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## A Demands and Resources Approach to Understanding Faculty Turnover Intentions Due to Work–Family Balance

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### **Abstract**

Using data collected on tenure-line faculty at a research-intensive Midwestern university, this study explored predictors of faculty job turnover intentions due to a desire for a better work–family balance. We adopted Voydanoff’s theoretical framework and included demands and resources both within and spanning across the work and family domains. Results showed that work-related demands and resources were much stronger predictors of work–family turnover intentions than family-related demands or resources. Specifically, work-to-family negative spillover was positively associated with work–family turnover intentions, and two work-related resources (job satisfaction and supportive work–family culture) were negatively associated with work–family turnover intentions. On the other hand, family-related demands and resources (within the family domain or boundary-spanning from family to work) did not significantly predict work–family turnover intentions.

**Keywords:** faculty, work–family balance, turnover intentions, demands and resources

Balance between work and personal or family life remains a critical issue for faculty. According to the results from the 2010–2011 Higher Education Research Institute Faculty Survey, only 32% of faculty in the United States strongly believe that they have a healthy balance

between their professional and personal life (Hurtado, Eagan, Pryor, Whang, & Tran, 2012). This low percentage corresponds with the research that shows serious incompatibility between work and family life among faculty (Gatta & Roos, 2004; Jacobs & Winslow, 2004b; O'Laughlin & Bischoff, 2005; Ward & Wolf-Wendel, 2004). Clearly, there is still plenty of room for improvement in work–family balance in academia.

The research on the intersection of work with family life has grown in recent years (Bianchi & Milkie, 2010). Previous research tends to focus on the job demands–resources model (see Bakker & Demerouti, 2007) to identify the work-related characteristics that contribute to the incompatibility between work and personal life (Bakker & Geurts, 2004; Schieman, Milkie, & Glavin, 2009; Voydanoff, 2004). In addition to job characteristics, however, family-related characteristics should also play a role in work–family balance. Thus, Voydanoff's (2005b) conceptual model incorporates demands and resources both within and across the work and family domains to fully understand work–family balance. The purpose of this research is to apply Voydanoff's demands and resources approach to understand a faculty member's intention to leave an academic appointment for a better work–family balance. Turnover intentions are strongly connected to the actual act of quitting (Mobley, 1982; Steers & Mowday, 1981) and are often used as an indicator of turnover in empirical research (e.g., Smart, 1990; Xu, 2008b).

Studies in nonacademic work settings show a significant association between work–family balance and turnover intentions in general (Allen, Herst, Bruck, & Sutton, 2000; Anderson, Coffey, & Byerly, 2002; Greenhaus, Parasuraman, & Collins, 2001; Voydanoff, 2005a). Among faculty, work–family balance is also linked to general turnover intentions (Preston, 2004). To the best of our knowledge, researchers have not examined faculty turnover intentions that are specific to one's desire for a better work–family balance. Given that multiple factors go into faculty turnover intentions in general (e.g., job satisfaction, salary, opportunities for career advancement, pursuit of research interests, department climate; Callister, 2006; Daly & Dee, 2006; Matier, 1990; Rosser, 2004; Smart, 1990; Xu, 2008a, 2008b; Zhou & Volkwein, 2004), focusing exclusively on work–family–balance-specific turnover intentions (henceforth referred to as work–family turnover intentions) should better illuminate the work- and family-related factors that lead faculty to opt out of an institution.

Using data from the *Faculty Network and Workload Study* (FNWS), a census of faculty within the natural and social sciences at a large research-intensive Midwestern university, this study examines how various resources and demands both within and spanning across the work and family domains are associated with work–family turnover intentions. With these data it is possible to explore Voydanoff's (2005b) demands and resources model on a U.S. academic population. Previous studies have applied the concepts of demands and resources to non-U.S. academic populations (Bos, Donders, Bouwman-Brouwer, & Van der Goulden, 2009; Boyd, Bakker, Pignata, & Winefield, 2011). These studies, however, only examined demands and resources in the work domain neglecting the family domain and did not solely focus on tenure-line faculty (i.e., the studies included lecturers and staff). Another advantage of using the FNWS data is that it allows us to take into account family life circumstances beyond family characteristics (e.g., spouse/partner's employment, presence of children), such as time spent on household work and different kinds of support from family. This is an important contribution to the literature because research on work–family issues among faculty often rely on family demographic characteristics to measure their family life (see Lundquist, Misra, & O'Meara, 2012; Misra, Lundquist, & Templer, 2012; Suiter, Mecon, & Feld, 2001, for exceptions).

