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**Demands and Devotion:
Cultural Meanings of Work and Overload among
Women Researchers and Professionals in Science and Technology Industries^{1*}**

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How do cultural meanings influence how people experience work-life demands? Much research, especially quantitative research, on the effects of structural work and family conditions does not account for employees' cultural beliefs about the meaning of work in their lives. This article uses unique survey data to investigate the effects of employee embrace of elements of the "work devotion schema"—a cultural model that valorizes intense career commitment and organizational dedication—on their sense of "overload," an experience that includes feeling exhausted and overloaded by all one's roles, net of actual hours on the paid job and family responsibilities. We argue that by cognitively, morally, and emotionally framing work as a valued end, the work devotion schema reduces feelings of overload. Using a case of senior women researchers and professional service providers in science and technology industries, we find that those who embrace work devotion feel less overloaded than those who reject it, net of

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work and family conditions. However, this effect is curtailed for mothers of young and school-aged children. We end by discussing implications for flexibility stigma and gender inequality.

Key words: work-family conflict, overwork, overload, work devotion schema, women, science and technology, culture.

INTRODUCTION

Feeling overworked, exhausted, and overloaded is pervasive among many workers, including professional women. However, we know little about how *cultural beliefs* about work influence how people interpret these work and family demands. This article argues that people's cultural perspectives on the value and legitimacy of the work and family responsibilities in their lives influence whether their objective work demands (e.g., longer paid work hours, later nights) and family demands (e.g. being the primary caregiving parent) induce feelings of overload.

The experience of overwork is empirically linked but distinct from long hours in one's paid job (Jacobs and Gerson 2004, pp. 5, 67). Since those who juggle caregiving obligations are also more likely to feel overworked (Jacobs and Gerson 2004: 78), we broaden the focus beyond simply wishing to cut down on paid hours (Reynolds 2005) to include feeling overloaded by all one's life roles. Our broader focus encompasses the experience of professional women who, even when they feel overloaded, *may not wish to reduce their paid work hours*, given career dedication or the fear of penalties for part-time employment (Barnett et al. 2009).

Cultural frameworks influence whether workers interpret work demands as reasonable or as burdensome contributions to feelings of overload (Epstein and Kalleberg 2001). Blair-Loy's (2003) qualitative study of women executives found that U.S. firms endorse a cultural model that assumes elite employees will manifest undivided "devotion to work" as a valued end. As an organization-level schema, work devotion is institutionalized in organizational expectations that employees will maximize dedication and minimize time spent on caregiving. At the *individual-level*, employees may or may not personally adhere to this schema, which includes a cognitive acceptance of intensive work demands, a moral identification with one's employer or profession, an emotional investment in the organization's fate, and a sense of inspiration and transcendence from engagement with professional challenges. Some employees embrace this set of cultural understandings, while others reject it (Blair-Loy 2003; Hochschild 1997).

Recent quantitative studies of work-family issues have speculated that cultural schemas such as work devotion (Fox, Fonesca, and Bao 2011; Schieman, Milkie, and Glavin 2009; Wharton, Chivers, and Blair-Loy 2008), “family devotion,” (Bianchi, Robinson, and Milkie 2006), and related cultural models (Greenman 2011) shape the relationships between work and family life, but these studies lack direct measurement and empirical investigation of these cultural understandings.

This article makes several contributions. Although quantitative research has shown the effects of structural work and family demands on feeling overworked or overloaded, it has generally not systematically addressed the cultural meanings of these demands. We develop and test a theoretical argument that workers’ embrace of elements of the “work devotion schema,” the cultural understanding of intensive work as emotionally meaningful and morally worthy, helps alleviate feelings of overload. We examine the effects of elements of work devotion on the sense of overload with a theoretically advantageous—yet virtually unstudied—sample that is likely to experience overload: senior women researchers and professional service providers in science and technology industries. We find that respondents who most closely embrace the elements of the work devotion schema we measure experience less overload compared to those with similar work and family conditions who do not embrace this schema. However, the work devotion schema seems less efficacious in buffering the sense of overload for mothers of young and school-aged children, compared to childfree women and those with grown children. As this finding is net of actual caregiving responsibilities, it may be due to the cultural mandate of “family devotion” (Blair-Loy 2003) which defines caring for children as a woman’s vocation.

We begin by describing our sample and discussing the work-life literatures that motivate our research expectations. Next we present our hypotheses, data, analytic strategy, and variables. Finally, we present our findings, assess a competing explanation, and discuss implications for the experience of overload in these work settings.

We utilize an exemplar case that helps highlight the processes under investigation. Our case is based on a detailed survey of members of “IRIS” (a pseudonym), a professional association composed of predominately senior women who see themselves as part of a single field in a California science and technology cluster. IRIS members are employed in science and technology-related corporate firms, government agencies and universities, as well as service

firms (such as law and venture capital) that serve science and technology organizations. In the data section, we situate our case in a broader context by comparing our respondents to a nationally representative sample of professionals in U.S. science and technology industries, the Scientists and Engineers Statistical Data System.

The value of an exemplar or extreme case is illumination rather than representativeness (Blair-Loy 2003; Kreiner, Hollensbe, and Sheep 2009). Our case brings to light the processes under study: respondents face conditions that are highly conducive to overload. IRIS members work in a regional cluster that is a dense and competitive center of innovation (Cech and Blair-Loy 2010). A crowded field, inter-organizational networks (Whittington, Owen-Smith, and Powell 2008), and firms' tendency to measure their success against the performance of nearby companies also make the setting ripe for high work demands. Although science and technology professionals are often expected to show dedication to their work (Smith-Doerr 2004; Traweek 1988), it is an empirical question whether these women embrace work devotion or whether they push through their demanding days with exhaustion and quiet resentment (as half of the executive women in Blair-Loy's (2003) study did). The likely variation in the degree to which individuals actually embrace work devotion makes this a useful case to analyze the role work devotion plays in shaping perceptions of overload. Additionally, because women typically take on more caregiving responsibilities than men, a population of women is useful because they are likely more apt than similarly-situated men to experience overload. Moreover, the resources available to these women means this is an important population in which to examine whether motherhood, net of actual care responsibilities, moderates the effect of work devotion on overload.

Our case also fills an empirical gap. Despite much research on women in science and technology, little research explicitly focusing on *high-status* women researchers and professional service providers in the nonacademic science and technology industries (see Cech and Blair-Loy 2010 for an exception). Women are under-represented in leadership in these industries (Catalyst 2007; National Bar Association 2006; National Academy of Sciences 2007), and we shed light on some of the cultural reasons for this by studying a concentrated sample of successful, high-status women. Finally, our case suggests troubling implications for long work hours and the minimization of family needs. We address these issues in the Discussion section.

