees' experiences of work-family conflict and fit in Wave 2 and the potential mediating role of schedule control. We include the Wave 1 measure of the dependent variable to account for Wave 1 differences in the dependent variables, for persistent heterogeneity and serial correlation between waves, and to describe the effects of changes in the work environment between waves. Our findings about the effects of ROWE and schedule control are consistent across alternative modeling strategies, as outlined below. The lagged dependent variable models are consistent with our theoretical expectations regarding ROWE's impact on schedule control and work-family conflict, allow the use of time invariant measures, and allow us to estimate level and change effects (Johnson 2005).

In these models, we first document the effect of ROWE on work-family outcomes in a basic model adjusting only for the lagged dependent variable; we then test whether changes in schedule control mediate the effects of ROWE on the work-family interface. Baron and Kenny (1986:1173) define a mediating variable as "the generative mechanism through which the focal independent variable is able to influence the dependent variable of interest." As recommended by Judd and Kenny (1981), we estimate a series of nested regression models to test for mediation effects: (1) regressing the mediator (i.e., schedule control) on the independent variables (particularly ROWE); (2) regressing the dependent variable (i.e., work-family outcomes) on the independent variables (ROWE); and (3) regressing the dependent variable (i.e., work-family outcomes) on independent (ROWE) and mediator (schedule control) variables. We report key models in Tables 2 and 3.

We calculate Sobel test statistics for each nested regression to test whether the mediation pathways are statistically significant (MacKinnon and Dwyer 1993; Sobel 1982). A significant Sobel test indicates that the indirect effect of the independent variable on the dependent variable through the mediator variable is significant. We also present the percentage of

the total effect of ROWE that is mediated by inclusion of the variable capturing change in schedule control. All regressions that test for the mediating effects of change in schedule control by Wave 2 also include the measure of schedule control in Wave 1, because the ROWE and the comparison group differ in schedule control at baseline (see Table 1); this also allows us to estimate level and change effects. We present alternative mediation pathways (through changes in organizational supportive culture and manager support, as suggested by the work-family literature) in the online supplement.

Diagnostics investigating violations of the assumption of a linear relationship between the independent and dependent variables find no evidence of a nonlinear pattern in the data. There is no evidence of multicollinearity, omitted variable bias, or heteroscedasticity in models estimating schedule control, work-family conflict, or negative work-family spillover, but there is weak evidence of heteroscedasticity in models estimating work-schedule fit and time adequacy. We therefore use Huber-White sandwich estimators of the standard errors that relax the assumptions of homoscedasticity and a normally distributed error variance. Finally, we remove from each model cases with extreme values that might unduly influence the results; at most, five cases are removed. Removing these cases does not alter the magnitude or significance of any of our focal variables, but analysis suggests these extreme values are biasing estimates of some individual and job characteristics used as controls. The results of these diagnostic tests lead us to believe that our models are producing consistent, efficient, and robust estimates.

FINDINGS

Improving the Work-Family Interface by Increasing Schedule Control

Our first research question is whether this workplace initiative affects employees' experience of the work-family interface. Table 3 provides initial evidence that ROWE reduces work-family conflict and spillover and improves work-family fit and time adequacy, after controlling for employees' starting points on each of the work-family measures. See the first model for each outcome for the gross effects of ROWE, adjusting only for the lagged dependent variable. The ROWE effect is consistently significant and in the expected direction.

To address our second question—whether schedule control mediates the relationship between workplace changes and work-family conflict and fit—we first model the effects of ROWE on schedule control (see Table 2). Previous research has not shown that workplace initiatives succeed in increasing employees' schedule control, both because the research is almost entirely cross-sectional and because common flexible work arrangements may not actually shift control to employees who must negotiate individually with their managers to use these policies (Kelly and Moen 2007; Kelly et al. 2008). This analysis demonstrates that ROWE does increase employees' schedule control. Model 1 in Table 2 also indicates some stability: employees with high levels of schedule control in Wave 1 had high levels of schedule control in Wave 2. Still, net of baseline schedule control, participation in the ROWE initiative increases employees' schedule control by about a half a standard deviation on average. Model 2 adds personal and family characteristics, job characteristics, key work conditions, and indicators of other changes between waves. Managers report a smaller average increase in schedule control by Wave 2 than do non-supervisory employees. Managers may feel that their responsibility to coordinate the work of several employees limits their ability to shift their own hours or to work at home; alternatively, the smaller increase in schedule control may reflect the fact that managers had higher schedule control at baseline (Moen et al. 2008) and thus less room to grow.

Table 2. OLS Regression Results Estimating Schedule Control in Wave 2

	Model 1		Model 2	
Variable	*B*	SE	*B*	SE
Schedule Control in Wave 1	.606***	(.037)	.561***	(.046)
ROWE	.388***	(.054)	.396***	(.090)
Women with Children at Home			.068	(.125)
Women without Children			.026	(.086)
Men with Children at Home			.246*	(.112)
Age 30 to 39 Years			.066	(.070)
Age 40 to 60 Years			.000	(.088)
Exempt			−.093	(.132)
Income			.024	(.023)
Tenure			.016	(.009)
Manager			−.196**	(.074)
Senior Manager and Up			−.090	(.095)
Total Hours			−.009	(.004)
Job Demands			−.074	(.059)
Decision Authority			.108	(.063)
Skill Discretion			.015	(.076)
Life Change within Six Months			.018	(.067)
Job Change within Six Months			−.002	(.074)
Women with Children x ROWE			.017	(.157)
Women without Children x ROWE			.151	(.129)
Men with Children x ROWE			−.324*	(.146)
Constant	1.277***	(.117)	1.518***	.299
N	608		608	
R-squared	.413		.447	

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

We also investigate whether there are differential effects by gender or parental status. Using Model 2 of Table 2, we calculate predicted values of schedule control for ROWE participants and employees in traditional departments. Predicted values of schedule control are significantly different for mothers (3.65 for mothers in ROWE versus 3.24 for mothers in traditional departments), for women without children (3.74 versus 3.17), and for men without children (3.56 versus 3.19). Schedule control levels are similar for fathers in ROWE departments and the comparison group. Additional analyses reveal that men with children at home have the highest baseline level schedule control, and that ROWE increases schedule control more for employees with lower baseline levels. In summary, ROWE increases schedule control, with men with children at home—who had high schedule control to begin with—benefiting less than other groups.