## **Literature Review**

### *Work–Family Issues Among Faculty*

Faculty work involves high job pressures and heavy workloads. The ideal worker norm is present within academics (Ward & Wolf-Wendel, 2012; Williams, Alon, & Bornstein, 2006) and expects a high commitment to one's career without allowing family responsibilities to interfere with work (Blair-Loy, 2003; Jacobs & Gerson, 2004; Williams, 2000). Although there is variation by gender, academic rank, type of institution, and life stage, faculty typically work more than 50 hours per week (Jacobs & Winslow, 2004a). Moreover, faculty often marry other academics or partners with demanding professional or managerial jobs. It is not uncommon that the total work hours of dual-career couples exceed 100 hours per week (Jacobs & Winslow, 2004a). In terms of family responsibilities, two studies have shown that faculty

spend an average of 10 to 14 hours on housework per week (the average is higher for women than men; Misra et al., 2012; Suiter et al., 2001). These studies also indicate that dependent care (e.g., child care, elder care) substantially increases the overall time spent on household work.

The concepts of *negative role spillover* (Grzywacz & Marks, 2000) and *work-family conflict* (Allen et al., 2000; Carlson, Kacmar, & Williams, 2000) are commonly used to explain situations where “participation in the work (family) role is made more difficult by virtue of participation in the family (work) role” (Greenhaus & Beutell, 1985, p. 77). While it is not the only factor in faculty turnover, the incompatibility between the work and family roles has been considered a key component of faculty retention in the literature (Mason & Goulden, 2002, 2004; Ward & Wolf-Wendel, 2012). If faculty jobs are so demanding and if it is so difficult to juggle work and family life, then what are the factors that prompt faculty to or prevent them from considering leaving an institution for a better work-family balance?

### **Conceptual Framework**

Within Voydanoff’s approach *demands* are defined as “structural or psychological claims associated with role requirements, expectations, and norms to which individuals must respond or adapt by exerting physical or mental effort” (Voydanoff, 2004, p. 398). *Resources* are defined as “structural or psychological assets that may be used to facilitate performance, reduce demands, or generate additional resources” (Voydanoff, 2004, pp. 398-399). The relationship between work and family life is best understood by examining demands and resources within each life domain (i.e., work and family) and those that span across both domains (e.g., work to family). Thus, there are two types of demands and resources: within-domain and boundary-spanning.

*Within-domain demands* (e.g., paid work or housework hours) and *within-domain resources* (e.g., psychological rewards of the job or being a parent) belong to either the work or family domain. On the other hand, *boundary-spanning demands* and *resources* originate in one domain but can serve as a demand or resource in both domains. Generally, boundary-spanning demands (e.g., working at home or family

interruptions at work) make it harder to achieve work–family balance, whereas boundary-spanning resources (e.g., work–family initiatives at work or spouse and kin work–family support) make it easier to attain work–family balance. We apply this conceptual framework and examine which demands and resources within and spanning across the work and family domains are significant predictors of work–family turnover intentions.

### *Within-Domain Demands*

Work and family demands are likely to put a strain on work–family balance. Within the work environment, we include work hours as a within-domain demand. It is common for faculty to overwork (Jacobs & Winslow, 2004b), and work hours are generally related to decreased ability to balance work with family (Keene & Quadagno, 2004; Michel, Kotrba, Mitchelson, Clark, & Baltes, 2011; Milkie & Peltola, 1999). Thus, we hypothesize the following:

**Hypothesis 1:** Long work hours will be associated with higher work–family turnover intentions.

Within the family, we examine two within-domain demands. First, we consider family composition characteristics focusing on spouse/partner’s employment and dependent care responsibilities. Spouse/partner’s work hours generally increase the difficulty balancing work and family (Jacobs & Gerson, 2004; Milkie & Peltola, 1999). Dependent care (especially care for children) also generates more burdens on faculty (Misra et al., 2012; Suiter et al., 2001) and affects their decisions to keep pursuing a tenure-line faculty position (Mason, Wolfinger, & Goulden, 2013). Second, we identify family demands in terms of hours spent on household work. Similar to work hours, spending excessive hours on family responsibilities is likely to increase tensions between the work and family roles (Greenhaus & Beutell, 1985; Michel et al., 2011). Thus, we expect the following:

**Hypothesis 2:** Having a full-time working spouse/partner, higher dependent care responsibilities, and more hours on household work will be associated with higher work–family turnover intentions.