SOCIAL STRUCTURAL CONDITIONS OF WORK AND FAMILY LEADING TO PERCEPTIONS OF OVERLOAD

We examine the effect of embracing the work devotion schema on the experience of feeling overloaded and exhausted by one's roles, net of paid work hours and family responsibilities. National samples indicate that a large proportion of U.S. workers would like to cut down on hours at their paid jobs (Reynolds 2005) and feel overloaded by various life responsibilities (Jacobs and Gerson 200). The subjective experience of overload is most common among managers and professionals, the highly educated, and those who spend the most time at their paid jobs (Clarkberg and Moen 2001; Jacobs and Gerson 2004; Galinsky et al. 2004). Gender and family caregiving responsibilities matter too. Because women are more likely than men to take on the lion's share of caregiving, women are more likely than men and mothers more likely than fathers to feel overloaded (Cha 2010; Clarkberg and Moen 2001; Galinsky et al. 2004; Jacobs and Gerson 2004; Moen, Kelly, and Hill 2011). Elder care responsibilities also foster overload (Galinsky et al. 2004). The professionals we study who report overload may not actually want to drop back to part-time or change other fundamental aspects of their job or family lives to help alleviate the feelings of overload, as such changes are often accompanied by negative career tradeoffs (cf. Barnett et al. 2009; Misra, Lundquist and Templer 2012). In short, both work and family demands can lead to overload, especially for women.

Concrete workplace resources can help reduce such feelings of overload. Studies find that schedule control decreases the sense of overwork (Galinsky et al. 2004), feelings of work-to-home conflict (Blair-Loy and Wharton 2004; Jacobs and Gerson 2004; Voydanoff 2004; but see Blair-Loy 2009), and other negative workplace outcomes (Moen, Kelly, and Hill 2011). In addition, higher salaries make work effort seem more valued and fairly rewarded and allow workers to purchase more family support. Flexibility policies and organizational cultures that support employees' work-life balance may also reduce the experience of overwork and overload (Cech and Blair-Loy 2010, Moen et al 2011).

Our measure of the experience of overload includes three interrelated factors: the wish to cut down on work hours (Reynolds 2005; Jacobs and Gerson 2004), feeling pushed to exhaustion, and the sense that one is overloaded by all one's roles (Galinsky et al. 2003; Jacobs

and Gerson 2004). Existing literature suggests a set of expectations about the effects of work and family circumstances on overload. *These expectations motivate the work and family variables we select as controls* in our models.

First, we expect that the heaviest workplace demands will produce the strongest feelings of overload across paid and unpaid roles. These demands include long hours at one's paid job, coming in early or staying late, having a line (vs. staff) position, and having a high-level position (one of the top two jobs) in one's firm. On the other hand, workplace resources such as schedule control, higher salaries, the presence of organizational flexibility policies, and perceptions of the effectiveness of their organization at supporting women likely reduce the sense of overload. As explained below, our models also control for tenure and broad professional category.

Second, we expect that family caregiving responsibilities will also increase feelings of overload. Respondents with primary responsibility for child care (vs. those who share that care with other adults or have no children) and those who care for someone due to old age, disability, or illness will be more likely than otherwise similar women to experience overload. In the context of these expectations, the next section presents formal hypotheses about the relationship between work devotion and feeling overloaded.

CULTURAL SCHEMAS INTERPRETING STRUCTURAL WORK AND FAMILY CONDITIONS

While quantitative work-family literature has extensively documented the effects of structural work and family demands on feeling overloaded across all life roles, it has largely overlooked the cultural meanings of these conditions for those who experience them. Qualitative studies of work support the assertion that meaningful work can justify difficult working conditions. Blair-Loy (2003) argues that U.S. firms are built on a cultural model that assumes elite employees will manifest undivided devotion to work as a valued end. This work devotion schema is elicited by and expressed within specific organizations, institutionalized in organizational "practices of evaluation, compensation, and advancement," and "has become semi-autonomous from purely economic considerations and acquired its own normative impact" (Blair-Loy 2003:21). Like other rhetorics of normative control throughout American history (Barley and Kunda 1992), the work devotion schema shapes assumptions, values, emotions, and

identities. Scholars have described similar cultural structures using terms such as the “career mystique” (Moen and Roehling 2005), “overtime culture” (Fried 1998), “ideal worker norms” (Williams 1999), “work becomes home” (Hochschild 1997), and a “neoclassical conceptualization of the calling” (Bunderson and Thompson 2009). Adhering to the work devotion schema means that the needs of paid work come before other life roles, especially family and personal responsibilities (Blair-Loy 2010; Williams et al. 2013).

The work devotion schema among executive and professional workers has several dimensions, each of which may be more or less embraced by individual employees. These dimensions include a *cognitive acceptance* of the legitimacy or intractability of work demands, a *moral and emotional identification* with one’s employer or profession, *inspiration and transcendence* of personal limitations from the projects and relationships that work provides, and a metaphorical “*adrenaline high*” from challenges, (Blair-Loy 2003). For example, one executive woman in finance expressed several of these dimensions:

The pace, getting up in the morning with a rush of adrenaline . . . Every day we'd be coming into work to do impossible things. . . . There were no barriers to what we could accomplish . . . to forward the mission of the organization” (Blair-Loy 2003, p. 11).

This respondent has personally embraced work devotion, including an identification with the company’s “mission,” connection to the team, the transcendence of “barriers,” and being infused with energy (metaphorically expressed as “adrenaline”). Blair-Loy (2003) found that about half of the executive women she interviewed remained enthusiastic adherents of work devotion. Yet others had become disenchanted with work devotion and slogged through their days with quiet exhaustion and resentment, fearful of the career consequences of open skepticism.

Schieman and colleagues (2009: 871) argue that professionals are more likely than non-professionals to “internalize the work devotion schema” and its demands for time, dedication, and engagement. This schema encourages professionals to use their job resources, such as authority and schedule control, in ways that increase the permeability of work and home life, increase their work hours, and ultimately aggravate work-to-home conflict. A study of financial workers argues that higher expectations of work devotion among managers discourages the use of formal family-friendly policies among higher status workers (Wharton, Chivers, and Blair-

Loy 2008). By feeling unable to use such family-friendly policies, high status workers may experience increased work-family conflict. These studies make claims about work devotion as a mechanism affecting outcomes such as work-life conflict but are not able to measure it.