Using nested models, we investigate whether ROWE improves the work-family interface by changing schedule control. After estimating the gross effects of ROWE (including only the lagged dependent variable and ROWE), we add change in schedule control (as a potential mediating variable) and baseline schedule control as a control variable (because the groups differ on schedule control at Wave 1). This allows us to isolate the mediation related to schedule control specifically. We next add demographic measures, life and job changes in the past six months, and manager support and family-supportive organizational culture. Table 3 presents the first model and

Table 3. *OLS Regression Results Estimating the Work-Family Interface in Wave 2*

	Work-Family Conflict in Wave 2		Negative Work-Family Spillover in Wave 2		Work-Schedule Fit in Wave 2		Time Adequacy in Wave 2	
Variable	*B*	*B*	*B*	*B*	*B*	*B*	*B*	*B*
Lagged Dependent Variable	.651***	.526***	.641***	.567***	.556***	.450***	.685***	.603***
	(.030)	(.037)	(.034)	(.034)	(.040)	(.039)	(.028)	(.031)
ROWE	−.220***	−.056	−.098*	.012	.540***	.102	.360***	.050
	(.060)	(.061)	(.039)	(.042)	(.085)	(.082)	(.109)	(.110)
Schedule Control Change		−.465***		−.229***		.831***		.733***
		(.041)		(.029)		(.065)		(.085)
Schedule Control in Wave 1		−.282***		−.148***		.648***		.514***
		(.048)		(.033)		(.069)		(.087)
Women with Children at Home		−.054		−.0.21		−.094		−.177
		(.087)		(.061)		(.115)		(.172)
Women without Children		−.117		.027		−.106		.237
		(.067)		(.047)		(.091)		(.129)
Men with Children at Home		.002		−.093		−.084		−.153
		(.086)		(.059)		(.110)		(.162)
Age 30 to 39 Years		.123		.021		−.075		−.182
		(.069)		(.048)		(.096)		(.132)
Age 40 to 60 Years		.045		.050		−.219		−.256
		(.086)		(.065)		(.128)		(.182)
Exempt		−.177		.058		.409*		.169
		(.114)		(.088)		(.165)		(.204)
Income		−.025		.030*		−.005		.017
		(.021)		(.015)		(.030)		(.042)
Tenure		.000		.002		−.021		−.022
		(.009)		(.006)		(.013)		(.019)
Manager		.153		.159**		−.085		−.038
		(.080)		(.054)		(.110)		(.145)
Senior Manager and Up		.269*		.168*		.195		−.069
		(.097)		(.067)		(.134)		(.200)

(continued)

Table 3. *(continued)*

Variable	Work-Family Conflict in Wave 2		Negative Work-Family Spillover in Wave 2		Work-Schedule Fit in Wave 2		Time Adequacy in Wave 2	
	B	*B*	*B*	*B*	*B*	*B*	*B*	*B*
Life Change within Six Months		.037		.076		−.235*		−.311*
		(.079)		(.053)		(.102)		(.141)
Job Change within Six Months		.084		.012		−.268*		−.464***
		(.084)		(.060)		(.108)		(.141)
Manager Support		−.051		.007		−.036		−.076
		(.030)		(.022)		(.046)		(.058)
Supportive Organizational Culture		−.138**		−.110**		−.003		.162
		(.049)		(.036)		(.069)		(.096)
Constant	1.043***	3.029***	1.056***	2.130***	2.105***	1.046***	1.562***	.282
	(.099)	(.294)	(.099)	(.202)	(.236)	(.326)	(.161)	(.476)
N	590	590	586	586	599	599	596	596
R-squared	.432	.562	.429	.581	.341	.544	.491	.581
Sobel Test for Mediation		−.188***		.100***		.338***		.312***
		(.031)		(.019)		(.051)		(.051)
Percent of Total Effect that is Mediated		77.1		113.3		76.7		86.2

Note: Standard errors in parentheses.
*$p < .05$; ** $p < .01$; *** $p < .001$ (two-tailed tests).

the full model, with the Sobel test for mediation and the percent of the total effect that is mediated to assess the strength and significance of change in schedule control as a mediator.

There is a clear and consistent pattern for the models predicting work-family conflict, negative work-family spillover, work-schedule fit, and time adequacy at Wave 2. The lagged dependent variable in Wave 1 and ROWE are always significant in the first models; ROWE decreases negative work-family spillover and work-family conflict and increases work-schedule fit and time adequacy by Wave 2, controlling for employees' starting points on each of the dependent values in Wave 1. However, when we add only schedule control measures (in an intermediate step not shown here), ROWE becomes nonsignificant. Sobel tests for mediation are always significant, and the percent of the total effect that is mediated is very high for all outcome variables, indicating that changes in schedule control completely mediate the effect of ROWE on these measures of the work-family interface.

The magnitude of the effect of changes in schedule control varies but is generally large. On average and controlling for all variables in the full models in Table 3, an increase of one standard deviation in schedule control between waves leads to a half a standard deviation decrease in work-family conflict and a half a standard deviation increase in work-schedule fit in Wave 2. An increase of one standard deviation in schedule control yields a quarter of a standard deviation decrease in negative work-family spillover in Wave 2 and a similarly sized increase in time adequacy. Effects are larger for outcomes that more directly measure the relationship between work and family time (i.e., the work-to-family conflict scale and work-schedule fit), as compared to the spillover scale that focuses on the transmission of emotions across domains and the time adequacy scale that captures a broader range of personal goals. We also estimate models with interactions between gender/parental status and ROWE and schedule control (not shown here); none are significant. Recall that ROWE produces less change in schedule control for men with children, but a given change in schedule control has similar effects on work-family conflict and fit across gender/parental status categories.

