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Pay satisfaction and work-family conflict across time

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Abstract

On the basis of justice and exchange theories, the authors propose that employees offset their levels of work-family conflict (WFC) with their levels of pay satisfaction. Results based on two waves of data indicate that pay satisfaction has a negative relationship with WFC after controlling for actual pay and other work-related and family-related variables. Analysis of pay satisfaction dimensions reveals that satisfaction with benefits and pay structure are negatively related to WFC, whereas satisfaction with pay level and pay raise are not. Number of dependents and level of education moderate the relationship between pay satisfaction and WFC; specifically, having more dependents and higher education attenuates the relationship between pay satisfaction and WFC.

Keywords

pay satisfaction, work-family conflict, job inputs

Organizations and employees seek mechanisms to ease the potential dissonance from fulfilling demands originating in work and family domains (Eby, Casper, Lockwood, Bordeaux, & Brinley, 2005; Kossek & Ozeki, 1998). Employee compensation is one mechanism that may facilitate balancing work and family demands and related perceptions of work–family conflict (WFC)—a form of inter-role conflict in which job strains and time demands interfere with family-related responsibilities (Greenhaus & Beutell, 1985). However, higher pay can have both positive and negative effects on this balance. Although higher pay allows families to buy time-saving services such as household cleaning that may positively affect work and family balance (Lewis & Cooper, 1999), higher pay is also associated with greater responsibility and additional work demands that may negatively affect work and family balance and increase WFC. In accordance, compensation research has highlighted that actual pay is only weakly correlated with work attitudes and behaviors—what matters are employee perceptions of pay (Heneman & Judge, 2000; Williams, McDaniel, & Nguyen, 2006).

Yet, generally, organizations tend to underestimate the importance of pay perceptions in determining employees' behaviors, attitudes, and perceptions—a large gap looms between what employees say and what they do with respect to pay (Rynes, Gerhart, & Minette, 2004). In response to surveys, employees tend to report that pay and its components (e.g., a pay raise) are far less important than other aspects of their work (Jurgensen, 1978; Lawler, 1971; Towers Perrin, 2003). Unequivocal evidence counters, however, that pay perceptions and pay components strongly predict work attitudes, perceptions, and behaviors (Dulebohn & Werling, 2007; Miceli & Lane, 1991; Milkovich & Newman, 2002). In other words, employee perceptions of pay—and not just actual pay—are an influential determinant of employee perceptions, attitudes, and behavior (Heneman & Judge, 2000; Williams et al., 2006). Employee perceptions of pay are reflected in the construct of pay satisfaction, which occurs when employees perceive their pay is equal to the pay they believe they should be receiving (Lawler, 1971).

Work–family (WF) research has largely neglected the study of pay issues. A recent meta-analysis indicates that fewer than 5 percent of studies in WF research have examined compensation issues (Michel, Kotrba, Mitchelson, Clark, & Baltes, 2011). Furthermore, because the primary emphasis of these studies (e.g., Boles, Howard, & Donofrio, 2001; Bruck, Allen, & Spector, 2002) was to examine the relationship between job satisfaction and WFC, they failed to consider the multidimensional nature of pay satisfaction (Heneman & Schwab, 1985; Judge, 1993a) and included only some pay elements (satisfaction with pay and fringe benefits). Bruck et al. (2002) thus called for more comprehensive assessments of pay satisfaction components for understanding WF relations.

Our objective is to build on this small body of work to better understand the relationship between pay satisfaction and WFC. In particular, we seek to clarify the relationship between global and facet assessments of pay satisfaction and WFC, while accounting for actual pay. Additionally, we seek to examine whether the pay satisfaction–WFC relationship is moderated by a set of job-related (tenure and education) and non-job-related inputs (gender and number of dependents). To do so, we ground our propositions in exchange and justice theories as elaborated in the following section.

Literature Review and Hypotheses

Pay satisfaction and work–family conflict

Social exchange (Blau, 1964; Thibaut & Kelley, 1959) and justice theories (Adams, 1963, 1965; Homans, 1961; Walster, Berscheid, & Walster, 1973) provide a framework for understanding the relationship between pay satisfaction and WFC. Social exchange theory advocates that organizations and employees engage in a mutual exchange to derive benefits that cannot be individually achieved (Emerson, 1976). Exchange theory can explain how employees perceptually balance the tradeoffs between work and family domains. For instance, employees might perceive that the compensation they receive may offset their time away from family and lower their perceptions of WFC (Fredriksen-Goldsen & Scharlach, 2001; Kossek & Nichol, 1992). We posit that when employees have positive perceptions of their pay, they view the social exchange calculus favorably and report lower perceptions of WFC. Furthermore, we assert that this exchange exists even after considering the effect associated with actual pay.

Pay satisfaction research shows that employee perceptions of pay—and not absolute pay levels—are critical determinants of employee job attitudes, perceptions, and behavior (Miceli & Lane, 1991; Williams et al., 2006); for instance, recent meta-analytic results indicate that actual pay correlates only weakly with job satisfaction ($\hat{p} = .15$; Judge, Piccolo, Podsakoff, Shaw, & Rich, 2010). Research on pay satisfaction underscores the centrality of pay perceptions and thus provides a framework for understanding social exchange processes. Dulebohn and Werling (2007) emphasize that equity considerations (Adams, 1963, 1965), which have long been central to pay satisfaction theory, focus “less on the ‘reality’ of compensation than on the perception of the compensation” (p. 197). That is, even for employees at the same compensation levels, employees may have different pay perceptions and their pay satisfaction levels may vary (Shaw, Duffy, Jenkins, & Gupta, 1999). Research on these differences in pay perceptions—driven by equity processes—consistently reveals that when employees perceive their pay as being lower than that of comparable others, they may reduce their work inputs, engage in counterproductive work behavior, and react adversely to the inequity (see Dulebohn & Werling, 2007, for a review). For example, an employee experiencing pay inequity is likely to react extremely negatively to receiving a call from their supervisor during family dinner as this intrusion would signify additional work demands that worsen inequity perceptions for the employee.