### *Within-Domain Resources*

In contrast to demands, work and family resources can improve work-family balance. One key work resource is job satisfaction. In general, job satisfaction is a crucial factor in faculty's turnover intentions (Smart, 1990; Xu, 2008b). Although much research focuses on the challenges within academia, even faculty who are struggling with work-family balance report the joy of working as a professor (Ward & Wolf-Wendel, 2004, 2012). It is possible that faculty who are satisfied with the job itself are less likely to think of leaving the position regardless of difficulty balancing work and family compared with faculty who have lower job satisfaction.

**Hypothesis 3:** Higher job satisfaction will be associated with lower work-family turnover intentions.

One key family resource pertains to a spouse or other kin providing instrumental support at home, such as sharing housework and care responsibilities. Support at home would reduce a faculty member's family demands and it is known as a crucial aspect of balancing work with family (King, Mattimore, King, & Adams, 1995). We use support with household work as a within-domain resource in the family and expect it to diminish work-family turnover intentions.

**Hypothesis 4:** Support with household work will be associated with lower work-family turnover intentions.

### *Boundary-Spanning Demands*

This study uses measures of negative role spillover to capture the concepts of boundary-spanning demands originating at work or in the family. Keene and Quadagno (2004) found that both directions of spillover (work-to-family and family-to-work) predicted negative perceptions of work-family balance. A meta-analysis specific to the consequences of work-to-family conflict has also found its significant association with organizational commitment and turnover intentions (Allen et al., 2000). Thus, we hypothesize the following:

**Hypothesis 5:** Work-to-family and family-to-work spillover will be associated with higher work-family turnover intentions.

Work-to-family spillover, however, might be a more influential factor than family-to-work spillover. Quitting or changing one's job can reduce demands originating at work, but it is unlikely to reduce demands that originate in the family. One study using a sample of accountants found that work-to-family conflict had a greater impact on turnover intentions than family-to-work conflict (Greenhaus et al., 2001).

**Hypothesis 6:** Work-to-family spillover will be more strongly associated with higher work-family turnover intentions than family-to-work spillover.

### *Boundary-Spanning Resources*

As we have described, work-family balance has been difficult to achieve in academia due to the academic work culture, such as the ideal worker norm. Faculty are often hesitant to bring up personal life or discuss work-family issues in the workplace because they are afraid that their colleagues might doubt their commitment to career (Drago et al., 2006; Rice, Sorcinelli, & Austin, 2000). Work-family benefits, such as paid/unpaid parental leaves and tenure-clock extensions, have become widely available at academic institutions (Hollenshead, Sullivan, Smith, August, & Hamilton, 2005; Mayer & Tikka, 2008; Quinn, Lange, & Olswang, 2004; Spalter-Roth & Erskine, 2005; Wolf-Wendel, Twombly, & Rice, 2000). Yet there is concern that work-family culture influences the willingness of faculty to take advantage of these benefits (Drago et al., 2006; Hollenshead et al., 2005; Lundquist et al., 2012; Spalter-Roth & Erskine, 2005).

For workers in general, work-family culture in the workplace is of increasing importance (Andreassi & Thompson, 2008; Kossek, Pichler, Bodner, & Hammer, 2011). The concept of *work-family culture* is relatively new, but it generally refers to "the extent to which work environment is supportive with regard to employees' work-family needs" (Mauno, Kinnunen, & Ruokolainen, 2006, p. 214). Supportive work-family culture is essential in improving workers' ability to balance work with family (Anderson et al., 2002; Behson, 2002; Mauno et al., 2006; Mesmer-Magnus & Viswesvaran, 2006). For example, work-family culture affects an employee's willingness to use available work-family policies and programs (Allen, 2001; Kinnunen, Mauno, Geurts & Dikkers, 2005; Kossek, Lewis, & Hammer, 2010). Supportive work-family culture also has a negative relationship with turnover



intentions (Allen, 2001; Thompson, Beauvais, & Lyness, 1999; Thompson & Prottas, 2005). Therefore, this study includes supportive work–family culture as a boundary-spanning resource originating at work.