The full models in Table 3 also adjust for personal and job characteristics that differ for the ROWE and comparison groups at baseline and consider the influence of life changes, manager support, and a family-supportive organizational culture. Few of these variables are significant, and they have only a minimal effect on the coefficients for change in schedule control, the mediation tests, or the fit of the models. Managers report higher work-family conflict and negative work-family spillover in Wave 2 than do non-supervisory employees. Employees with higher household incomes also report higher work-family spillover in Wave 2. Employees who rate the organization as more supportive of family are more likely to see decreases in work-family conflict and spillover. Exempt employees report significantly better work-schedule fit, even net of schedule control in Wave 1 and changes in schedule control. Job changes between waves are associated with decreases in work-schedule fit and time adequacy (Reynolds 2005), and respondents who had changes in their personal lives report decreases in time adequacy.

Work Demands as a Moderator

Next, we address the question of whether this workplace initiative brings similar benefits to employees with high work demands (as indicated by long work hours or psychological demands) and those with less intense work demands. Extending the Job Demands–Job Control model developed by Karasek

(1979; Karasek and Theorell 1990) to schedule control suggests that control over the time and timing of work should help employees manage the effects of high job demands. High schedule control may buffer the effects of high job demands on work-family conflict, for example. However, recent research on the pernicious effects of permeable work points to the difficulty in limiting or bounding one's work if demands and flexibility regarding when and where work is performed are both high (Blair-Loy 2009; Schieman et al. 2009).

When interactions of job demands and ROWE are added to the full models (see Table 4), there is no evidence that ROWE has a differential effect on schedule control for employees above and below the mean level of job demands or for those who work more or less than 50 hours per week. Similarly, when interactions of demands and change in schedule control are added to the models of work-family outcomes (see Table 4), there is no evidence that changes in schedule control have a differential effect on work-family outcomes for employees above and below the mean level of job demands or for those who work more or less than 50 hours per week. Employees with high job demands and employees with long work hours report greater work-family conflict, net of all else, but none of the interactions between demands and change in schedule control are significant. To summarize, ROWE increases schedule control for employees regardless of work demands, and increased schedule control results in less work-family conflict and better work-family fit among employees with the highest work demands and those with lower work demands.[9]

Additional Analyses

Previous research on the work-family interface shows that employees who view their organizations as more supportive of family and personal life report less work-family conflict, as do employees with more supportive supervisors (Allen 2001; Hammer et al. 2011; Mennino et al. 2005; Thompson et al. 1999). It is possible that increases in support from the organization or a manager may mediate the pathway between ROWE and work-family outcomes. As Table S-C in the online supplement shows, change in schedule control is by far the strongest mediator: coefficients for ROWE become nonsignificant when change in schedule control is added to the models, the percent of effect mediated is large, and the Sobel test statistics are significant. By contrast, the coefficient for ROWE stays significant when changes in organizational supportive culture or manager support are added to the models, the Sobel test statistics are weak (barely significant for organizational supportive culture and nonsignificant for manager support), and the percent of total effect that is mediated is never above 25 percent.

Our findings are robust to alternative specifications, including multilevel models, change score models, models adjusting for serial correlation, and treatment effect models. We present these models in the online supplement but summarize them briefly here. Because we have data on employees nested in the organizational hierarchy, we calculate the intraclass correlation coefficient (ICC) for outcomes at the team, department, and division levels to see whether multilevel models are warranted (see Table S-D in the online supplement). There is no indication of variation between groups (at any level) for any of the work-family outcomes. Based on significant ICCs for schedule control, we perform a simple multilevel analysis at team and department levels. The findings are very similar to the tables presented here earlier, and the primary source of group-level clustering in schedule control is the fact of being in a ROWE group. The effect of ROWE on schedule control does not vary significantly across teams or departments.

Table 4. Summary Table Examining Differential ROWE Effects on Schedule Control and Differential Schedule Control Effects on the Work-Family Interface for High Demand Workers

	Schedule Control in Wave 2			Work-Family Conflict in Wave 2		Negative Work-Family Spillover in Wave 2		Work-Schedule Fit in Wave 2		Time Adequacy in Wave 2	
	Job Demands	Long Hours (50 +)		Job Demands Interaction	Long Hours (50+) Interaction	Job Demands Interaction	Long Hours (50+) Interaction	Job Demands Interaction	Long Hours (50+) Interaction	Job Demands Interaction	Work Hours (50+) Interaction
Variable	*B*	*B*	Variable	*B*	*B*	*B*	*B*	*B*	*B*	*B*	*B*
ROWE	.435***	.467***	ROWE	−.066	−.047	.004	.014	.115	.093	.054	.040
Works 50+ Hours	−.091	.012	Schedule Control Change	−.449***	−.451***	−.201***	−.220***	.807***	.877***	.860***	.714***
Job Demands above Mean	.017	−.042	Schedule Control in Wave 1	−.283***	−.284***	−.142***	−.146***	.642***	.649***	.513***	.509***
ROWE x Job Demands above Mean	−.108		Job Demands above Mean	.158*		.113**		−.176*		−.142	
ROWE x Work 50+ Hours		−.209	Schedule Control Change x Job Demands	−.032		−.059		.043		−.290	
Constant	.885***	.895***	High Work Hours (50+)		.142*		.051		−.011		−.193
			Schedule Control Change x High Work Hours		−.024		−.019		−.120		.028
			Constant	3.090***	3.068***	2.143***	2.121***	1.173***	1.058***	.420	.399
N	608	608	*N*	590	590	586	586	599	599	596	596
R-squared	.436	.439	*R*-squared	.567	.566	.525	.520	.548	.545	.586	.583

Note: The following variables are in the models but are not shown to save space: the lagged dependent variable, gender/parental status, age, exempt, income, tenure, managerial status, and life/job changes. Decision authority and skill description are not shown in the schedule control models, and manager support and organizational supportive culture are not shown in the work-family interface models. Finally, standard errors are not shown in order to save space. Full tables are available from the authors on request.