Relative pay comparisons and the concomitant equity considerations are critical in the employment relationship because social exchange is influenced by how equitably the organization responds to employee concerns (Aryee, Budhwar, & Chen, 2002). In contrast to tangible rewards and benefits that an organization may provide, social exchange is guided by employee perceptions of “mutual support and investment in the (employment) relationship” (Aryee et al., 2002, p. 268). This social exchange sentiment is illustrated in WF research, which suggests that employees who perceive that they are not being compensated equitably for the time they spend at work might be susceptible to increased WFC (Valcour, 2007). These research findings and exchange theory propositions suggest that employees who perceive their efforts are inequitably reciprocated will have lower levels of pay satisfaction; perceptions of low pay satisfaction will be associated with an unfavorable calculus of the WF exchange, and be related to higher WFC, even after accounting for the effects associated with actual pay.

Hypothesis 1. Pay satisfaction is negatively related to WFC.

Pay satisfaction facets

Building on Lawler's work, Heneman and Schwab (1985) proposed that pay satisfaction is a multidimensional construct that includes perceptions regarding benefits, pay levels, pay raises, and pay structure/administration. Benefits are indirect payments such as health insurance, pay levels are direct wages or salaries, pay raises are enhancements in pay levels, and pay structure/administration refers to an organization's internal pay hierarchy and procedures for distributing pay. Because the different dimensions of pay satisfaction are strongly correlated (Judge, 1993a; Judge & Welbourne, 1994), we propose similar relationships between the global and facet assessments of pay satisfaction and WFC. Nevertheless, the facets of pay satisfaction are conceptually distinct, and, hence, the influence of each of these dimensions in predicting WFC may differ in magnitude (Judge, 1993a). Drawing on Miceli and Lane (1991), the pay satisfaction dimensions can be differentiated between pay outcomes (pay level and benefits) and pay system (pay raise and pay structure/administration). Such a categorization is also

pertinent from an organizational standpoint: Changing pay outcomes (e.g., raising the organizational pay level and providing additional benefits) potentially represents greater organizational costs, whereas changes to pay systems (e.g., changing the procedures related to allocation or administration of pay raises) may be comparatively less costly.

The categories of pay outcomes and pay system broadly mirror the justice theory dimensions of distributive (concerned with fairness of outcomes) and procedural justice (concerned with fairness of processes; see Colquitt, Conlon, Wesson, Porter, & Ng, 2001; Folger & Konovsky, 1989; Sweeney & McFarlin, 1993). Sweeney and McFarlin (1993) observed that distributive justice was associated with person-level outcomes (e.g., pay level), whereas procedural justice was associated with system-level outcomes (e.g., pay structure/administration). In accordance, we expect to find differences in magnitude for the relationship between the facets of pay outcomes and WFC and the relationship between facets of the pay system and WFC.

Specifically, we expect the relationship between the facets of pay level and benefits satisfaction and WFC to be greater in magnitude than the relationship between the facets of pay raise and pay structure/administration and WFC. Satisfaction with direct wages or salaries (pay level) and satisfaction with indirect payments such as health insurance (benefits) represent immediate, tangible resources employees can draw on to mitigate WFC; these pay outcomes, particularly pay level, are positively related to distributive justice (Williams et al., 2006). In comparison, procedural fairness concerns play a strong role in satisfaction with changes in pay level (pay raises), with methods for distributing pay, and with the organization's internal pay hierarchy (pay structure/administration; Miceli & Lane, 1991). Procedural fairness concerns represent more distal considerations—pay changes and allocation decisions occur only annually in most organizations and therefore should have less influence on WFC. Although employees are likely to consider perceptions of both pay outcomes and pay systems to defray WFC, pay outcomes are likely to have a greater influence on WFC than pay systems because of their potential for immediate and proximal impact.

Hypothesis 2a. Facets of pay satisfaction (pay level, pay raise, benefits, and pay structure/administration) are negatively related to WFC.

Hypothesis 2b. The relationship between satisfaction with pay level and benefits and WFC is stronger than the relationship between satisfaction with pay raise and pay structure/administration and WFC.

Role of demographic moderators

The exchange between pay satisfaction and WFC is likely to vary on the basis of individual characteristics; individual employees bring to the social exchange relationship different family demands and various perceptions of their job-related inputs (George & Brief, 1990; Goulet & Singh, 2002). Employee characteristics can be categorized as non-job-related inputs (e.g., gender) and job-related inputs (e.g., tenure; Miceli & Lane, 1991; Pelled, 1996; Pelled, Eisenhardt, & Xin, 1999).

In the current study, we focus on the non-job-related inputs of number of dependents and gender and the job-related inputs of tenure and education as potential moderators of the pay satisfaction–WFC relationship. We limit our examination to these variables considering that meta-analyses in WF have revealed weak effects associated with other individual characteristics such as age and marital status (e.g., Ford, Heinen, & Langkamer, 2007). We include number of dependents because WF research has found it to be an important demographic category (Bhave, Kramer, & Glomb, 2010; Byron, 2005; Hammer, Allen, & Grigsby, 1997; Yang, Chen, Choi, & Zou, 2000). In addition, despite somewhat mixed meta-analytic findings related to gender in WF research (Ford et al., 2007), we retain gender because research has linked gender and WF (e.g., Hochschild, 1997).

On the basis of justice theory (Adams, 1963, 1965; Homans, 1961; Walster et al., 1973), we suggest that non-job-related and job-related inputs will influence the strength of the pay satisfaction–WFC relationship. Justice theory states that injustice perceptions will evoke negative emotions. To overcome negative emotions, people will modify their perceptions, attitudes, and behaviors so that their inputs and outputs correspond and justice is therefore restored (Greenberg, 1987; Judge & Colquitt, 2004). As Mowday and Colwell (2003) observed, “Inequitable treatment causes tension or distress, and people are motivated to do something about it” (p. 68). Thus, employees who perceive higher levels of inequity will be motivated to mitigate this inequity if they believe that their family demands (e.g., number of dependents) and work inputs (e.g., education) exceed their job outputs or exceed the inputs of their peers at a similar level of job output. One way of mitigating this inequity is to modify perceptions of pay and its relation to WFC.