**Hypothesis 7:** Positive perceptions of work–family culture will be associated with lower work–family turnover intentions.

Workers often receive emotional support for their work from their family members, such as understanding for the job-related stress and encouragement for career development (King et al., 1995). Emotional support from family reduces stress due to difficulty balancing the work and family roles (Carlson & Perrewe, 1999). Thus, we consider emotional family work support as a boundary-spanning resource originating in the family and hypothesize the following:

**Hypothesis 8:** Emotional family work support will be associated with lower work–family turnover intentions.

To examine the hypothesized associations it is necessary to control for potential confounders. Compared with men, women faculty tend to report having greater difficulty managing work and family responsibilities (DeAngelo et al., 2009; Drago et al., 2006; Fox, 2010; Fox, Fonseca, & Bao, 2011), lower satisfaction with work–family balance (Gardner, 2012), and higher turnover intentions in general (Xu, 2008b; Zhou & Volkwein, 2004). Race and academic rank could also affect turnover intentions (Menges & Exum, 1983; Smart, 1990; Zhou & Volkwein 2004). Furthermore, job characteristics (Becher & Trowler, 2001; Fox, 2001, 2010) and reasons behind turnover intentions (Xu, 2008a) vary across academic disciplines. Thus, control variables of gender, race, academic rank, and discipline are included to isolate their potential influence in the analyses.

## **Method**

### *Sample*

We use survey data from the FNWS, which was conducted at a research-intensive Midwestern university. In spring 2011, 744 full-time faculty with a tenure-line in 26 Science, Technology, Engineering, and

Mathematics (STEM) and 16 Social and Behavioral Sciences (SBS) departments were asked to participate in the survey about faculty life (e.g., workload, social networks, job satisfaction). The FNWS provided mail and Web options, and more than 75% ( $N = 559$ ) of the surveyed faculty provided an answer to at least one questionnaire item. Basic demographic data (gender, race, academic rank, and academic discipline) were obtained from the Office of Institutional Research and Planning for all faculty and were matched to the survey data. An analysis of nonresponse found that associate professors were least likely to participate in the survey among all ranks (assistant, 81.7%; associate, 68.9%; full, 75.4%;  $\chi^2 = 7.86, p < .05$ ). Also, faculty in engineering (65.1%) were less likely to participate compared with faculty in other disciplines (physical sciences, 76.9%; biological sciences, 78.3%; business, 71.4%; and education and social sciences, 77.9%;  $\chi^2 = 9.55, p < .05$ ). There were no gender or race differences in survey nonresponse.

We limited our analytic sample to respondents who had the potential for work–family conflict. Using a criteria similar to the approaches used in previous studies (Anderson et al., 2002; Carlson & Perrewe, 1999; Thomas & Ganster, 1995), respondents with at least one of the following family characteristics were included in our analyses: (a) whose spouse or partner had a full-time job (i.e., worked 35 hours or more per week); (b) who had at least one biological, adopted, or step child; and (c) who were providing care for any dependent adult (e.g., elderly, disabled, or chronically ill) at the time of the survey. Only 62 respondents did not meet our sample criteria because they were not caring for a dependent adult and were either married/partnered non-parents whose spouse/partner did not have a full-time job ( $N = 34$ ) or single nonparents ( $N = 28$ ). Eleven single respondents met our sample criteria (seven with children and four with dependent adults), but were dropped because the group was too small to make a statistically valid comparison to married/partnered faculty. We further excluded faculty from the sample who self-reported that leaving the institution to achieve a better balance between their work and personal or family life was not applicable to their circumstance ( $N = 34$ ) or who skipped the question ( $N = 8$ ). Additional cases were lost due to missing data on the family characteristic questions ( $N = 24$ ) or on other variables of interest in this study ( $N = 19$ ).

The final size of the analytic sample is 401. The majority of faculty in the analytic sample had children (80%,  $N = 320$ ). About half

of the parents (52%) had at least one child between 0 and 18 years living in the household, including 61 parents with children under 5 years old. The remaining 48% of the parents had only children over the age of 18 years or nonresidential children. Only 8% of the analytic sample ( $N = 31$ ) were caring for dependent adults, with about 5% ( $N = 20$ ) caring for both children and dependent adults. Among the faculty with children and/or dependent adults ( $N = 331$ ), more than 60% had a spouse/partner who worked full-time, and the other 40% had a spouse/partner who did not work full-time. Finally, our analytic sample included 70 faculty without dependent care responsibility but whose spouse/partner worked full-time.