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

Selection into ROWE may bias our estimates of the effects of the initiative. Individual employees cannot choose whether to begin ROWE; senior executives decide whether departments or whole divisions participate in ROWE. Nonetheless, it is plausible that selection processes affected which units moved ahead quickly with ROWE and which waited for later implementation. Based on previous research on managers' support of flexible work options (Blair-Loy and Wharton 2002), we expect that executives may be drawn to ROWE based on their personal characteristics or their sense of employees' needs. Treatment effects models (see Table S-E in the online supplement; Gelman 2004; Heckman 1979) that first estimate the likelihood of ROWE participation reveal that departments are more likely to participate in ROWE during the study period if they are headed by female executives, by older vice presidents, or by vice presidents with less organizational tenure. Departments are also more likely to move into ROWE during the study period if they have more women, higher average job demands, or higher average schedule control at baseline (see Table S-E in the online supplement).[10] There is no evidence, however, that selection into ROWE biases our central analysis of the effects of ROWE and schedule control on work-family conflict or fit. The Rho and Wald tests that indicate the correlations of the residuals in the two equations are not significant, except for the model for work-schedule fit. Even in that model, we find no differences in the significance or direction of coefficients for ROWE, schedule control, or change in schedule control, and estimates for these focal variables are nearly identical to the coefficients in Tables 2 and 3. We conclude that there is no evidence that selection into ROWE biases the results of our models.

An alternative to the lagged dependent variable model is a first differences strategy that models the change in outcomes on changes in independent variables (Johnson 2005), fixing effects on unmeasured differences over time and eliminating potential bias caused by measurement error or differential selection into ROWE (see Table S-F in the online supplement).[11] Although results suggest that the effects of ROWE on schedule control and on work-family outcomes are substantively identical to findings in the earlier models, we cannot include time invariant measures such as baseline schedule control in these models. We prefer the analysis presented here because we know that changes in schedule control between waves vary by baseline schedule control.

Another alternative analytic strategy is to use feasible generalized least squares (FGLS) with an AR(1) error correction to account for potential serial correlation. Comparing FGLS regressions with an AR(1) error correction with our presented models, the models in Tables 2 and 3 are a better fit to the data and explain a greater percentage of the variance in the dependent variable. Moreover, in FGLS regressions with the AR(1) correction and the Wave 1 dependent variable, the Rho coefficient estimates at zero, indicating that the Wave 1 dependent variable fully accounts for serial correlation in these models.

CONCLUSIONS

Many U.S. workers experience work-family conflicts, and many organizations have adopted flexible work arrangements with the stated goal of promoting better "balance" between work and personal life. Yet research has not been able to demonstrate whether new workplace policies or programs actually change employees' experience of work-family conflict or fit, nor have studies established whether these initiatives increase employees' sense of flexibility or schedule control. Design limitations—including reliance on cross-sectional data or longitudinal samples that follow individuals as they move across jobs or organizations—mean there are many unanswered questions about the relationship between work conditions and

work-family conflict. We extend recent research on the work conditions associated with work-family conflict and recent attention to schedule control to examine how changes in a white-collar organization affect employees embedded in that setting.

Our longitudinal analysis of employees participating in ROWE and employees in comparison departments in a large white-collar organization reveals that this workplace initiative reduces work-family conflict and improves work-family fit, after accounting for baseline levels of the dependent variables, personal job characteristics, and other work resources such as a supportive manager and organizational culture. Additionally, our results clearly demonstrate that ROWE increases employees' sense of schedule control and that the ROWE effect on work-family conflict and fit is fully mediated by increases in schedule control. Effects of this initiative and increases in schedule control are similar among employees regardless of job demands and hours worked. This finding is important in light of fears that flexibility is a double-edged sword; "schedule control may be indicative of 'work that never ends'" (Schieman et al. 2009:986) and, by implication, detrimental to employees' well-being rather than helpful. Recent cross-sectional research finds that employees working very long hours have higher work-nonwork interference than do others, even with high schedule control (Schieman et al. 2009), but our analysis indicates that—even in those situations—increases in schedule control benefit employees by helping them manage the work-family interface. Furthermore, this workplace initiative benefited all employees—mothers, fathers, and men and women without children—who experienced increased schedule control. ROWE significantly increased schedule control, relative to the comparison group, for mothers and for women and men without children at home; fathers in ROWE departments did not differ significantly from fathers in comparison groups, but they had the highest schedule control at baseline. Although managers often assume that only working mothers need flexibility and that their use of flexibility reveals a lesser commitment to work, initiatives that increase schedule control broadly benefit other individuals, too.

We also contribute to scholarship on job quality in two ways. First, we suggest that job quality should encompass both conditions at work and conditions that facilitate employees' ability to manage their dual responsibilities for paid work and family or personal obligations. Scholars have long noted the value of job control (i.e., autonomy regarding how work is done and the chance to use one's skills), but schedule control draws our attention to the ways that work conditions may help minimize work-family conflict. These work conditions are increasingly attractive and important, given the growing number of workers who have responsibilities for children or dependent adults and the decreasing number of households with a spouse at home full-time. Second, we demonstrate that favorable work conditions are not necessarily a function of jobs per se; job quality is not inherent in a given set of tasks or a given position in an organizational hierarchy. The institutionalized expectations—that is, the rules of the game and the everyday practices and assumptions that reinforce those expectations—in an organization can change without changing jobs. Our results show that the same people doing the same jobs, embedded in the same organization and the same families, can and do gain control over the time and timing of their work in ways that benefit them and, by extension, their families and communities. Utilizing a natural experiment in a workplace allows us to isolate the effects of changing specific work conditions for employees. Because workers are selected—by themselves and by employers—into certain jobs and organizations, it is difficult to ascertain the effects of given workplace policies, practices, or conditions if we rely solely on cross-sectional samples of workers in

scattered workplaces. Additional natural experiments, quasi-experiments, or (ideally) experiments are needed to supplement studies of more representative samples of employees scattered across many types of organizations.