The work devotion schema may be particularly salient among professionals in science, technology, law, and related fields. Fox, Fonseca, and Bao (2011) use work devotion to describe the demands placed on and embraced by academic scientists. Despite the threat of antiquation, long work weeks, and the subordination of family relationships to their work, young science and technology professionals are inculcated with the belief that knowledge is worth a lifetime of commitment and sacrifice (Smith-Doerr 2004; Traweek 1988). Neophytes are immersed in the rhetoric of passionate dedication to their calling, reinforced throughout their careers by professional socialization, ethics training, certification, and professional organizations (Cech 2013; Fox, Fonseca, and Bao 2011; NAE 2004). Caregiving responsibilities are deemed secondary to professional goals (Traweek 1988).⁴

Broadly, workers' feelings of overload will depend in part upon their interpretation of the value and legitimacy of their professional obligations. These assessments will, in turn, depend upon their degree of acceptance of the work devotion schema. Qualitative research suggests that employees vary in their responses to organizational expectations of work devotion. We argue that these responses shape how individuals actually experience overload. Quantitative approaches are useful for exploring workplace meanings because they can systematically control for structural work and family circumstances. Previous sociological research on work devotion (e.g. Fox, Fonseca, and Bao 2011; Schieman, Milkie, and Glavin 2009; Wharton, Chivers, and Blair-Loy 2008) has generally failed to measure the internal, subjective dimension of work devotion—the extent to which workers themselves adhere to this schema.

This article expects – and measures - variation in the personal embrace of the work devotion schema among the population studied here. Our survey items do not capture the entirety of the work devotion schema, but represent important conceptual elements of it. We measure two indicators of an individual's degree of acceptance or rejection of components of the

⁴ IRIS professionals include scientific and allied researchers as well as science professional service providers, such as patent lawyers. Although less intense than the socialization into science, the professional indoctrination of law students also fosters dedication to the legal practice (Brockman 2001; Epstein 1993; National Bar Association 2006).

schema. The first indicator, “*organizational dedication*,” measures work devotion as it manifests in a sense of alignment with and inspiration from the goals and values of one’s firm. This measure includes four items that tap *cognitive acceptance* of the legitimacy of putting in extra effort to help her employer succeed, the *moral identification* with her organization’s values, her *emotional investment* in the organization’s fate, and the *inspiration* she derives from her organization. The second indicator, a metaphorical “*adrenaline high*,” taps the energy infusion or inspiration that can arise when tackling professional challenges.

This work devotion literature motivates our first formal hypothesis:

Hypothesis 1: Within this high status sample, net of their work and family circumstances, an individual’s close adherence to the work devotion schema will reduce perceptions of overload.

However, for many working professional women with children, the work devotion schema collides with the “family devotion schema,” a cultural model that defines women’s primary vocation as caring for fragile and precious children (Blair-Loy 2003, see also Hays 1996). This cultural model is widely taken for granted, at least among middle-class whites, in American culture. We expect that tension between these two culturally mandated orientations to a worthwhile life means the relationship between work devotion and overload will be different for mothers of young and school-aged children. Mothers in the U.S. face demanding “cultural ideals surrounding motherhood” (Bianchi, Robinson, and Milkie 2006: 124; see also Hays 1996), which may be the impetus for increased parental time with children. Even highly career-oriented women with children are held accountable to cultural expectations and demands that make family responsibilities equally or more pressing than a professional vocation (Blair-Loy 2003).

Moreover, through professional indoctrination and reward, scientists (Traweek 1988), technology professionals (McIlwee and Robinson 1992; NAS 2007), and lawyers (Epstein 1993) learn that their families support their work, not the other way around. Culturally defined conflicts between the callings of motherhood and these professions matter (Greenman 2011) and is reflected in the decreasing likelihood that women in science and technology companies or law firms will have children the further up the hierarchy they advance (Brockman 2001; Epstein 1993; Xie and Shauman 2003). We anticipate, therefore, that the embrace of work devotion will

not inoculate mothers of young and school-aged children from feelings of overload to the same extent that it does for other respondents.

Hypothesis 2: Net of the actual demands of being the primary caregiving parent, we expect that the cultural identity of motherhood moderates the effect of work devotion on perceived overload. We construct an interaction term between work devotion and motherhood of young and school-aged children. After this interaction term is added, we expect that the coefficient for the main effect of work devotion (now indicating devotion among women who do not have young and school-aged children) will become even more strongly negative. This would mean that, among respondents *without* young or school-aged children, the ideology of work devotion is particularly potent in reducing perceptions of overload. Conversely, work devotion will have less power to alleviate feelings of overload among mothers of young and school-aged children. The interaction term should have a positive coefficient, which, among mothers of children under 16, would counterbalance the expected negative effect of organizational dedication on overload. We expect that work devotion regains its effectiveness among women whose children are older than 16. Thus, we construct an additional interaction term between work devotion and having a child 16 years old or older. We expect this interaction term to be insignificant—i.e. that being the mother of an older child will not similarly dampen the relationship between work devotion and overload.

DATA

We collected survey data from members of IRIS, which is a non-profit professional association for women in science, technology, and allied fields that provides workshops, networking events, and research. IRIS is located in a region of California with a high concentration of science and technology organizations. This region has nearly 100,000 technical workers earning a mean annual wage of \$85,000—over two times the average worker's salary. One out of 10 private sector workers in the area is employed by a science or technology organization working in fields such as pharmaceuticals, software, telecommunication, and defense (California Cybercities 2006), with additional workers providing professional legal and business services to these firms. The regional concentration intensifies social and professional

ties as well as the competition for resources (Whittington, Owen-Smith, and Powell et al. 2009), which in turn reinforce the notion that work requires dedication and long hours.

We have defined our population based on the empirical boundaries defining IRIS rather than relying on Census occupations or other pre-existing categories. This association has delimited their professional arena, defining who is most relevant for professional collaboration, networking, and information sharing in the region. IRIS members belong to commercial science and technology firms, universities, governmental agencies, and service organizations such as law firms and venture capital firms. This is a similar combination of organizations noted in other research on science and technology clusters (Whittington, Owen-Smith, and Powell 2009). IRIS offers membership only to women viewed as holding executive or analogous positions and to a small group of promising up and comers endorsed by executive members.

With the approval of IRIS' Executive Director and Board, we sent our survey to all 494 IRIS members in December 2005. Three hundred and five women returned the surveys, yielding a 62% response rate, which is high for a powerful and busy population. Although a sample of 305 is relatively small, many factors associated with overload are already controlled for by the homogeneity of our sample. Whenever possible, we compare our sample characteristics to women in the National Science Foundation's SESTAT data (2003), a nationally-representative sample of professionals in U.S. science and technology industries (Cech and Blair-Loy 2010).

As noted above, we have chosen a revelatory case in which the conditions under study—overload and the cultural expectation for work devotion—are likely to be abundant in order to analyze the effects of varying levels of work devotion on the experience of overload across life roles. Scientists and technologists plan their lives around experiments or project deadlines (Xie and Shauman 2003), while the attorneys in our sample, who provide services to the science and technology organizations, are under pressure to reach or exceed their firms' increasing billable hour requirements and face stigma if they seek to cut their hours (Epstein et al. 1999).