### *Measures*

The dependent variable is a single-item measure for work-family turnover intentions. Respondents identified to what extent they had considered leaving the institution to achieve a better balance between their work and personal or family life. There were three response options (1 = *not at all*; 2 = *to some extent*; 3 = *to a great extent*). In our analytic sample, 229 respondents (57.1%) selected “not at all,” 116 respondents (28.9%) selected “to some extent,” and 56 respondents (14.0%) selected “to a great extent.”

*Within-Domain Demands.* Respondents were asked to indicate how many hours they spent on seven work activities in an average week in the past academic year: (a) classroom teaching, preparing for class, and grading; (b) working with students outside of class (e.g., emails, meetings, recommendation letters); (c) working on research; (d) fulfilling administrative responsibilities; (e) working on committees; (f) extension (e.g., outreach); and (g) practice (e.g., external paid consulting). We summed hours spent on these activities to create a variable for *work hours*. Extreme outlier values (reporting above 80 hours per week,  $N = 12$ ) were truncated to 80 hours. Hours worked is mean-centered in all multivariate analyses.

Three variables measure respondents' within-domain demands in the family. The first measure is a dummy variable that indicates whether or not faculty's *spouse/partner works full-time* (1 = spouse/partner works full-time; 0 = spouse/partner is not employed or works part-time). Second, we used family composition data to create a count variable for the level of dependent care responsibility. Specifically, we

gave a score of two for each child living in the household above the age of 5 years and a score of three for each child living in the household below the age of 5 years. Parents not currently living with their children (e.g., empty nesters and noncustodial parents) were given a score of one for having any children. An additional score of one was given to the respondents who also had any adult dependent care responsibility. Faculty without any children or dependent adults were given a score of zero. This measurement strategy was modeled on several different studies (Allen et al., 2000; Andreassi, 2011; Behson, 2002; Rothausen, 1999; Shockley & Allen, 2010), but developed using the data available in the FNWS. Third, respondents reported how many hours they spent on home and family responsibilities, such as food preparation, shopping, yard work, laundry, cleaning, and dependent care, in a typical week. *Hours on household work* is mean-centered in all multivariate analyses.

*Boundary-Spanning Demands.* Measures for boundary-spanning demands are adapted from the work-family conflict index developed by Carlson et al. (2000), which measures time- and strain-based negative role spillover (Greenhaus & Beutell, 1985).<sup>1</sup> Results from a factor analysis revealed one factor for demands that originate at work and spillover into the family, and a second factor for demands that originate in the family and spillover to work. A two-item index assesses *work-to-family spillover* ( $\alpha = .75$ ). For this index, respondents answered the following questions: “The time I must devote to my job keeps me from family activities more than I would like” and “Being emotionally drained after work prevents me from enjoying my family/personal life.” A two-item index also captures *family-to-work spillover* ( $\alpha = .49$ )<sup>2</sup>: “The time I spend with family often keeps me from spending time on work activities that could be helpful to my career” and “Due to stress in my family/personal life, I am often preoccupied with personal matters at work.” Faculty provided answers with a 6-point scale (1 = *strongly disagree*; 2 = *disagree*; 3 = *slightly disagree*; 4 = *slightly agree*; 5 = *agree*; 6 = *strongly agree*). Indices were created by taking the mean of the two items.

*Within-Domain Resources.* The *job satisfaction* index was calculated by taking the mean of the following three items ( $\alpha = .81$ ): “Overall, I enjoy the work I do as a faculty member”; “The work I do as a faculty member is meaningful to me”; “If I had to do it over

again, I would still become a professor” (1 = *strongly disagree* to 6 = *strongly agree*). We measured *support with household work* by adapting two survey questions from the instrumental assistance dimension of the family social support for workers index developed by King et al. (1995): “If I need to travel out of town for my job, my family would have a hard time managing household responsibilities” (reverse coded) and “If I need to work nights or on the weekends, I can count on someone to take care of things at home” (1 = *strongly disagree* to 6 = *strongly agree*). We took the mean of the two items ( $\alpha = .59$ ).