In most organizations, flexibility or schedule control is more likely to be available to more privileged workers. Professionals often assume they control their schedules as part of their professional status, and flexible work arrangements are usually allowed as accommodations for a favored few (Blair-Loy and Wharton 2002; Kelly and Kalev 2006). Our analysis illustrates that it is feasible to broaden access to schedule control, at least in a white-collar setting, and thereby relieve work-family conflicts and improve work-family fit for more workers. One implication for management practices is the need to carefully consider whether existing or proposed policies are likely to increase employees' sense of schedule control. For example, many employees may enjoy "summer hours" or condensed work weeks (e.g., all employees in a unit work four 10-hour days and take Friday off), but these practices do not transfer schedule control to employees and so may not reduce work-family conflicts.

The ROWE initiative, with its goal of creating an organizational culture that assumes employees control their own schedules, rather than simply allowing some individuals to make modest changes, clearly benefited this sample of white-collar employees, but questions remain about the likely diffusion of this type of change. For example, are initiatives like this likely to spread during an economic recession?[12] Business advocates often frame flexible work arrangements as a recruitment and retention tool that gives organizations an advantage in tight labor markets. Employees and potential employees are probably less likely to push hard for changes in work conditions when unemployment is high. On the other hand, when wages are stagnant or falling and benefits packages are being cut, some employers look for less expensive ways to signal their concern for employees. Flexibility initiatives may seem a good way to do that. Firms that have downsized employees may also adopt these initiatives as part of an effort to meet the needs of the remaining—and stressed—workers.

A second question is whether workplace initiatives that increase schedule control will diffuse beyond white-collar workplaces to low-wage workers. We contend that schedule control may be manifested differently (e.g., more predictable schedules combined with easier schedule swaps or the ability to refuse overtime) among low-wage workers and service and production workers. Yet we hypothesize—and hope—that customized initiatives that increase schedule control will reduce work-family conflict and improve work-family fit in these settings and for these workers as well.[13] Scholars and advocates are actively investigating whether and what type of workplace initiatives benefit these less privileged workers (Hammer et al. 2011; Lambert 2009; Swanberg et al. 2008; Workplace Flexibility 2010). If access to schedule control increases among white-collar workers but not the less privileged, this would be yet another way work is stratified and stress—with all its consequences for health and family life—is distributed unequally by class.

In summary, this project reminds us that the work environment is malleable. Work-family conflicts and work-family fit depend on the demands that employees have at home, including the number of children and the health status of other family members, as well as the support available to employees at home and in the community. But corporations' institutionalized policies, practices, and expectations regarding work create work-family conflicts, and increasing schedule control can ameliorate the strains felt by employees.

Acknowledgments

We are grateful to Rachel Magennis, Qinlei Huang, Elaine Hernandez, Samantha Ammons, and Kelly Chermack for research assistance, and to Forrest Briscoe,

Jerry Jacobs, Alexandra Kalev, Ross Macmillan, Becky Pettit, and audiences at the 2008 American Sociological Association meetings, the University of Minnesota, the University of Arizona, and the University of Washington for comments on earlier drafts. Finally, we sincerely thank the employees who participated in this research and the managers who facilitated the study.

Funding

This research was conducted as part of the Work, Family and Health Network, which is funded by a cooperative agreement through the National Institute of Child Health and Human Development (Grant # U01HD051256), National Institute on Aging, Office of Behavioral and Science Sciences Research, and National Institute of Occupational Safety and Health. The contents of this publication are solely the responsibility of the authors and do not necessarily represent the official views of these institutes and offices. We are grateful to the Alfred P. Sloan Foundation (2002-6-8), the Minnesota Population Center (HD41023), and the Institute for Advanced Studies, University of Minnesota for additional support.

Notes

1. Scholars have documented that work-family conflict may be bi-directional, such that work interferes with family life and family interferes with work (Frone, Russell, and Cooper 1997; Greenhaus and Beutell 1985; MacDermid 2005). We examine work-to-family conflict because this direction is more common and because we are analyzing the impact of organizational changes, not changes in family life, on employees. We employ a variety of work-family conflict and fit measures, including measures that are relevant to employees without a spouse/partner or children at home. Some measures refer specifically to family but others ask about one's job affecting the effort and energy one can put in "at home" and the transfer of job stress to home (Grzywacz and Marks 2000; Netemeyer, Boles, and McMurrian 1996). Work-family fit refers here to a respondent's appraisal of how well one's schedule is working "for you" and "for your family or personal life" (Barnett, Gareis, and Brennan 1999; cf. Moen, Kelly, and Huang 2008), as well as the assessment of having "enough time" to do a variety of activities.
2. Although organizational policies such as flextime and telecommuting purportedly exist to foster flexibility, the research on this relationship is quite mixed (Batt and Valcour 2003; Kelly and Moen 2007; Thomas and Ganster 1995).
3. Access to schedule control is stratified across and within organizations. Organizations that rely on higher-status workers, such as professionals or managers, are more likely to offer flexible work arrangements (Davis and Kalleberg 2006; Deitch and Huffman 2001). Furthermore, because flexible work policies give supervisors discretion over who can use these arrangements, employees who are viewed as high performers are more likely to be allowed to use them (Kelly and Kalev 2006).
4. ROWE was developed and piloted by two Best Buy employees, Cali Ressler and Jody Thompson, who then established an independent firm promoting ROWE. For more information on ROWE and efforts to implement it in other organizations, see Ressler and Thompson (2008) and http://www.gorowe.com.
5. We use the terms team, department, and division to refer to nested and increasingly larger organizational units.
6. Six hundred fifty-nine respondents completed both survey waves. Within this sample, independent variables averaged seven missing cases, with a maximum of 23 cases (for work hours). Data seem to be missing at random. We created the analytic sample using listwise deletion to ensure that all analyses use a comparable sample.
7. We do not have data on work-family trade-offs, such as missing family events due to work or scaling back at work due to family responsibilities (see Ammons and Edgell 2007; Mennino and Brayfield 2002).
8. An alternative coding that includes non-residential parents of children under 18 years in the "with children" category does not substantively change the results of our analyses.
9. We also ran models separately on the subsamples of employees with higher and lower reported job demands and those who worked more or less than 50 hours per week. Chow tests evaluating the equivalence of slopes in these models indicate that (1) ROWE has less of an effect on schedule control for employees working more than 50 hours per week and (2) changes in schedule control have more of an effect on negative work-to-family spillover and increasing work-schedule fit among employees with job demands above the mean in Wave 1. These findings leave open the possibility of differential effects of workplace initiatives across levels of work demands, particularly the possibility that it is easier to increase schedule control among employees working fewer than 50 hours per week. We concentrate here on the interaction models because previous research suggests one moderator: that workplace initiatives and schedule control, specifically, are differentially beneficial for the work-family interface depending on job demands and hours worked. By contrast, the subsample analysis and Chow tests estimate each independent variable's effect for that group.