Outcome Variable: Overload

The subjective experience of overload is analytically distinct from the number of paid hours one works (Jacobs and Gerson 2004, pp. 13-14) and encompasses paid and unpaid life roles. We measure it with an index of three dichotomous measures ($\alpha = .625$). The first is a standard work hours item (Jacobs and Gerson 2004; Reynolds and Aletraris 2006): "I wish I

could cut down on the number of hours I work a week” (1=yes). To get a more complete picture of women’s sense of overload (cf. Galinsky et al. 2004; Aumann, Galinsky and Matos 2011), we also use the items, “I feel overloaded with all the roles in my life” (1=yes) and “I push myself too hard and exhaust myself” (1=yes). Thirty seven to 46 percent of respondents reported yes on each item. The overload scale is additive and ranges from 0 (none of the statements apply) to 3 (all apply). Frequencies for each are indicated in Table 1. Nearly a third of respondents report none of the overload indicators, while 20 percent face all three.

Confirmatory factor analysis (CFA) with structural equation models provides empirical support for our theoretical claim that these three indicators of overload measure a similar underlying subjective experience. CFA shows that the three indicators of overload hold together as one latent construct and the coefficient estimates are all significant at the $p < .000$ level ($\chi^2 = 0$, $df = 0$, $CFI = 1$, $RMSEA = 0$). CFA standardized coefficient estimates: “cut down on hours,” .49; “overloaded,” .61; and “push myself too hard.”

Independent Variables: Work and Family Characteristics

Our independent variables include workplace demands, workplace resources, other job variables, family and caregiving responsibilities, and adherence to the work devotion schema. Workplace demands include the number of hours worked per week, having zero or one levels between respondent and the top position (1=yes), being in a line position of responsibility (1=yes), and often coming in early or staying late (1=strongly disagree to 4=strongly agree).

Workplace resources include a measure of schedule control based on responses to the item, “It’s easy for me to rearrange my work schedule when I need time off for family or personal obligations” (1 = strongly disagree to 4 = strongly agree). We also measure whether “flexible work arrangements exist” in their organization (1=yes) and their (Ln) income.

Finally, to isolate the effects of work devotion from respondents’ feelings about their employers’ effectiveness at recruiting and developing women, we include a scale measure of respondent’s perception of their organization’s support of women. This measure is a combination of three Likert scales: “I feel that my company is effective at attracting women executives,” “I feel that my company is effective at developing women executives,” and “I feel that my company is effective at retaining women executives” (1=strongly disagree to 5=strongly agree). These variables were factor analyzed ($\alpha = .911$), summed, and then the sum was

divided by three. The Pearson's r correlations for the three questions in this scale range from .755 to .778. Rotated factor loadings are as follows: attracting women: .847; developing women: .879; retaining women: .861.

We also control for professional tenure (years of experience in science, technology, and related fields) and professional category. As does the IRIS organization, we distinguish between two broad categories: researchers and service providers. About half of IRIS and about half of our sample have research track careers in science and technology; many also have research supervisory responsibility. Most research track professionals work in commercial science and technology firms and have job titles such as Vice President of Scientific Research, Executive Director of Biotech Research, Founder, and CEO. Others work in academia (e.g., Professor) and government (e.g., defense technology). We combine these researchers in different sectors into one professional orientation because they face broadly similar conditions of work (Shapin 2008) and often collaborate on research and development (Whittington et al. 2009).

The other professional group is composed of service providers, who either work in service-providing firms (e.g., patent attorneys, marketers, venture capitalists) or who work inside science and technology firms (e.g., General Counsel, Chief Financial Officer). These legal and business specialists belong to a different professional category than research track scientists and engineers, as they lend their expertise in securing funding, writing patents, and marketing new scientific products, but are deeply integrated into the science and technology sector.

To assess caregiving responsibilities, we measure the presence of young or school-aged children (under 16) in the household (1=yes). We distinguish this group from respondents who have older or adult children (1=yes) and those with no children (the reference category).⁵ We also include a dummy variable for the respondent having "the primary responsibility for taking care of the children" in the household (1=yes), versus sharing or delegate this care to a spouse or other adults or having no children at all (0=no).⁶ We also include a dummy variable for whether

⁵ We measure the presence of children under 16 rather than distinguishing preschoolers from school-aged children. This is consistent with Jacobs and Gerson's (2004: 91-92) finding that the presence of children in either age group is linked to work-family conflict in similar ways.

⁶ We use primary caregiving responsibility as the indicator of interest because the overload literature demonstrates the particular difficulties that women who are primary caretakers face balancing work and family, compared to women who have shared or secondary responsibilities.

the respondent provides special care for someone due to old age, illness, or disability (1=yes), and we control for marital status (1=has spouse or life partner).⁷

Independent Variables: Work Devotion

We constructed two measures of an individual's embrace of the work devotion schema, following the dimensions identified in Blair-Loy (2003).

The first measure is a four-item "*organizational dedication*" scale (0=low, 3=high, alpha=.780), which taps facets of the work devotion schema as expected by and expressed within a specific organization. This measure is the mean response to four Likert scale items (0=strongly disagree to 3=strongly agree). "I am willing to put in a great deal of extra effort beyond that normally expected in order to help my organization be successful" taps respondents' *cognitive acceptance* of the legitimacy of firm's work expectations. "I find that my values and my organization's values are very similar" shows a sense of *moral identification* with the organization. "I really care about the fate of my organization," explores the *emotional investment* respondents have in the success of their organization. "My organization really inspires the very best in me" taps the *transcendence* of personal limitations that respondents feel as a result of being involved in important projects and work relationships. Nearly 90% of respondents somewhat or strongly agreed with at least two statements; 53% agreed with all four.

⁷ Schieman, Milkie, and Glavin (2009) found no effect of marriage on work-nonwork interference, but research on women in science and related fields finds that marriage affects other work outcomes such as promotion (Xie and Shaumann 2003).

A CFA suggests that these measures are a part of the same subjective experience of organizational dedication: coefficient estimates are all significant at the $p < .000$ level ($\chi^2 = 2.94$, $df = 2$, $CFI = .997$, $RMSEA = .039$) and the standardized coefficient estimates are as follows: “extra effort,” .57; “same values,” .78; “care about the fate,” .75; and “inspire the best,” .76. The Pearson’s r correlations for the four measures in the organizational dedication scale are between .403 and .603. Rotated factor loadings are as follows: same values: .744, care about the fate of organization: .723, extra effort: .552, inspires the best: .726. The second measure is the response to whether a respondent receives a metaphorical “*adrenaline high*” when dealing with problems or challenges at work (1=yes). This item measures a general orientation toward work as an energizing and enlivening dimension of one’s life.

In addition to these close-ended items, the IRIS survey also included one open-ended question (completed by 67.5% of the sample) about how effective employers are at recruiting and retaining women leaders. Although a systematic analysis of this question is beyond the scope of this paper, the final section provides several widely shared responses to illustrate, in the women’s own words, the processes we have analyzed. These quotes are meant to provide color and context to a quantitative analysis that stands on its own.