Consider, for example, employees at similar levels of pay satisfaction who differ only in a non-job-related input such as the number of dependents. Employees who have more dependents may have higher WFC because they must meet greater family demands (direct effect), but they may also perceive that they expend higher inputs than their colleagues who have fewer or no dependents. This perception of higher inputs will attenuate the relationship between pay satisfaction and WFC for such employees compared with employees who have fewer dependents (Bianchi & Raley, 2005; Zvonkovic, Notter, & Peters, 2006). That is, in the process of mitigating inequity related to higher inputs, pay satisfaction should have a weakened ameliorating effect on WFC for employees with more dependents. Note that we contend that this moderating effect would influence the pay satisfaction–WFC relationship above and beyond the direct effect of greater inputs (i.e., having more dependents) on WFC.

Similarly, because women still perform a much greater share of housework, they are more likely than men to engage in more exchange between work and family time (Coltrane, 2000; Hochschild, 1997). For example, women, on average, invest 60 percent more time than their spouses performing household and caregiving chores (Sayer, 2005). Because women expend higher inputs, their pay satisfaction would be likely to relate more weakly to WFC. In other words, the potential for pay satisfaction to mitigate WFC would be weaker for women than for men.

Human capital models and justice theory provide the rationale for the moderating role of job-related inputs such as tenure and educational attainment (Ehrenberg & Smith, 2000; Milkovich & Newman, 2002). These models propose that employees expect returns commensurate with their investments in education and experience; employees with higher tenure have garnered greater specific human capital, and employees with higher levels of education have made higher general human capital investments. This reasoning is also congruent with justice theory (Adams, 1963, 1965; Homans, 1961) wherein employees with higher tenure and education would be seen as having higher job-related inputs. Similar to the non-job-related inputs, when employees are satisfied with their pay but have higher job-related inputs, the potential for their pay satisfaction to reduce their WFC would be lower. According to justice theory, the inequity that stems from higher job-related inputs will motivate employees to reduce inequity by perceiving their pay as less salient toward ensuring a balance between work and family demands. Or, in other words, the effect of pay satisfaction on WFC would be weaker for employees with higher tenure and higher educational attainment.

Hypothesis 3a. Number of dependents moderates the relationship between pay satisfaction and WFC such that the relationship is weaker for employees with more dependents.

Hypothesis 3b. Gender moderates the relationship between pay satisfaction and WFC such that the relationship is weaker for women than for men.

Hypothesis 3c. Tenure moderates the relationship between pay satisfaction and WFC such that the relationship is weaker for employees with higher tenure.

Hypothesis 3d. Education moderates the relationship between pay satisfaction and WFC such that the relationship is weaker for employees with higher education.

Method

Sample

We sent survey invitations to staff employees at a large Midwestern university in the United States. At Time 1 (2004), we sent 12 565 surveys and received 4883 completed surveys, for a response rate of 39 percent. At Time 2 (2006), we sent 12 901 surveys and received 3853 responses, for a response rate of 30 percent. Staff employees completed surveys during work hours and received no compensation for participating.

We restricted the analysis to employees who worked at least 30 hours a week, who completed the survey at both times, and who had salary data available for both time points. As with most panel data, attrition occurred between the two survey periods, and the final matched sample yielded a sample size of 1860 (3720 observations across Times 1 and 2). Response rates were consistent with survey research (Roth & BeVier, 1998) and compared favorably with longitudinal studies in WF research (e.g., Kelloway,

Gottlieb, & Barham, 1999). Two years passed between Time 1 and Time 2, a time lag that presents theoretical and practical considerations. The research questions focus on pay satisfaction and WFC; both variables have temporal fluctuations. The organization we studied makes changes in employees' pay annually, and life events such as marriage, civil union, or the birth of a child occur over time, so the two-year time lag should capture changes that may affect WFC. This time lag is consistent with that of other WF research (e.g., Crouter, Tucker, Head, & McHale, 2004; Fortner, Crouter, & McHale, 2004, had similar two-year time lags). Separating assessments across time also minimizes reactivity effects, such as survey participants becoming sensitized to the research questions, which may influence their consequent responses (Crouter & Pirretti, 2006). From a practical standpoint, administering surveys more frequently, which would have resulted in a shorter time lag between Time 1 and Time 2, was not feasible for the organization, especially because surveys were completed during work hours.

The sample included 1297 women and 563 men. Respondents have an average age of 45 years, 12 years tenure, and approximately 43-hour work weeks; 76 percent were married or in domestic partnerships and had an average of 1.17 dependents. No statistical differences surfaced for age, gender, tenure, education, or marital status between the final study sample and employees who responded only at Time 1. Of note, the average salary at Time 1 was \$47 871, and the average salary at Time 2 was \$52 261; the average percentage change in salary for sample employees between Time 1 and Time 2 was 9.2 percent over this two-year period. No significant changes in other components of employees' compensation (e.g., benefits) occurred in that period.

Measures

Work–family conflict

We assessed WFC using a 5-item scale developed by Netemeyer, Boles, and McMurrian (1996) with a 7-point Likert-type scale (1 = strongly disagree, 7 = strongly agree). An example item is as follows: “The demands of my work interfere with my home and family life.” The coefficient alpha reliability for this scale was .95 at Time 1 and .94 at Time 2.

Pay satisfaction

We assessed pay satisfaction using Heneman and Schwab's (1985) Pay Satisfaction Questionnaire, which has 18 items with four separate subscales: pay level (e.g., take-home pay), pay raises (e.g., most recent raise), benefits (e.g., benefit package), and pay structure/administration (e.g., consistency of the organization's pay policy). We assessed these items on a 5-point Likert-type scale (1 = very dissatisfied, 5 = very satisfied). At Time 1, the coefficient alpha values for the four subscales were pay level ($\alpha = .97$), pay raise ($\alpha = .81$), benefits ($\alpha = .92$), and pay structure/administration ($\alpha = .85$). At Time 2, the coefficient alpha values for the four subscales were pay level ($\alpha = .97$), pay raise ($\alpha = .84$), benefits ($\alpha = .92$), and pay structure/administration ($\alpha = .83$). The four subscales of the Pay Satisfaction Questionnaire are typically combined to derive a global assessment of pay satisfaction (Fields, 2002). The coefficient alpha for the global assessment of pay satisfaction was .93 for Times 1 and 2.