10. There is no evidence that the selection equation is strongly related to schedule control or the work-family interface.
11. A related approach is a growth curve model, which would allow us to include time-invariant variables. However, this method assumes growth over time, and there is no theoretical or empirical reason to assume growth in schedule control or work-family conflict or fit over time (particularly during the six-month study period).
12. Analysis of this question is complicated by increased public attention to flexibility initiatives during the recession, including a 2010 White House Forum on Workplace Flexibility.
13. Low-wage workers may manifest work-family conflict differently (e.g., inadequate pay to meet family needs due to unpredictable schedules or job loss when family crises lead to unexpected absences), so measures of work-family conflict may need to be broadened in studies of these populations.

References

Allen, Tammy D. 2001. "Family-Supportive Work Environments: The Role of Organizational Perceptions." *Journal of Vocational Behavior* 58:414–35.

Ammons, Samantha and Penny Edgell. 2007. "Religion and Work-Family Tradeoffs." *Journal of Family Issues* 28:794–826.

Bakker, Arnold B. and Sabine A. E. Geurts. 2004. "Toward a Dual-Process Model of Work-Home Interference." *Work and Occupations* 31:345–66.

Barker, Kathleen and Kathleen Christensen. 1998. *Contingent Work: American Employment Relations in Transition*. Ithaca: Cornell University Press.

Barnett, Rosalind Chait, Karen C. Gareis, and Robert T. Brennan. 1999. "Fit as a Mediator of the Relationship between Work Hours and Burnout." *Journal of Occupational Health Psychology* 4:307–317.

Baron, Rueben M. and David A. Kenny. 1986. "The Moderator-Mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic, and Statistical Considerations." *Journal of Personality and Social Psychology* 51:1173–82.

Batt, Rosemary and Monique Valcour. 2003. "Human Resources Practices as Predictors of Work-Family Outcomes and Employee Turnover." *Industrial Relations* 42:189–220.

Becker, Penny Edgell and Phyllis Moen. 1999. "Scaling Back: Dual-Career Couples' Work-Family Strategies." *Journal of Marriage and the Family* 61:995–1007.

Belkic, Karen L., Paul A. Landsbergis, Peter L. Schnall, and Dean Baker. 2004. "Is Job Strain a Major Source of Cardiovascular Disease Risk?" *Scandinavian Journal of Work, Environment & Health* 30:81–83.

Berg, Peter, Eileen Appelbaum, Thomas Bailey, and Arne L. Kalleberg. 2004. "Contesting Time: International Comparisons of Employee Control of Working Time." *Industrial and Labor Relations Review* 57:331–49.

Berg, Peter, Arne L. Kalleberg, and Eileen Appelbaum. 2003. "Balancing Work and Family: The Role of High-Commitment Environments." *Industrial Relations* 42:168–88.

Bianchi, Suzanne M., Melissa A. Milkie, Liana C. Sayer, and John P. Robinson. 2000. "Is Anyone Doing the Housework? Trends in the Gender Division of Household Labor." *Social Forces* 79:191–228.

Blair-Loy, Mary. 2003. *Competing Devotions: Career and Family among Women Executives*. Cambridge: Harvard University Press.

Blair-Loy, Mary. 2009. "Work without End? Scheduling Flexibility and Work-to-Family Conflict among Stockbrokers." *Work and Occupations* 36:279–317.

Blair-Loy, Mary and Amy S. Wharton. 2002. "Employees' Use of Work-Family Policies and the Workplace Social Context." *Social Forces* 80:813–45.

Bronfenbrenner, Urie. 1979. *The Ecology of Human Development: Experiments by Design and Nature*. Cambridge: Harvard University Press.

Byron, Kristin. 2005. "A Meta-Analytic Review of Work–Family Conflict and its Antecedents." *Journal of Vocational Behavior* 67:169–98.

Chesley, Noelle. 2005. "Blurring Boundaries? Linking Technology Use, Spillover, Individual Distress, and Family Satisfaction." *Journal of Marriage and Family* 67:1237–48.

Davis, Amy E. and Arne L. Kalleberg. 2006. "Family-Friendly Organizations? Work and Family Programs in the 1990s." *Work and Occupations* 33:191–223.

Deitch, Cynthia H. and Matt L. Huffman. 2001. "Family-Responsive Benefits and the Two-Tiered Labor Market." Pp. 103–130 in *Working Families: The Transformation of the American Home*, edited by R. Hertz and N. L. Marshall. Berkeley: University of California Press.

Frone, Michael R., Marcia Russell, and M. Lynne Cooper. 1997. "Relation of Work–Family Conflict to Health Outcomes: A Four-Year Longitudinal Study of Employed Parents." *Journal of Occupational Health Psychology* 70:325–35.

Galinsky, Ellen, Justin T. Bond, and Dana E. Friedman. 1996. "The Role of Employers in Addressing the Needs of Employed Parents." *Journal of Social Issues* 52:111–36.

Gelman, Andrew. 2004. "Treatment Effects in Before-After Data." Pp. 195–203 in *Applied Bayesian Modeling and Causal Inference from Incomplete-Data Perspectives*, edited by A. Gelman and X. Meng. San Francisco: Wiley.