ANALYTIC STRATEGY

The results section presents four ordered logistic regression models: the first includes work and family/personal obligation variables only, the second adds our measures of work devotion, and the third model adds interaction terms between motherhood of young and school-aged children and work devotion and between motherhood of older children and work devotion. We present ordered log-odds regression coefficients (rather than the proportional odds ratios) in the tables for ease of interpretation. Following Allison (2001), we handled missing data through multiple imputation—specifically, the chained equations technique (“chained” command in STATA 12). This procedure generates multiple imputed data sets (5 in our case) and pools the results from the analysis from each data set to provide the parameter estimates. MI is preferred over listwise deletion or single imputation techniques because it does not similarly bias coefficient estimates or standard errors (Allison 2001). Several variables, including the dependent variable, were not missing values. Income had the highest percent missing (11%), and all other variables had less than 5% missing. Listwise deletion would have resulted in loss of

16% of the sample. To ensure our MI procedure is not introducing bias, we replicated our models with listwise deletion and found the same results on key variables (results not shown).

Like most quantitative studies on this topic (e.g., Jacobs and Gerson 2004; Reynolds 2005; Schieman, Milkie, and Glavin 2009; Voydanoff 2004), this article uses cross-sectional data. Our hypotheses specify causal directions (i.e. that work devotion decreases overload) that are based in existing literature. We also recognize that this process could simultaneously occur in the reverse direction, as attitudes and behavior are intertwined (Ajzen and Fishbein 1977). To provide additional support for our interpretation, we test a competing explanation that the negative statistical relationship we find between work devotion and overload is spurious and is actually driven by workplace and family demands depleting work devotion while also increasing overload. We run supplemental models that predict the work devotion measures with workplace and family demands. Counter to this competing explanation, we find that work and family demands are positively related or unrelated to work devotion.

FINDINGS

Descriptive Results

Table 1 lists the variables used in our regression models. Where possible, we compare characteristics of our IRIS sample to women in the SESTAT national sample of professionals in science, technology and allied fields (2003). Compared to national data, our respondents are similar in age, research focus, and family status. As we expected in selecting the IRIS case, our sample has higher-level jobs with more demanding conditions.

[Table 1 about here]

IRIS respondents work in 230 different organizations. Fifty-two percent of the sample works for commercial science and technology firms, 3.4% is employed by government, and 7.9% by universities. In the SESTAT data, 47.4% are employed in profit or non-profit firms, while 18.2% are employed in universities and 11.9% in government.

Compared to women in the national data, our respondents are similarly likely to work as researchers or research managers (IRIS=56%, SESTAT=52.8%) and are similar in age (IRIS mean=46.1 years, SESTAT=43.1; not included in the models because age is highly correlated with tenure). Our respondents supervise more people (IRIS mean=14.6 people, SESTAT=7.7). Forty-five percent of respondents report that they hold one of the top two positions in their firms,

and 62% have line (as opposed to staff) positions. Three-quarters of our IRIS sample have mid-level responsibility (e.g., managing director) or higher, including 22% of respondents holding C-level or analogous positions (e.g., CEO, CFO, COO, CTO, President) (not shown in Table 1).

Compared to women in national data, our respondents work more hours per week (IRIS mean=52.3 hours, SESTAT=40.6) and have a much higher mean salary (IRIS=\$145,509; SESTAT=\$60,265; our models use the natural log). Most IRIS sample members report that they often come early or stay late at work. They also have access to many resources: most agree that they can easily rearrange their work schedule when they need time off for family or personal obligations, and most (75%) report that their organization offers flexible work arrangements.

Our sample has lower representation of racial and ethnic minorities (11.5%) than the national SESTAT sample (16.0%), possibly because glass ceilings bar many from high-level positions (Long and Fox, 1995). We have no hypothesis that race/ethnicity would affect our outcome variable in this sample and preliminary analyses showed no substantive effects, so we exclude this measure from our reported models.⁸

Compared to women in the SESTAT data, our sample has a similar proportion of married women (IRIS=72%, SESTAT=68%) and mothers of young or school age children (IRIS=30%, SESTAT=33%). In our IRIS data, 14% has primary responsibility for child care. Twenty-two percent has a child 16 years or older, and 18% provides special care for someone due to old age, disability, or illness (Table 1).

Two variables tap the degree to which respondents embrace the work devotion schema. Fifty-nine percent report that they get an “adrenaline high” when dealing with challenges at work, suggesting that they respond to professional responsibilities with excitement and energy. The other facet of work devotion we measure, organizational dedication, is the mean response to a four item scale (scores can vary from 0 to 3). The mean value on this measure is 2.17 (see Table 1), indicating that most respondents identify with their organization’s values, care about its fate, and feel inspired by their work. Only 5% of the sample has a value of zero, indicating little organizational dedication. The mean value on overload of 1.28 shows that respondents on average agreed with at least one of the three indicators of overload in this scale.

⁸ Our sample is 88.5% white, 4.3% Asian/Pacific Islander, 3.3% Hispanic/Latino, 2% African American/Black, and the remainder “other.” Racial and ethnic minority groups are somewhat less well represented in our sample than in a national sample of all (male and female) science and technology practitioners (84.0% white, SESTAT 2003).

Multivariate Results

The ordered logit regression coefficients in Model 1 in Table 2 shows the effects of the structural conditions of work and family caregiving on feelings of overload. The findings largely support our first and second expectations. Work demands such as coming in early or staying late and holding a top job are associated with an exacerbated sense of overload (although the latter effect only reaches marginal significance under a two-tailed test). On the other hand, schedule control and organizational support are associated with reduced feelings of overload. Those with longer professional tenure and those in research-track careers (compared to professional service providers) are less likely to feel overloaded.

Our results are also largely consistent with expectation three. Having child(ren) under age 16 magnifies the sense of overload, as does having primary responsibility for child care. Caring for someone due to old age, illness, or disability is also associated with feeling more overloaded (although this effect is only marginally significant under the two-tailed test). Having a spouse or life partner does not affect overload.

Model 2 adds measures of two facets of the respondent's acceptance of the cultural schema of work devotion: the organizational dedication scale and the indicator for receiving an "adrenaline high" from work challenges. Consistent with Hypothesis 1, both work devotion measures significantly decrease feelings of overload.⁹

The addition of the work devotion measures in Model 2 changes the statistical significance of three other variables. Once work devotion is controlled for, the effects of the work demands generally increase in level of significance. The effect of hours becomes associated with overload (at the marginal level of significance). In contrast, the workplace resources of schedule control and employer effectiveness in supporting women's advancement lose statistical significance. Employer effectiveness is correlated with (Pearson's $r = .504$) but conceptually distinct from the broader organizational dedication measure. Importantly, the work devotion measures are associated with reduced overload in Model 2, even net of respondents' appreciation for firm support for women's advancement and net of the other work and family characteristics in the model. Thus, we find that even net of work and family demands and

⁹ Multiply-imputed models do not produce pseudo R-squared estimates. With listwise deletion, we found that the Nagelkerke pseudo R-squared of Model 1 to be .254 and of Model 2 to be .288. The increase in explanatory power between Model 1 and 2 is significant at the .002 level.

resources, the cultural meanings of work, as captured by the work devotion measures, influences whether respondents actually feel overloaded by these responsibilities.