Non-job-related and job-related moderators

The moderator variables in this study were primarily demographic variables comprising both non-job-related and job-related inputs. The non-job-related moderators were gender (0 = male, 1 = female) and number of dependents. The job-related inputs were tenure (in years) and education (0 = not a college graduate, 1 = college graduate).

Control variables

On the basis of Eby et al. (2005), we included demographic variables as controls. In addition to the moderator variables listed previously, the control variables included work hours (Baltes & Heydens-Gahir, 2003) and marital status (0 = not married/not living with a spouse or partner, 1 = married/living with a spouse or partner; Marks, 2006; Parker & Hall, 1992). We controlled for pay at both time points to account for any effects associated with actual pay that may influence WFC. The organization provided salary data for employees at both time points, avoiding problems of common-method biases or measurement-error concerns that arise when employees self-report their pay. In the regression analyses, we used the natural logarithm of the employee's salary, which normalizes the distribution of pay (Lievens, Sanchez, Bartram, & Brown, 2010) and allows us to interpret the regression coefficients of pay as a percentage change. Finally, following Shaw et al. (1999), we included overall job satisfaction as an additional control variable to account for confounding effects in predicting WFC. Job satisfaction is a correlate of WFC (Kossek & Ozeki, 1998), and its inclusion facilitates observing effects associated with pay satisfaction independent of whether employees like their jobs (Shaw et al., 1999). We measured job satisfaction through the job descriptive index based on the facets of work, coworkers, supervision, and opportunities for promotion (Judge, 1993b; Judge & Hulin, 1993; Smith, Kendall, & Hulin, 1969). The coefficient alpha for job satisfaction was .85 for Times 1 and 2.

Results

Because variables were assessed at two periods, we created a repeated-measures panel of the dataset (Cohen, Cohen, West, & Aiken, 2003). Table 1 shows the descriptive statistics and bivariate correlations across the two periods. These results revealed strong associations between the two periods for within-person correlations of WFC ($r = .62$, $p < .01$) and global pay satisfaction ($r = .71$, $p < .01$). As expected, both facet and global assessments of pay satisfaction were negatively related to WFC at both time points and provided preliminary support for the hypothesized relationships.

Table 1. Means, standard deviations, and bivariate correlations across Time 1 and Time 2.

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
1 Tenure	12.00	9.92	—																									
2 Gender	0.70	0.46	.00	—																								
3 Age	45.06	9.58	.55	-.03	—																							
4 Family stat. _{t1}	0.79	0.41	.08	-.06	-.15	—																						
5 Family stat. _{t2}	0.74	0.44	-.03	-.10	-.02	.67	—																					
6 No. of dep. _{t1}	1.28	1.32	.11	-.11	.26	.35	.26	—																				
7 No. of dep. _{t2}	1.09	1.24	.03	-.15	.13	.34	.26	.75	—																			
8 Education _{t1}	0.74	0.44	-.14	-.12	-.11	-.04	.04	-.11	-.05	—																		
9 Education _{t2}	0.75	0.44	-.14	-.11	-.12	-.03	.04	-.12	-.05	.94	—																	
10 Work hours _{t1}	43.03	6.52	.06	-.20	.08	.04	.02	.02	-.02	.15	.14	—																
11 Work hours _{t2}	42.81	6.05	.05	-.22	.08	-.01	-.03	.01	-.02	.17	.15	.72	—															
12 Job sat. _{t1}	2.16	0.56	-.01	.02	.02	.08	.08	.04	.02	.13	.14	.09	.10	—														
13 Job sat. _{t2}	2.12	0.56	.05	.02	.08	.12	.06	.05	.03	.13	.12	.10	.11	.63	—													
14 Pay level _{t1}	2.86	1.07	.02	-.02	.06	.08	.04	.03	-.01	-.06	-.05	.02	.05	.33	.27	—												
15 Pay level _{t2}	2.96	1.05	.04	-.07	.09	.07	.06	.02	-.03	.01	.01	.07	.09	.27	.33	.65	—											
16 Benefits _{t1}	3.75	0.89	-.07	.02	-.05	.04	.03	.02	.01	.09	.11	.06	.09	.27	.23	.37	.29	—										
17 Benefits _{t2}	3.85	0.84	-.04	-.01	-.02	.01	-.02	-.02	-.04	.14	.15	.10	.10	.24	.23	.32	.39	.58	—									
18 Pay raise _{t1}	2.43	0.89	-.06	-.00	-.01	.02	-.01	-.01	-.03	.03	.05	.02	.07	.43	.35	.66	.52	.38	.32	—								
19 Pay raise _{t2}	2.63	0.93	-.02	-.04	.06	.04	.01	-.03	-.05	.07	.08	.08	.13	.33	.43	.47	.70	.27	.33	.59	—							
20 Pay struc _{t1}	2.72	0.72	-.07	-.06	.00	.04	.03	.04	.00	.01	.02	.03	.05	.38	.35	.61	.48	.43	.37	.66	.47	—						
21 Pay struc _{t2}	2.74	0.67	-.00	-.09	.06	.05	.05	.01	-.04	.01	.01	.03	.02	.32	.36	.47	.61	.28	.36	.50	.63	.62	—					
22 Pay sat. _{t1}	2.92	0.70	-.05	-.02	.00	.06	.03	.03	-.01	.02	.03	.04	.08	.44	.38	.84	.61	.66	.49	.84	.56	.86	.59	—				
23 Pay sat. _{t2}	3.01	0.68	-.00	-.07	.07	.06	.03	-.00	-.05	.06	.07	.08	.10	.36	.43	.61	.87	.43	.63	.61	.84	.61	.83	.71	—			
24 Actual pay _{t1}	47.87	19.61	.22	-.25	.29	.13	.13	.12	.08	.21	.20	.44	.46	.21	.21	.30	.32	.15	.17	.20	.24	.17	.14	.26	.28	—		
25 Actual pay _{t2}	52.26	21.52	.18	-.25	.25	.12	.12	.11	.07	.24	.23	.43	.48	.22	.23	.28	.35	.16	.18	.21	.28	.17	.15	.26	.31	.98	—	
26 WFC _{t1}	3.36	1.71	.09	-.11	.07	.09	.06	.06	.06	.10	.10	.40	.37	-.10	-.07	-.12	-.05	-.09	-.07	-.12	-.06	-.14	-.08	-.15	-.08	.23	.23	—
27 WFC _{t2}	3.43	1.60	-.01	-.08	-.02	.05	.06	.02	.07	.09	.09	.35	.45	-.07	-.12	-.10	-.08	-.04	-.10	-.09	-.07	-.12	-.16	-.11	-.13	.19	.20	.62

Note. Correlations greater than |0.05| are significant at $p < .05$. Tenure, gender, and age variables reported are from Time 1. At Time 2, the mean for the tenure and age variables increased by two years. SD, standard deviation; family stat., family status; no. of dep., number of dependents; job sat., job satisfaction; pay struc., pay structure/administration; pay sat., global pay satisfaction; actual pay, salary in thousands of dollars; WFC, work-family conflict.