Golden, Lonnie. 2008. "Limited Access: Disparities in Flexible Work Schedules and Work-at-Home." *Journal of Family and Economic Issues* 29:86–109.

Greenhaus, Jeffrey H. and Nicholas J. Beutell. 1985. "Sources of Conflict between Work and Family Roles." *The Academy of Management Review* 10:76–88.

Grzywacz, Joseph G. and Nadine F. Marks. 2000. "Family, Work, Work-Family Spillover, and Problem Drinking during Midlife." *Journal of Marriage and Family* 62:336–48.

Hammer, Leslie B., Elizabeth Allen, and Tenora D. Grigsby. 1997. "Work-Family Conflict in Dual-Earner Couples: Within-Individual and Crossover Effects of Work and Family." *Journal of Vocational Behavior* 50:185–203.

Hammer, Leslie B., Ellen Ernst Kossek, Kent Anger, Todd Bodner, and Kristi Zimmerman. 2011. "Clarifying Work-Family Intervention Processes: The Roles of Work-Family Conflict and Family-Supportive Supervisor Behaviors." *Journal of Applied Psychology* 96:134–150.

Hays, Sharon. 1996. *The Cultural Contradictions of Motherhood*. New Haven: Yale University Press.

Heckman, James J. 1979. "Sample Selection Bias as a Specification Error." *Econometrica* 47:153–61.

Hill, E. Jeffrey, Joseph G. Grywacz, Sarah Allen, Victoria L. Blanchard, Christina Matz-Costa, Sandee Shulkin, and Marcie Pitt-Catsouphes. 2008. "Defining and Conceptualizing Workplace Flexibility." *Community, Work, and Family* 11:149–63.

Hill, E. Jeffrey, Alan J. Hawkins, Maria Ferris, and Michelle Weitzman. 2001. "Finding an Extra Day a Week: The Positive Influence of Perceived Job Flexibility on Work and Family Life Balance." *Family Relation* 50:49–58.

Jacobs, Jerry A. and Kathleen Gerson. 2004. *The Time Divide: Work, Family, and Gender Inequality*. Cambridge: Harvard University Press.

Jansen, Nicole W. H., Ijmert Kant, Tage S. Kristensen, and Frans J. N. Nijhuis. 2003. "Antecedents and Consequences of Work-Family Conflict: A Prospective Cohort Study." *Journal of Occupational and Environmental Medicine* 45:479–91.

Jansen, Nicole W. H., Ijmert Kant, Frans J. N. Nijhuis, Gerard M. H. Swaen, and Tage S. Kristensen. 2004. "Impact of Worktime Arrangements on Work-Home Interference among Dutch Employees." *Scandinavian Journal of Work and Environmental Health* 30:139–48.

Johnson, David. 2005. "Two-Wave Panel Analysis: Comparing Statistical Methods for Studying the Effects of Transitions." *Journal of Marriage and Family* 67:1061–1075.

Judd, Charles M. and David A. Kenny. 1981. "Process Analysis: Estimating Mediation in Treatment Evaluations." *Evaluation Review* 5:602–619.

Kalleberg, Arne. 2001. "Organizing Flexibility: The Flexible Firm in the New Century." *British Journal of Industrial Relations* 39:479–504.

Karasek, Robert A. 1979. "Job Demands, Job Decision Latitude, and Mental Strain: Implications for Job Redesign." *Administrative Science Quarterly* 24:285–308.

Karasek, Robert A. 1985. *Job Content Questionnaire and User's Guide*. University of Massachusetts-Lowell, Department of Work Environment.

Karasek, Robert A. and Töres Theorell. 1990. *Healthy Work: Stress, Productivity, and the Reconstruction of Working Life*. New York: Basic Books.

Kelly, Erin L., Samantha Ammons, Kelly Chermack, and Phyllis Moen. 2010. "Gendered Challenge, Gendered Response: Confronting the Ideal Worker Norm within a White-Collar Organization." *Gender & Society* 24:281–303.

Kelly, Erin L. and Alexandra Kalev. 2006. "Managing Flexible Work Arrangements in US Organizations: Formalized Discretion or 'A Right to Ask.'" *Socio-Economic Review* 4:379–416.

Kelly, Erin L., Ellen Ernst Kossek, Leslie B. Hammer, Mary Durham, Jeremy Bray, Kelly Chermack, Lauren A. Murphy, and Dan Kaskubar. 2008. "Getting There from Here: Research on the Effects of Work-Family Initiatives on Work-Family Conflict and Business Outcomes." *The Academy of Management Annals* 2:305–349.

Kelly, Erin L. and Phyllis Moen. 2007. "Rethinking the Clock Work of Work: Why Schedule Control May Pay Off at Work and at Home." *Advances in Developing Human Resources* 11:487–506.

Kossek, Ellen Ernst, Brenda A. Lautsch, and Susan C. Eaton. 2006. "Telecommuting, Control, and Boundary Management: Correlates of Policy Use and Practice, Job Control, and Work–Family Effectiveness." *Journal of Vocational Behavior* 68:347–67.

Lambert, Susan J. 2008. "Passing the Buck: Labor Flexibility Practices that Transfer Risk onto Hourly Workers." *Human Relations* 61:1203–1227.

Lambert, Susan J. 2009. "Making a Difference for Hourly Employees." Pp. 169–96 in *Work-Life Polices that Make a Real Difference for Individuals, Families, and Organizations*, edited by A. Booth and A. Crouter. Washington, DC: Urban Institute Press.

MacDermid, S. 2005. "(Re)Considering Conflict between Work and Family." Pp. 19–40 in *Work and Life Integration*, edited by E. E. Kossek and S. J. Lambert. Mahwah, NJ: Lawrence Erlbaum Associates.

MacKinnon, David P. and James H. Dwyer. 1993. "Estimating Mediated Effects in Prevention Studies." *Evaluation Review* 17:144–58.

Mennino, Sue Falter and April Brayfield. 2002. "Job-Family Trade-Offs: The Multidimensional Effects of Gender." *Work and Occupations* 29:226–56.