[Table 2 about here]

But do these effects vary by motherhood status? Model 3 includes two interaction terms: one between organizational dedication and having a child under age 16, and another between organizational dedication and having an older or adult child. Consistent with Hypothesis 2, the first interaction term is positive and statistically significant. This indicates that the effect of organizational dedication on perceived overload is moderated by motherhood, even net of whether they have primary care responsibilities. In other words, organizational dedication has a strongly negative effect on overload for non-mothers, but among mothers of young or school-aged children, the effect of organizational dedication all but disappears. Thus, the power of organizational dedication to ease feelings of overload loses its potency among mothers of young and school-aged children, and this result is net of whether respondents have primary responsibility for child care. This moderating result of motherhood status could be due to the influence of the family devotion schema, which defines motherhood as a vocation that competes morally with work devotion. In contrast, the main effect of organizational dedication, which now indicates the impact of organizational dedication on reducing overload among childless women, retains the same level of statistical significance as it had in previous model without the interaction term.¹⁰ In contrast, we found no statistically significant interaction between organizational dedication and mothers of older and adult children.¹¹ In other words, the embrace of the cultural model of work devotion buffers the effect of workplace responsibilities on overload for mothers with older children the way it does for child-free women.

We ran a separate model (not shown) with interaction terms between “adrenaline high” and having a child under age 16 and having an older or adult child. These terms were not statistically significant, suggesting that the significant effect of being energized by challenges at work is not moderated by motherhood and remains a buffer to overload.

¹⁰ The main effect of being a parent of a child under age 16, which now indicates the effect of motherhood among women with low organizational dedication, is no longer statistically significant. Including this interaction term does not substantially change the association between overload and the variables other than motherhood and organizational dedication.

¹¹ The interaction term with mothers of older children remains insignificant if it is included in the model without the mother of younger children interaction term (results not shown).

[Figure 1 about here]

The slopes of the line plot in Figure 1 illustrate these interaction effects. Points to the left of the chart predict the overload value for women with low levels of organizational dedication, while points at the right predict overload for otherwise similar women with high acceptance of organizational dedication. We used the equation from Model 3 to predict the values of overload for each subsample in the figure; all independent variables other than organizational dedication and the motherhood indicators were set at the mean. The figure compares women with children under age 16 at home, those with children 16 and over (including adult offspring no longer at home), and those with no children. The slopes of the lines illustrate the differential power of organizational dedication to mitigate overload for the different motherhood status groups. The power of organizational dedication to alleviate perceptions of overload is much stronger for non-mothers and mothers of older and adult children, as seen in their markedly steeper slopes compared to the mothers of children under 16.

COMPETING EXPLANATION

Among our sample of senior women in science and related fields, we found that work demands and family demands increase the sense of overload, while the individuals' embrace of devotion decreases overload. Like most studies of this topic, we use cross-sectional data. However, we can test a plausible alternative explanation that the negative association between work devotion and overload is an artifact of a different causal process: heavy work and heavy family demands decrease work devotion, while also aggravating overload. To assess this competing explanation, we conducted a separate multivariate analysis (results not shown) predicting organizational dedication as a dependent variable with the workplace demands and caregiving responsibilities as independent variables. For this competing explanation to be supported, we would have to find that work and family demands have significant and *negative* associations with organizational dedication.

We found instead that all the work demand variables (hours worked, coming in early or leaving late, and, marginally significantly, having a top level job) are *positively* associated with the individual embrace of work devotion. Work devotion is not significantly linked to family demands, except for a negative association with providing special care to someone due to old age, illness, or disability. Substituting adrenaline for organizational dedication in this alternative

model yields results in the same direction that are mostly non-significant. Thus, there is no clear indication that the piling on of work and family demands dampens respondents' sense of work devotion or that this process is the real driver behind our findings.

DISCUSSION AND CONCLUSION

We examine an exemplar and under-studied case of elite women professionals in a science and technology cluster. We develop and test a theoretical argument of how embrace of the "work devotion schema," the cultural understanding of intensive work as meaningful and worthwhile, helps buffer the sense of overload in this case. We find that professional women who most closely adhere to the work devotion schema experience less overload compared to those with similar work hours and work and family conditions who do not embrace this schema.

Our interpretation of these findings is that the work devotion schema creates a cognitive, emotional, and moral construal of work as worthwhile in the service of noble professional goals and inspiring organizations. The embrace of a cultural model that elevates work as a valued goal renders the means of work as seemingly justifiable and thereby seemingly less conducive to work-life conflict.

This resonates with Weber's analysis of dedication to work could be an end in itself, worthy of pursuit with "passionate devotion" (Weber 1981: 135). This interpretation is also consistent with qualitative research on work devotion among business elites (Blair-Loy 2003). Our findings align with suggestions made in other recent scholarship that cultural models such as work devotion shape the experience of work and family responsibilities (Greenman 2011; Schieman, Milkie, and Glavin 2009; Wharton, Chivers, and Blair-Loy 2008), yet unlike this previous research, we measure facets of work devotion directly.

Earlier research on work devotion addressed the expression and enforcement of this schema within organizations. Beyond the organization-level, work devotion may have a distinctive manifestation at the level of the profession. Science and technology researchers may experience an especially strong vein of the work devotion mandate. Even before career entry, scientists and technologists are inculcated with values of lifelong commitment to scientific work for its own sake (Cech 2013). We find that respondents in research-track jobs experience less overload than those providing professional services such as law and finance (analysis not shown), even though the two groups have similar levels of organizational dedication and the

inspiration, referred to metaphorically as “adrenaline,” from work challenges. It is possible that, compared to service providers like patent attorneys in a scientific sector, science and technology researchers may have an aspect of *professional* devotion that more powerfully protects against the experience of overload. To explore this option, we constructed interaction terms between the work devotion measures and the indicator of a science/technology research position (models not shown). We found that science and technology researchers experience the alleviating effect of the “adrenaline” high on feelings of overload significantly more strongly than those who provide professional services. It appears that science and technology researchers’ perceptions of professional work as energizing is a stronger buffer against overload than those in other fields. We urge scholars to continue to examine how cultures of work and family devotion, as well as other gendered cultural schemas permeate professions.¹²

A second finding is that the overload-dampening effect of one facet of work devotion, organizational dedication, is sharply curtailed for women with young and school-aged children. This moderation effect is net of whether the mothers are primary caregivers. It is not, then, the concrete caretaking responsibilities of being a worker and a primary caretaker that seem to be driving this moderation effect, but processes related to the competing cultural expectations of working mothers with children. Mothers confronting cultural expectations that “intensive motherhood” (Hays 1996) and “family devotion” (Blair-Loy 2003) are vocations that compete morally and emotionally with work as a valued goal. The cost of time that intense careers rob from children who are culturally defined as precious may be too high for many mothers in the sample, leading to feelings of overload even for those who embrace work devotion. Thus, our findings point to the importance of more research on the enduring influence of the family devotion schema, even among full-time, professional women (cf. Greenman 2011).