Given the multilevel data of employees nested in time, we estimated a series of multilevel models with crossed random effects in Stata 10.0 (Rabe-Hesketh & Skrondal, 2008; West, Welch, & Galecki, 2007). Such an analysis assumes that organizational events occurring over time, such as changes in compensation policies and procedures, affect all employees. This procedure is pertinent for panel data and treats periods as crossed with employees; it considers time as having a “main effect” (Rabe-Hesketh & Skrondal, 2008).

Table 2 shows the results of these multilevel models. Hypothesis 1 examined whether pay satisfaction was negatively related to WFC. Supporting Hypothesis 1, pay satisfaction was negatively related to WFC ($\hat{\gamma} = -.31, p < .01$); all else being equal, an increase of one unit in pay satisfaction was associated with a .31 decrease in WFC.

Hypothesis 2a postulated that the facet assessments of pay satisfaction were negatively related to WFC. Results partially supported this hypothesis. The facet of satisfaction with benefits was negatively related to WFC ($\hat{\gamma} = -.13, p < .01$); all else being equal, an increase of one unit in satisfaction with pay benefits was associated with a .13 decrease in WFC. The facet of satisfaction with pay structure/administration was also negatively related to WFC ($\hat{\gamma} = -.23, p < .01$); all else being equal, an increase of one unit in satisfaction with pay structure was associated with a .23 decrease in WFC. The relationships between pay level and pay raises and WFC were statistically nonsignificant. Overall, Hypothesis 2a was only partially supported.

Table 2. Multilevel model results: Effects of pay satisfaction on work–family conflict.

	Controls	Global pay satisfaction	Facet pay satisfaction	Demographic moderators
Tenure	.01	.01	.00	.01
Gender	.13	.13	.14	.13
Age	-.01*	-.01*	-.01*	-.01*
Family status	.14**	.19**	.18*	.18**
No. of dep.	.09**	.08**	.08**	.08**
Education	.24**	.20**	.20**	.21**
Work hours	.09**	.09**	.09**	.09**
Job satisfaction	-.46**	-.34**	-.36**	-.34**
Log salary	.40**	.52**	.50**	.50**
Global pay satisfaction		-.31**		-.31**
Pay level			-.03	
Benefits			-.13**	
Pay raise			.03	
Pay structure			-.23**	
Gender × Pay sat.				.10
No. of dep. × Pay sat.				.07*
Tenure × Pay sat.				-.00
Education × Pay sat.				.18*
Wald χ^2	651.57**	686.60**	677.11**	697.95**
Model deviance ^a	11 309.93	10 820.39	10 379.67	10 810.84

Note. Entries for the independent variables are estimates for the fixed effects, γ s. All models included an intercept; it is omitted from the table. Pay sat., global pay satisfaction; no. of dep., number of dependents.

^aDeviance = $-2 \times \log$ likelihood of the full maximum likelihood estimate.

* $p < .05$, ** $p < .01$.

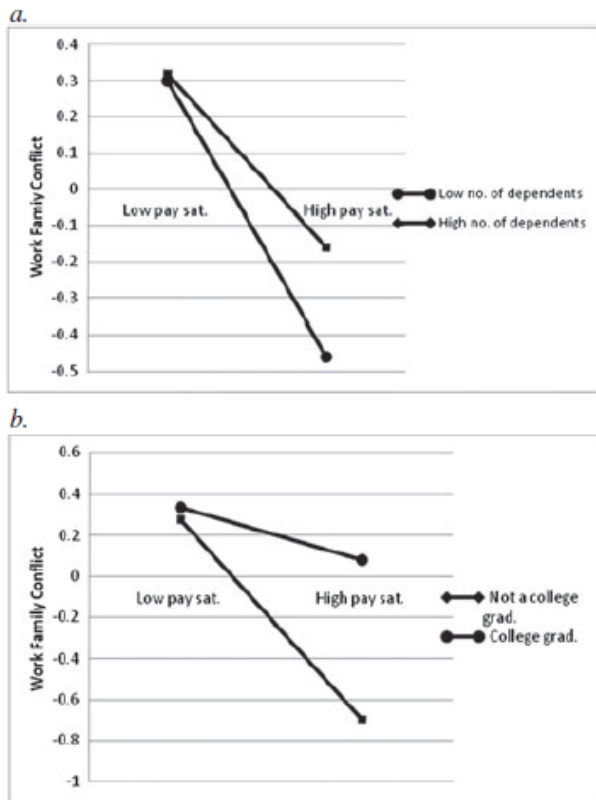
Consistent with prior research, correlations between the pay satisfaction facets were high in this sample. The correlations between the pay satisfaction facets of pay level, benefits, pay raise, and pay structure/administration ranged from .37 to .66 at Time 1 and from .33 to .70 at Time 2. Given the issues of potential multicollinearity when examining the pay satisfaction facets, as recommended, we examined the largest variance inflation factor using ordinary least squares regression (Kutner, Nachtsheim, & Neter, 2004). The largest variance inflation factor value of 2.32 was well below the recommended cut-off point of 10 that indicates possibility of multicollinearity (Kutner et al., 2004).