Mennino, Sue Falter, Beth A. Rubin, and April Brayfield. 2005. "Home-To-Job and Job-To-Home Spillover: The Impact of Company Policies and Workplace Culture." *Sociological Quarterly* 46:107–123.

Milkie, Melissa A., Marybeth J. Mattingly, Kei M. Nomaguchi, Suzanne M. Bianchi, and John P. Robinson. 2004. "The Time Squeeze: Parental Statuses and Feelings about Time with Children." *Journal of Marriage and Family* 66:739–61.

Moen, Phyllis, Erin L. Kelly, and Qinlei Huang. 2008. "Work, Family and Life-Course Fit: Does Control Over Work Time Matter?" *Journal of Vocational Behavior* 73:414–25.

Moen, Phyllis and Patricia Roehling. 2005. *The Career Mystique: Cracks in the American Dream*. New York: Rowman and Littlefield.

Netemeyer, Richard G., James S. Boles, and Robert C. McMurrian. 1996. "Development and Validation of Work-Family Conflict and Family-Work Conflict Scales." *Journal of Applied Psychology* 81:400–410.

Nomaguchi, Kei M., Melissa A. Milkie, and Suzanne M. Bianchi. 2005. "Time Strains and Psychological Well-Being: Do Dual-Earner Mothers and Fathers Differ?" *Journal of Family Issues* 26:756–92.

Perlow, Leslie A. 1997. *Finding Time: How Corporations, Individuals, and Families Can Benefit from New Work Practices*. Ithaca: Cornell University Press.

Rapoport, Rayna, Lotte Bailyn, Joyce Fletcher, and Bettye H. Pruitt. 2002. *Beyond Work-Family Balance: Advancing Gender Equity and Work Performance*. London: Wiley.

Ressler, Cali and Jody Thompson. 2008. *Why Work Sucks and How to Fix It*. New York: Penguin Group.

Reynolds, Jeremy. 2005. "In the Face of Conflict: Work-Life Adjustments and Desired Work Hour Adjustments." *Journal of Marriage and Family* 67:1313–31.

Schieman, Scott, Melissa Milkie, and Paul Glavin. 2009. "When Work Interferes with Life: The Social Distribution of Work-Nonwork Interference and the Influence of Work-Related Demands and Resources." *American Sociological Review* 74:966–87.

Shadish, William R., Thomas D. Cook, and Donald T. Campbell. 2002. *Experimental and Quasi Experimental Designs for Generalized Causal Inference*. Boston: Houghton Mifflin Company.

Siegrist, Johannes, Dagmar Starke, Tahani Chandola, Isabelle Godin, Michael Marmot, Isabelle Niedhammer, and Richard Peter. 2004. "The Measurement of Effort: Reward Imbalance at Work: European Comparisons." *Social Science & Medicine* 58:1483–99.

Sobel, Michael E. 1982. "Asymptotic Confidence Intervals for Indirect Effects in Structural Equation Models." *Sociological Methodology* 13:290–312.

Stone, Pamela. 2007. *Opting Out? Why Women Really Quit Careers and Head Home*. Berkeley: University of California Press.

Swanberg, Jennifer E., Jacquelyn B. James, Mac Werner, and Sharon P. McKechnie. 2008. "Workplace Flexibility for Hourly Lower-Wage Employees: A Strategic Business Practice within One National Retail Firm." *Psychologist-Manager Journal* 11:5–29.

Swanberg, Jennifer E., Marcie Pitt-Catsouphes, and Krista Drescher-Burke. 2005. "A Question of Justice: Disparities In Employees' Access to Flexible Schedule Arrangements." *Journal of Family Issues* 26:866–95.

Tausig, Mark and Rudy Fenwick. 2001. "Unbinding Time: Alternate Work Schedules and Work–Life Balance." *Journal of Family and Economic Issues* 22:101–119.

Thomas, Linda T. and Daniel C. Ganster. 1995. "Impact of Family-Supportive Work Variables on Work-Family Conflict and Strain: A Control Perspective." *Journal of Applied Psychology* 80:6–15.

Thompson, Cynthia A., Laura L. Beauvais, and Karen S. Lyness. 1999. "When Work-Family Benefits Are Not Enough: The Influence of Work-Family Culture on Benefit Utilization, Organizational Attachment, and Work-Family Conflict." *Journal of Vocational Behavior* 54:392–415.

Thompson, Cynthia A. and David J. Prottas. 2006. "Relationships among Organizational Family Support, Job Autonomy, Perceived Control, and Employee Well-Being." *Journal of Occupational Health Psychology* 11:100–118.

Townsend, Nicholas W. 2002. *The Package Deal: Marriage, Work, and Fatherhood in Men's Lives*. Philadelphia: Temple University Press.

Vallas, Steven P. 2003. "The Adventures of Managerial Hegemony: Teamwork, Ideology, and Worker Resistance." *Social Problems* 50:204–225.

Vallas, Steven P. 2006. "Empowerment Redux: Structure, Agency, and the Remaking of Managerial Authority." *American Journal of Sociology* 111:1677–1717.

Van Horn, Lee M., Jeffrey M. Bellis, and Scott W. Snyder. 2001. "Family Resource Scale Revised: Psychometrics and Validation of a Measure of Family Resources in a Sample of Low-Income Families." *Journal of Psychoeducational Assessment* 19:54–68.

Voydanoff, Patricia. 2004. "The Effects of Work Demands and Resources on Work-to-Family Conflict." *Journal of Marriage and Family* 66:398–412.

Weeden, Kim A. 2005. "Is There a Flexiglass Ceiling? Flexible Work Arrangements and Wages in the United States." *Social Science Research* 34:454–82.

Williams, Joan C. 2000. *Unbending Gender: Why Family and Work Conflict and What to Do About It*. Oxford: Oxford University Press.

Workplace Flexibility. 2010. "Low-Wage Workers." Retrieved June 4, 2010 (http://workplaceflexibility2010.org/index.php/stakeholders/low_wage_workers).

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