Further, we found that organizational dedication regains its power for mothers of older or adult children.¹³ It is possible that, as their children age, respondents are no longer compelled by

¹² One example is Bunderson and Thompson’s (2009: 50) study of zookeepers, whose sense of calling is “a source of transcendent meaning, identity, and significance as well as of unbending duty, sacrifice, and vigilance,” resonant of the 16th-century Protestant ethic (Weber 1930).

¹³ Most means on the independent variables are similar among the three subgroups of motherhood status. Modest differences include mothers of younger children working fewer hours (49.0 vs. 53.5 for childless women) and showing slightly higher levels of overload (1.60 vs. 1.21 for child-free), while childless women are less likely to be married or have a life partner.

cultural schemas of motherhood that define long work hours as damaging to loved ones. Perhaps they become recaptured by an ideology that defines long work hours as part of a moral calling. Longitudinal data are needed to confirm this interpretation. Such data would also allow us to track and control for other variables in the data, since mothers of younger children, mothers of older children, and childless women may differ in other ways and may face distinct selection pressures that would also affect overload (Holtzman and Glass 1999).

Our results suggest troubling implications for long work hours and gender inequality in science and related fields. Previous research on scientists has found gender gaps in patenting (Whittington and Smith-Doerr 2008), in earnings (Cech 2013), and (among parents) in promotions (Xie and Shauman 2003). Even in our sample of highly-successful senior women, the work devotion schema can create another possible source of gender inequality, in that women tend to have more caregiving responsibilities than men. Some of these high-ranking respondents have personally embraced the work devotion schema and thereby feel less overloaded. However, they may also be reinforcing organizational expectations of overload that other women (and involved caregiving men) may find difficult or undesirable to fulfill. Ideal worker norms are masculinized (Williams 1999), and the expectation of work devotion can be particularly draconian for employees with family and other life obligations. Other research has identified the “flexibility stigma” as the flip side of the work devotion schema (Williams, Blair-Loy, and Berdahl 2013; Cech and Blair-Loy 2014).

We present responses from an open-ended survey item to give examples of this process in respondents’ own words (not to exemplify all responses to the survey item).

All others [besides me] in top positions are men with no children or have stay-at-home wives, so they have no clue. [respondent in 50s, married, mother of a young or school-aged child]

My company expects executives to do significant travel and devote personal time to work. They have found it difficult to attract women who are willing to do this. [40s, married, no children]

Moreover, these expectations make it unlikely that men will take an equal role in family caregiving, which disadvantages wives with professional jobs.

At the same time, by promising intrinsic and extrinsic rewards to its disciples and by reducing the sense of overload, the work devotion mandate offers a compelling and meaningful vision of career achievement to some women. Open-ended responses also reveal this seductive promise of gender-neutral opportunity for some women:¹⁴

Gender is irrelevant; performance and commitment are key. [40s, unmarried, no children]

The only thing holding women back in our company is their lack of desire to hold the level of responsibility necessary for senior roles. [50s, married, mother of older child]

While my company has some women at high levels, they are women who are extremely driven and not distracted by outside issues. If the focus is on performance at work only, women who have or want a life will not be successful in gaining stature in the company. [40s, married, no children]

The luxury (or poverty) of having no outside distractions may only be an option for women with limited caregiving obligations or for those with unusually high levels of spousal support. However, most women and even most professional women do not get this much support from husbands, who are often “missing in action on the home front” while building their own careers (Stone 2007: 62).

As our results show, the benefits of work devotion are not equally distributed across women; even if mothers share in the same cultural meanings of work as their childless and older-parent colleagues, they do not enjoy the same reduction in their feelings of overload. Most of our respondents hold powerful enough positions within their organizations to have sway in setting employee policies. But cultural adherence to work devotion held by high-level women

¹⁴ The optional open-ended question prompt asked about women’s opportunities for advancement in respondents’ organization, and did not directly ask about the challenges and promises of work devotion. Nonetheless, these themes emerged in open-ended quotations: 18 respondents gave similar responses to those above regarding the expectations of work devotion, and 15 gave similar responses exemplifying a belief that work devotion leads to success.

may, in addition to influencing their own experiences of overload, may also undermine their motivation to implement workplace policies to address the overload of subordinates. Further, the presence of individual women who have succeeded under the work devotion mandate may further legitimate long hours and the minimization of family responsibilities as fair and reasonable.

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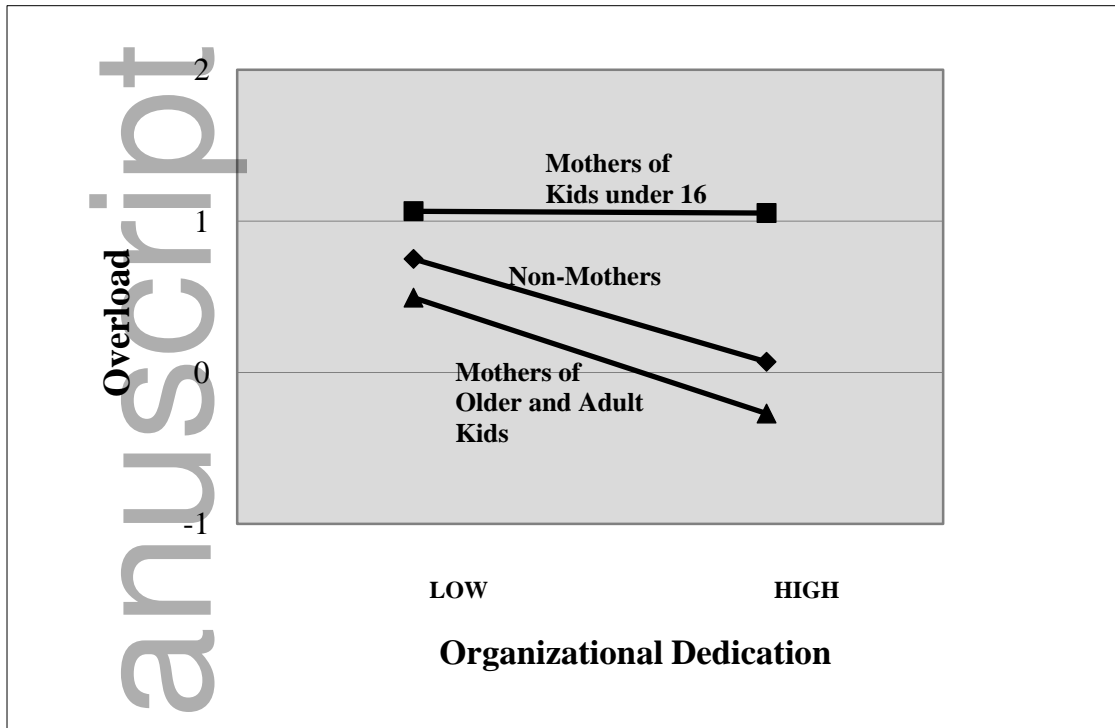
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Figure 1: Predicted Effects of High and Low Organizational Dedication Values on Overload, by Motherhood Status