Hypothesis 2b postulated that the pay satisfaction facets of pay level and benefits would have a stronger relationship with WFC than the facets of pay raise and pay structure/administration. However, we found no support for this hypothesis. On the basis of the coefficient estimates and the confidence intervals, satisfaction with benefits was more strongly related to WFC than satisfaction with pay raise; pay level, however, was unrelated to WFC. Contrary to expectations, the facet of pay structure/administration had a stronger relationship with WFC than the facet of pay level. On the basis of the overlapping confidence intervals, no statistical differences appeared between the coefficient estimates of pay structure/administration ($CI_{.95} = -.33, -.12$) and benefits ($CI_{.95} = -.20, -.06$).

Hypothesis 3 suggested the moderating role of number of dependents (3a), gender (3b), tenure (3c), and education (3d) on the relationship between pay satisfaction and WFC. Because multiple moderator variables were associated with linear and multiplicative terms, we used only the global assessment of pay satisfaction in the analysis. This ensured that a parsimonious model could be tested with adequate power

when estimating moderation effects (Aguinis & Stone-Romero, 1997). Consistent with Hypothesis 3a, number of dependents ($\hat{\gamma} = -.07, p < .05$); was a statistically significant moderator; all else being equal, the joint effect of number of dependents and pay satisfaction was associated with an additional .07 increase in WFC, after accounting for the main effects associated with pay satisfaction and number of dependents. As Figure 1a shows, number of dependents moderated the relationship between pay satisfaction and WFC such that higher pay satisfaction reduced WFC more for those with fewer dependents compared with those with more dependents.

Figure 1. Moderation effect of (a) number of dependents and (b) educational attainment on the relationship between pay satisfaction and work–family conflict. Pay sat., pay satisfaction; no. of dependents, number of dependents; college grad., college graduate



Hypothesis 3d was also supported, with education moderating the relationship between pay satisfaction and WFC ($\hat{\gamma} = -.18, p < .05$); the joint effect of education and pay satisfaction was associated with an additional .18 increase in WFC, after accounting for the main effects associated with pay satisfaction and education. Figure 1b presents this interaction: for employees with higher educational attainment, pay satisfaction and WFC had a weaker relationship than for employees with lower education. In sum, Hypotheses 3a and 3d were supported—both number of dependents and educational attainment moderated the relationship between pay satisfaction and WFC. Hypotheses 3b and 3c were not supported—gender and tenure did not moderate the relationship between pay satisfaction and WFC.

Discussion

Our primary objective in this study is to examine the pay satisfaction–WFC relationship. Specifically, we seek to clarify the relationship between global and facet assessments of pay satisfaction and WFC and to determine whether the relationship differs on the basis of a set of non-job-related and job-related inputs. We examine these relationships across time because cross-sectional studies—predominant in WFC research (Casper, Eby, Bordeaux, Lockwood, & Lambert, 2007)—fail to reveal the “intricate complexity of work and family life” (Crouter & Pirretti, 2006, p. 452).

As expected, after accounting for the effects associated with a number of controls, including actual salary, we observe that global pay satisfaction is negatively related to WFC; employees who are more satisfied with their pay report lower levels of WFC. The negative relationship between pay satisfaction and WFC is consistent with Lawler's (1971) model of pay satisfaction. As per Lawler (1971), if employees are dissatisfied with their pay, they experience inequity because they perceive discrepancy between what they believe they should be paid and what they are actually paid. Thus, even when employees are highly paid, they may report high WFC because they perceive inequity. This reasoning is consistent with our results that reveal opposing results for actual pay and pay satisfaction. Actual employee salary and WFC show a positive relationship, suggesting that higher pay may indicate higher job responsibility and greater stress that will be positively related to WFC (Greenhaus & Beutell, 1985). How employees experience their pay (i.e., their pay satisfaction), and not just their actual pay, is related to WFC. We find that the correlation between pay satisfaction and actual pay is weak, with $r = .26$ in Time 1 and $r = .31$ in Time 2, which is similar to recent meta-analytic estimates ($\hat{p} = .23$; Judge et al., 2010). These results are also consistent with the pay satisfaction literature that reports differences in pay satisfaction even at similar levels of actual pay (Heneman & Judge, 2000). Thus, these findings reiterate the importance of considering actual pay and pay satisfaction as related yet distinct variables when predicting employee attitudes, perceptions, and behaviors. Our findings that pay satisfaction is negatively related to WFC and that actual pay is positively related to WFC intriguingly underscore the independence of these effects. This difference in the directionality of the relationship between actual pay, pay satisfaction, and WFC suggests that pay is related to job demands and responsibilities, whereas pay satisfaction is related to comparisons with similar others. That is, higher pay would likely be associated with higher work demands and responsibilities that would increase WFC, whereas higher pay satisfaction, indicating favorable comparison with others, would be associated with lower WFC. These varying effects of pay and pay satisfaction prompt more research to better understand their unique effects, particularly with respect to WFC.

The findings are also consistent with exchange theory propositions (Blau, 1964; Thibaut & Kelley, 1959); results suggest that employees adjust their WFC perceptions on the basis of their pay satisfaction. More generally, when employees perceive that their monetary rewards/or benefits within the employment relationship are unequal to their inputs (Adams, 1963, 1965), they view the exchange relationship less favorably; they perceive an inequitable exchange between family time and work time. Thus, norms of reciprocity (Emerson, 1976; Gouldner, 1960) also undergird the pay satisfaction–WFC relationship: the more satisfied employees are with their pay, the less they perceive that work-related strain and time demands hinder them in fulfilling family responsibilities. Such a view is also congruent with spillover theory, which suggests that feelings of pay satisfaction occurring in the work domain will likely transfer to the family domain and decrease perceptions of WFC (Staines, 1980).

We find the facets of satisfaction with benefits and pay structure/administration to be negatively related to WFC. Benefits include indirect compensations such as health insurance, which, in the context of WFC, are particularly important because lower benefits may increase employee strain when, for example, healthcare needs threaten the family. Pay structure/administration alludes to the process and rationale of pay distribution within the organizational hierarchy. We find lower satisfaction with pay structure/administration to be related to higher WFC; such dissatisfaction may especially influence perceptions of procedural justice (Folger & Konovsky, 1989; McFarlin & Sweeney, 1992), and these negative perceptions may spill into family life. Although somewhat surprising, the stronger effect of pay structure on WFC may be an artifact of the organizational setting of this study: a large public university. In an economic climate of reduced funding and budget deficits, pay levels were relatively modest, especially when comparing the percentage salary increase (9.1 percent) over the two-year study period to the percentage increase in the consumer price index (6.7 percent) over the same timeframe; that is, after accounting for the rise in consumer price index, the increase of the salary in real—not nominal—terms was 1.15 percent (Bureau of Labor Statistics, 2011). In such a scenario, issues of consistency in pay policies and communication about pay issues, which are assessed by the pay structure/administration facet, are likely to be extremely relevant.