*Boundary-Spanning Resources.* *Supportive work–family culture* was assessed with a three-item index which pertains to work–family-specific support in the department ( $\alpha = .84$ ): “My colleagues are respectful of my efforts to balance work and home responsibilities”; “In my department, faculty may comfortably raise personal or family responsibilities when scheduling work activities or meetings”; “My colleagues do what they can to make family obligations and an academic career compatible.” Respondents indicated their level of agreement with a 5-point scale (1 = *strongly disagree*; 2 = *slightly disagree*; 3 = *neither agree nor disagree*; 4 = *slightly agree*; 5 = *strongly agree*). We took the mean of the three items to calculate the index. For seven respondents who self-reported that the statement was not applicable to their circumstance for all three items, we used the sample mean of the index to avoid losing the cases. A single-item assessed *emotional family work support*: “When I am frustrated by my work, members of my family try to understand” (1 = *strongly disagree* to 6 = *strongly agree*). This item was adapted from the emotional sustenance dimension of King et al.’s (1995) family social support index. Eleven respondents were given the sample mean of the item for choosing a not applicable option.

*Control Variables.* We developed dummy variables for *gender* (1 = female; 0 = male) and *race* (1 = non-White; 0 = White), and series of dummy variables for *academic rank* (assistant, associate, and full professors) and for *academic discipline* (physical sciences, biological sciences, engineering, business, and education and social sciences).

### *Data Analysis Strategy*

Since our dependent variable is a three-category ordinal variable, we ran an ordered logistic regression for the multivariate analysis (Hoffmann, 2004). Also, faculty were clustered within 42 departments. This complex sample design violated the assumption of independent observations; therefore, we adjusted for clustering in all analyses using Stata's *vce* command.

### **Results**

Table 1 presents the descriptive statistics for all variables, and Table 2 shows the correlations for the demand and resource variables, which are the primary independent variables of interest in the study. Consistent with previous research (Jacobs & Winslow, 2004a), faculty have long work weeks—averaging 53 hours a week—and the majority have a spouse or partner who work full-time (67%). In general, faculty tend to have a high number of work and family demands, although work-to-family spillover (mean = 3.7) is higher than family-to-work spillover (mean = 2.7). At the same time, faculty report a fair number of resources to help deal with these demands. Job satisfaction and emotional family work support are especially high (5.3 and 5.0, respectively, on a 6-point scale). Some resources and demands are highly correlated with one another. For example, a lack of support with household work is strongly correlated with higher family-to-work spillover ( $r = -.44$ ) and a high level of job satisfaction is moderately correlated with lower levels of work-to-family spillover ( $r = -.33$ ). Overall, having more demands is associated with fewer resources.

Table 3 provides the results of the ordered logistic regression model. Contrary to expectations, the model shows that none of the within-domain demands at work (work hours) or in the family (spouse/partner's full-time employment, dependent care responsibility, and hours on household work) significantly predicted work-family turnover intentions. Thus, neither Hypothesis 1, which stated that long work hours would be associated with higher work-family turnover intentions, nor Hypothesis 2, which stated that spouse/partner's fulltime employment, dependent care responsibilities, and more hours on household work would be associated with higher work-family turnover intentions, was supported.

Table 1. Descriptive Statistics.

Variables	Mean	SD	Min.	Max.
Dependent variable				
Work-family turnover intentions	1.57	0.73	1.00	3.00
Within-domain demands				
At work				
Work hours	52.74	11.16	7.00	80.00
In family				
Spouse/partner works full-time	0.67		0.00	1.00
Dependent care responsibility	3.02	2.55	0.00	17.00
Hours on household work	21.50	13.48	2.00	70.00
Within-domain resources				
At work				
Job satisfaction	5.29	0.74	2.00	6.00
In family				
Support with household work	4.51	1.13	1.00	6.00
Boundary-spanning demands				
Originating at work				
Work-to-family spillover	3.65	1.28	1.00	6.00
Originating in family				
Family-to-work spillover	2.71	1.08	1.00	6.00
Boundary-spanning resources				
Originating at work				
Supportive work-family culture	3.84	0.91	1.00	5.00
Originating in family				
Emotional family work support	4.95	0.87	2.00	6.00
Control variables				
Gender (1 = female)	0.24		0.00	1.00
Race/ethnicity (1 = non-White)	0.17		0.00	1.00
Academic rank				
Assistant professor	0.23		0.00	1.00
Associate professor	0.24		0.00	1.00
Full professor	0.54		0.00	1.00
Academic discipline				
Physical sciences	0.19		0.00	1.00
Biological sciences	0.37		0.00	1.00
Engineering	0.12		0.00	1.00
Business	0.07		0.00	1.00
Education and social sciences	0.24		0.00	1.00

N = 401

Table 2. Correlations for the Demand and Resource Variables.