NOTE: We used the equation from Model 3 to predict the values of overload for each subsample in the figure; all independent variables other than organizational dedication and the motherhood indicators were set at the mean. Overload values for the “High” organizational devotion groups were predicted using the median third quartile value (2.67) of organizational devotion. Overload values for the “low” organizational devotion groups values were predicted using the median first quartile value (1.75) of organizational dedication. The following values were substituted for the focal variables in the respective subgroups when calculating predicted values of overload: “Non-mothers” (young children=0, older children=0), “Mothers of young children” (young children=1, older children=0), “Mothers of older children” (young children=0, older children=1).

Table 1: Means and standard deviations of variables (N = 305)

	Mean	Std. Error
<i>Dependent Variable</i>		
Sense of Overload (range 0 to 3) ^a	1.28	.064
<i>Independent Variables</i>		
WORKPLACE DEMANDS		
Number of hours worked per week (hours)	52.31	9.45
Often come early or stay late (1=Strongly Disagree, 4=Strongly Agree)	3.40	.78
At one of the top two levels (1=yes)	.45	.50
WORKPLACE RESOURCES		
Schedule control (1=rigid schedule, 4=non-rigid schedule)	3.08	.81
Log(Income)	11.89	.52
Value	\$178,129	124,600
Flex policies in organization (1=yes)	.75	.44
Employer effectiveness (1=Strongly Disagree, 5=Strongly Agree)	3.14	1.08
OTHER JOB VARIABLES		
Professional tenure (years)	18.10	8.60
Professional category: Sci or Tech Research-track position (1=yes)	.56	.50
CAREGIVING RESPONSIBILITIES		
Married or life partner (1=yes)	.72	.45
Mother of child under 16 (1=yes)	.30	.46
Mother of child over 16 (1=yes)	.22	.41
(Reference category of no children)	.48	.47
Primary responsibility for childcare (1=yes)	.14	.35
Provide special care for a family member (1=yes)	.18	.38
WORK DEVOTION VARIABLES		
“Adrenaline high” from work challenges (1=yes)	.59	.49
Organizational dedication ^b (0=low, 3=high)	2.17	.67

^a Scale based on sum of agreement with 3 dichotomous (0, 1) items: Wish to cut down on number of hours, Push too hard and exhaust myself, and Feel overloaded. Frequencies for the variables that make up overload index: “I wish I could cut down” (45.9%), “I push myself too hard and exhaust myself” (37.1%), I “feel overloaded” (44.0%). 32 percent said yes to zero items; 28% said yes to one item; 19% said yes to two items, and 20% said yes to all three items.

^b Scale based on the mean response to 4 Likert scale items (0 Strongly Disagree to 3 Strongly Agree): Willing to put in extra effort to help my organization succeed, Care about the fate of my organization, Hold similar values as my organization, and My organization inspires the best in me.

Table 2: Ordered logistic regression (multiple-imputation estimates) models predicting sense of overload (N=305)

Independent Variables	Model 1		Model 2		Model 3	
	B	Std. Error	B	Std. Error	B	Std. Error
WORKPLACE DEMANDS						
Hours worked	.017	.013	.022 +	.013	.023+	.014
Often come in early or stay late	.605 ***	.157	.665 ***	.161	.666 ***	.161
At one of top 2 levels	.518 *	.237	.595 *	.236	.660 **	.237
WORKPLACE RESOURCES						
Schedule control	-.513 ***	.147	-.450 **	.149	-.468 **	.152
Income (ln)	-.171	.255	-.059	.265	-.139	.265
Flex policies	-.231	.271	-.225	.274	-.190	.275
Employer effectiveness	-.205 +	.109	-.051	.121	-.074	.122
OTHER JOB VARIABLES						
Professional tenure	-.031 *	.016	-.029 +	.016	-.028 +	.016
Professional category: Sci or Tech research-track (1=yes)	-.592 **	.229	-.644 **	.230	-.643 **	.233
CAREGIVING RESPONSIBILITIES						
Married or life partner	.200	.265	.213	.271	.226	.272
Mother of child under 16	.587 *	.287	.061 *	.289	-1.102	.866
Primary responsibility for childcare	.861 *	.380	.792 *	.383	.810 *	.385
Mother of child over 16	-.279	.300	-.290	.303	-.238	.984
Provide special care due to illness, disability, old age	.588 *	.293	.543 +	.301	.606 *	.304
WORK DEVOTION						
“Adrenaline high” from work challenges			-.511*	.230	-.479 *	.234
Organizational Dedication			-.578 **	.208	-.820 **	.265
INTERACTION TERMS^a						
Organizational dedication * mother of child under 16					.807*	.382
Organizational dedication * mother of child over 16					-.013	.424
Model F test	4.66 ***		4.64 ***		4.23 ***	

Notes: + p<.1 *p<.05 **p<.01 ***p<.001 (Significance based on a two-tailed test); Pseudo R-squared of models using listwise deleted models (because MI models do not produce Pseudo R-squared estimates): Model 1 Pseudo R-squared: .255; Model 2 Pseudo R-squared: .289; Model 3 Pseudo R-squared: .301; Model 3 Pseudo R-squared: .312.

^aBecause interaction terms in ordered logit models cannot be interpreted in the same straightforward way as interaction terms in OLS regressions (Ai and Norton 2003), we conducted several supplemental analyses (see e.g. Karaca-Mandic et al. 2012; Norton et al. 2004) to assess the validity of the direction and significance of the interaction term: (1) We ran Model 3 as an OLS regression rather than as an ordered logit. While our four-item measure of overload is below the standard 5-item cutoff for running OLS models, this allowed us to observe the significance and sign of the interaction terms and compare it to those in Model 3. In these OLS models, the mother of child under 16*organizational dedication interaction term is significant and positive (as it is in the ordered logit model.) (2) We used the margins command in Stata to examine the differences in the marginal effect of organizational dedication on overload for mothers and non-mothers of children under 16. Specifically, we computed the marginal effects of organizational dedication for mothers and non-mothers and tested the significance of the difference between the two. We found this to be positive and significant (.0213, p=.030). These two supplemental analyses supports is the conclusion that it is appropriate to consider the interaction term between mother of child under 16* organizational dedication to be significant and positive.