In line with suggestions to more carefully incorporate demographic moderators in WF research (Byron, 2005; Casper et al., 2007; Eby et al., 2005; Voydanoff, 2002), we consider both non-job-related (gender and number of dependents) and job-related (tenure and education) demographic variables that are relevant for employee compensation (Miceli & Lane, 1991; Pelled, 1996; Pelled et al., 1999). Consistent with expectations, number of dependents and employee education moderate the relationship between pay satisfaction and WFC. Higher pay satisfaction can reduce WFC but not as effectively for employees who report higher job inputs (more dependents, higher educational attainment); the presence of these job inputs make it harder for pay satisfaction to offset WFC. Employees' higher inputs thus appear to influence their equity perceptions and reduce the importance of pay satisfaction in mitigating WFC.

Some unexpected findings surface regarding the moderators. Although consistent with earlier findings in WF research (e.g., Ford et al., 2007), we fail to find that gender moderates the relationship between pay satisfaction and WFC. Future studies might still wish to incorporate gender when studying pay satisfaction and its correlates, given the income gap between men and women (Blau & Kahn, 2000). A closer focus on pay satisfaction dimensions may also be fruitful for future research. For instance, women may consider certain dimensions of pay satisfaction (e.g., benefits such as parental leave or subsidized child care) and interpersonal work rewards (Ross & Mirowsky, 1996) as being more significant and thus evince different relationships.

We also did not find tenure to be a significant moderator of the relationship between pay satisfaction and WFC. It may be that the type of conflict (role, strain, and time; Stephens & Sommer, 1996) between high-tenure and low-tenure employees may differ even though both lower tenure and higher tenure employees experience WFC (Eby et al., 2005). This issue is beyond the scope of this study, but future studies could examine these forms of conflict in light of Bruck et al. (2002), who found that job satisfaction was more strongly related to behavior-based conflict than to time-based or strain-based conflict.

Our study cannot decipher the motives underlying the moderation results. We are unclear whether an adverse relationship occurs between pay satisfaction and WFC for employees with more dependents because they need more pay to support their families or whether they believe they should be paid more because they are exchanging more family time for work time than employees with fewer dependents. Two alternative explanations for this result are plausible: employee needs (McClelland, 1985; Sweeney, McFarlin, & Inderrieden, 1990) or social exchange (Lambert, 2000). Future research should examine employee motives as potential mediators of the pay satisfaction–WFC relationship. Similarly, given the differential relationships of pay satisfaction with procedural and distributive justice (McFarlin & Sweeney, 1992), we also suggest that WF research should incorporate the complex relationships between different types of justice (procedural, distributive, and interactional) and pay satisfaction (Morgeson, Campion, & Maertz, 2001; Tekleab, Bartol, & Liu, 2005).

Practical implications

Kossek and Friede (2006) highlighted that organizations have three main mechanisms for providing WF support: instituting formal supportive human resource policies, designing jobs and enhancing employment conditions with families in mind, and establishing supportive organizational cultures. In a similar vein, we emphasize that pay issues are relevant to the experience of WFC and that organizations should carefully focus on the terms and conditions of employment, similar to their increasing focus on WF policies (Kelly, 2006). Employee compensation shapes more than employee attitudes and behavioral reactions to the organization (Shaw et al., 1999) and is related to more than organizational outcomes such as performance and turnover (Currall, Towler, Judge, & Kohn, 2005); it also extends to the family domain by influencing WFC. Our findings suggest that pay satisfaction perceptions are one input that determines whether work demands are perceived as incompatible with family obligations. This reinforces that economic functions of work are critical to human life (George & Brief, 1990). Furthermore, given our multiyear timeframe, this association between pay satisfaction and WFC transcends economic circumstances; it is an ongoing concern that organizations must address.

Yet, organizational WF programs are likely to vary in costs. For example, providing benefits that help employees fulfill their care responsibilities (childcare, eldercare, and emergency care) would cost more than providing support groups (networking groups for informational and psychological support; Kossek & Friede, 2006). Both types of WF programs, however, would be highly beneficial for employees who may be unable to pay for professional care or to find external sources that can provide comfort. In addition, the organization's practices for pay administration are also pertinent for WFC and consistent with the importance of referents (Law & Wong, 1998). Sensitivity in determining and communicating pay issues is thus essential for organizations from a WFC perspective.

Finally, the weak relationship between actual pay and pay satisfaction suggests that increasing pay may be minimally efficacious in increasing pay satisfaction. From an organizational perspective, therefore, greater attention is needed to addressing equity and justice perceptions to increase pay satisfaction. Doing so is particularly important from a WFC perspective; whereas we find actual pay to be associated with higher WFC, we find pay satisfaction to be associated with lower WFC. Thus, organizations should

consider actual pay and pay satisfaction as two separate mechanisms that influence WFC, and direct efforts toward enhancing pay satisfaction.

Limitations

Although our study addresses several research needs for examining questions related to WFC and pay satisfaction, limitations do exist. Our study focuses on a single organization. Compensation systems vary on the basis of organizational strategic objectives, and these can cause various pay and benefits configurations (Milkovich & Newman, 2002), which could limit the study's generalizability. Nevertheless, focusing on a single organization could also be a potential strength because we can better account for unique features of the organizational context (e.g., the organization's compensation strategy) that may influence findings. Furthermore, our key constructs are employee perceptions that may vary depending on the design of a compensation system, but they all refer to a specific system. Focusing on a single organization minimizes confounding effects associated with WF policies. Yet, even in a single organization, supervisors may differentially apply or use WF policies (Kossek & Ozeki, 1998). The use of repeated-measures panel data accounts for such “unobserved variables” (Cohen et al., 2003) that may vary across employees and minimizes the possibility that such extraneous factors influence results.