Variables	1	2	3	4	5	6	7	8	9	10
Within-domain demands										
At work										
1. Work hours <sup>a</sup>										
In family										
2. Spouse/partner works full-time	.03									
3. Dependent care responsibility	-.10	-.16**								
4. Hours on household work <sup>a</sup>	-.05	.09	.28***							
Within-domain resources										
At work										
5. Job satisfaction	-.02	-.02	-.03	.03						
In family										
6. Support with household work	.00	-.22***	-.07	-.31***	.13**					
Boundary-spanning demands										
Originating at work										
7. Work-to-family spillover	.21**	.11*	-.04	-.03	-.33***	-.22***				
Originating in family										
8. Family-to-work spillover	-.11*	.17***	.19***	.26***	-.16**	-.44***	.30***			
Boundary-spanning resources										
Originating at work										
9. Supportive work–family culture	-.08	-.12*	.05	.06	-.29***	-.11*	.31***	.18***		
Originating in family										
10. Emotional family work support	.00	.00	-.06	-.06*	-.11	-.21***	.11*	.30***	.13*	

a. Mean-centered.

\*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$



Table 3. An Ordered Logistic Regression Model for Work–Family Turnover Intentions.

	b/[SE]	Odds ratio
Within-domain demands		
At work		
Work hours <sup>a</sup>	.01 [.01]	1.01
In family		
Spouse/partner works full-time	.28 [.25]	1.32
Dependent care responsibility	-.03 [.06]	.97
Hours on household work <sup>a</sup>	-.01 [.01]	.99
Within-domain resources		
At work		
Job satisfaction	-.74 [.18]	.48***
In family		
Support with household work	-.15 [.11]	.86
Boundary-spanning demands		
Originating at work		
Work-to-family spillover	.71 [.11]	2.04***
Originating in family		
Family-to-work spillover	.02 [.11]	1.02
Boundary-spanning resources		
Originating at work		
Supportive work–family culture	-.24 [.12]	.79*
Originating in family		
Emotional family work support	-.02 [.11]	.98
Control variables		
Gender (1 = female)	.04 [.27]	1.04
Race/ethnicity (1 = non-White)	.16 [.31]	1.18
Assistant professor <sup>b</sup>	-.49 [.33]	.61
Associate professor <sup>b</sup>	-.17 [.29]	.84
Physical sciences <sup>c</sup>	-.31 [.38]	.73
Biological sciences <sup>c</sup>	-.22 [.37]	.80
Engineering <sup>c</sup>	.54 [.40]	1.72
Business <sup>c</sup>	-.56 [.74]	.57
Threshold 1	-2.69	
Threshold 2	-.61	
Pseudo R <sup>2</sup>	.20	

Standard errors in brackets.

a. Mean-centered.

b. Full professors are the omitted reference group.

c. Education and social sciences is the omitted reference group.

\*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$

Supporting Hypothesis 3, we found that job satisfaction (a within-domain resource at work) had a significant association with work-family turnover intentions whereby faculty with high levels of job satisfaction reported lower work-family turnover intentions compared to faculty with low job satisfaction ( $OR = .48, p < .001$ ). Although faculty with more support with household work (a within-domain resource in the family) had lower work-family turnover intentions compared with faculty with less support with household work, the association was not statistically significant. Hence, Hypothesis 4, which expected support with household work to diminish work-family turnover intentions, was not supported.

Furthermore, the results showed that work-to-family spillover (a boundary-spanning demand originating at work) was a significant predictor of higher work-family turnover intentions ( $OR = 2.04, p < .001$ ), whereas family-to-work spillover (a boundary-spanning demand originating in the family) was not associated with work-family turnover intentions. Thus, the results only partially supported Hypothesis 5. Consistent with the previous research (Greenhaus et al., 2001) and supporting Hypothesis 6, work-to-family spillover had a greater impact on work-family turnover intentions compared with family-to-work spillover.

Last, having more positive perceptions of supportive work-family culture (a boundary-spanning resource originating at work) was associated with lower work-family turnover intentions ( $OR = .79, p < .05$ ). Emotional family work support (boundary-spanning resource originating in the family), however, did not show a significant association with work-family turnover intentions. Therefore, Hypothesis 7 was supported whereas Hypothesis 8 was not.

Overall, we found that only factors which were within *work* or spanning across domains but originating at *work* were significant predictors of faculty's work-family turnover intentions. Work-related demands and resources appear to be more important factors in work-family turnover intentions than any form of family-related demands or resources.

## Discussion and Conclusion

Work-family balance is difficult to achieve in academia even though faculty have relatively high job autonomy and schedule flexibility (Ward & Wolf-Wendel, 2012). The purpose of this study was to apply Voydanoff's (2005b) conceptual framework and identify work- and family-related demands and resources that are associated with the extent to which faculty have considered leaving an institution for a better work-family balance. The results suggest that work-related demands and resources generally play more important roles in work-family turnover intentions compared with family-related demands and resources.

Specifically, three of the four work-related factors were significant predictors of the work-family turnover intentions: job satisfaction (a within-domain resource at work), work-to-family spillover (a boundary-spanning demand originating at work), and supportive work-family culture (a boundary-spanning resource originating at work). In contrast, none of the six family-related factors significantly predicted work-family turnover intentions. Although our results did not support the proposed hypotheses for the family-related demands and resources, our findings are consistent with the research that emphasizes work environments as the vital components of work-family balance (Glass & Estes, 1997; Hill, Yang, Hawkins, & Ferris, 2004).

For academic institutions, it is probably easier to support faculty by improving their work life rather than intervening in their family life. Therefore, the findings from this study have useful implications for work-family initiatives. According to our findings, the efforts to increase job satisfaction, to reduce work-to-family spillover, and to develop a supportive work-family culture are needed to prevent the loss of faculty due to work-family balance issues. Considering that work hours did not significantly predict work-family turnover intentions, administrators might want to pay more attention to faculty's perceptions of their job and work environments in addition to actual work conditions. Kossek et al. (2010) argue that structural approaches, which simply alter policies and work structures, are not enough to initiate necessary changes. They advocate more informal approaches to organizational changes, such as changing workplace norms and providing social support at work. In the case of academia, for example, addressing the ideal worker norm (Ward & Wolf-Wendel,

2012; Williams et al., 2006) might help develop work environments that create less tension between the work and family roles.

Our study is not free from limitations. First, the use of cross-sectional data prohibits us from making causal claims. Second, we were not able to report the reliability of our dependent variable due to the use of a single item. It might be helpful for work–family researchers to develop a multiple-item index for turnover intentions specifically in pursuit of a better work–family balance. Third, drawing our sample from one university limits the findings’ generalizability. Nevertheless, we believe that our data are appropriate to test the applicability of Voydanoff’s conceptual framework (2005b) on U.S. faculty working at a large research-intensive university. The advantage of using the FNWS is the ability to simultaneously examine several different types of demands and resources both within and across the work and family domains. In fact, examining eight different forms of demands and resources has revealed that Voydanoff’s conceptual framework may need to be reconsidered when we are looking at the faculty. Specifically, family-related demands and resources may not be as integral as Voydanoff suggested to improving work–family integration for faculty. Of course, future research will need to replicate these findings with data collected on faculty across different institutional context.

This study extends our understanding of faculty turnover due to work–family balance. Most important, this study focused on turnover intentions specific to work–family balance rather than general turnover intentions. Doing so allowed us to isolate the key factors in retaining faculty who struggle juggling work and family. Previous research implies that the effects of demands and resources might vary by gender (Keene & Quadagno, 2004; Milkie & Peltola, 1999). This research was unable to test moderation effects of gender given the relatively small number of women in our sample (305 men and 96 women). With a larger sample, future researchers should explore the role of gender in these associations.

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## Notes

1. According to Greenhaus and Beutell (1985), behavior-based spillover is also possible when behaviors required to fill one role are incompatible with expected behaviors in another role. Because it is difficult to operationalize the concept, behavior-based spillover is rarely included in empirical research (Kelloway, Gorrlied, & Barham, 1999).
2. Although this is a two-item index, Cronbach's alpha is still quite low. In sensitivity analyses, we included each item on its own in different models and both items together in the same model. In all cases and consistent with the results reported in this article, we found that family-to-work spillover was not significantly associated with work-family turnover intentions no matter how it was measured.

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