Researchers have frequently called for longitudinal data to be used in WF research (Casper et al., 2007; Parasuraman & Greenhaus, 2002) and indeed in the wider organizational literature (George & Jones, 2000). Although such longitudinal designs facilitate an understanding of cause–effect associations, they are insufficient for conclusively establishing directional causality unless the research design includes experimental conditions with random assignment (Casper et al., 2007; Crouter & Pirretti, 2006). Therefore, similar to the recommendation of Kelloway et al. (1999) to interpret findings from panel data, we suggest that these results should be considered a strong effort to associate pay satisfaction and WFC. Furthermore, the significant time lag in our study (two years) may fail to capture more frequent fluctuations in our hypothesized relationships. Given the emerging use of experience sampling methodology in WF research (e.g., Song, Foo, & Uy, 2008), future research could use shorter time lags to assess the pay satisfaction–WFC relationship. Finally, although WFC perceptions could predict pay satisfaction, on the basis of prior theoretical and empirical work (Heneman & Judge, 2000; Lawler, 1971; Williams et al., 2006), we predicted and found that pay satisfaction is associated with WFC. Nevertheless, the relationship between pay satisfaction and WFC may be bi-directional, and we encourage future research to probe that potential.

In summary, we use a 2-wave repeated-measures panel dataset and provide evidence that pay satisfaction is related to WFC. We also observe that education and number of dependents play moderating roles in this relationship. Our findings highlight that it is critical for organizations and researchers to focus on employee perceptions of pay and the influence of these perceptions on WFC.

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References

- Adams, J. S. (1963). Toward an understanding of inequity. *Journal of Abnormal and Social Psychology*, 67, 422–436.
- Adams, J. S. (1965). Inequity in social exchange. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 2, pp. 267–299). New York, NY: Academic.
- Aguinis, H., & Stone-Romero, E. F. (1997). Methodological artifacts in moderated multiple regression and their effects on statistical power. *Journal of Applied Psychology*, 82, 192–206.
- Aryee, S., Budhwar, P. S., & Chen, Z. X. (2002). Trust as a mediator of the relationship between organizational justice and work outcomes: Test of a social exchange model. *Journal of Organizational Behavior*, 23, 267–285.
- Baltes, B. B., & Heydens-Gahir, H. A. (2003). Reduction of work-family conflict through the use of selection, optimization, and compensation behaviors. *Journal of Applied Psychology*, 88, 1005–1018.

- Bhave, D. P., Kramer, A., & Glomb, T. G. (2010). Work family conflict in work groups: Social information processing, support, and demographic dissimilarity. *Journal of Applied Psychology*, 95, 145–158.
- Bianchi, S. M., & Raley, S. B. (2005). Time allocation in families. In S. M. Bianchi, L. M. Casper, & R. B. King (Eds.), *Work, family, health, and well-being* (pp. 21–42). Mahwah, NJ: Lawrence Erlbaum.
- Blau, P. (1964). *Exchange and power in social life*. New York, NY: Wiley.
- Blau, F., & Kahn, L. M. (2000). Gender differences in pay. *The Journal of Economic Perspectives*, 14, 75–99.
- Boles, J. S., Howard, W. G., & Donofrio, H. H. (2001). An investigation into the inter relationships of work-family conflict, family-work conflict and work satisfaction. *Journal of Managerial Issues*, 13, 376–390.
- Bruck, C. S., Allen, T. D., & Spector, P. E. (2002). The relation between work-family conflict and job satisfaction: A finer-grained analysis. *Journal of Vocational Behavior*, 60, 336–353.
- Bureau of Labor Statistics (2011). Consumer price index history table. Retrieved from <ftp://ftp.bls.gov/pub/special.requests/cpi/cpiiai.txt>
- Byron, K. (2005). A meta-analytic review of work-family conflict and its antecedents. *Journal of Vocational Behavior*, 67, 169–198.
- Casper, W. J., Eby, L. T., Bordeaux, C., Lockwood, A., & Lambert, D. (2007). A review of research methods in IO/OB work-family research. *Journal of Applied Psychology*, 92, 28–43.
- Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). *Applied multiple regression/correlation analysis for the behavioral sciences* (3rd ed.). Mahwah, NJ: Lawrence Erlbaum.
- Colquitt, J. A., Conlon, D. E., Wesson, M. J., Porter, C. O. L. H., & Ng, K.Y. (2001). Justice at the millennium: A meta-analytic review of 25 years of organizational justice research. *Journal of Applied Psychology*, 86, 425–445.
- Coltrane, S. (2000). Research on household labor: Modeling and measuring social embeddedness of routine family work. *Journal of Marriage and the Family*, 62, 1208–1233.
- Crouter, A. C., & Pirretti, A. E. (2006). Longitudinal research on work and family issues. In M. Pitt-Catsouphes, E. E. Kossek, & S. Sweet (Eds.), *The work and family handbook* (pp. 451–468). Mahwah, NJ: Lawrence Erlbaum.
- Crouter, A. C., Tucker, C. J., Head, M. R., & McHale, S. M. (2004). Family time and the psychosocial adjustment of adolescent siblings and their parents. *Journal of Marriage and the Family*, 66, 147–162.
- Currall, S. C., Towler, A. J., Judge, T. A., & Kohn, L. (2005). Pay satisfaction and organizational outcomes. *Personnel Psychology*, 58, 613–640.
- Dulebohn, J., & Werling, S. (2007). Compensation research past, present, and future. *Human Resource Management Review*, 17, 191–207.
- Eby, L. T., Casper, W. J., Lockwood, A., Bordeaux, C., & Brinley, A. (2005). Work and family research in IO/OB: Content analysis

- and review of the literature (1980–2002). *Journal of Vocational Behavior*, 66, 124–197.
- Ehrenberg, R. G., & Smith, R. S. (2000). *Modern labor economics*. New York, NY: Addison-Wesley.
- Emerson, R. M. (1976). Social exchange theory. *Annual Review of Sociology*, 2, 335–362.
- Fields, D. L. (2002). *Taking the measures of work: A guide to validated scales for organizational research and diagnosis*. Thousand Oaks, CA: Sage.
- Folger, R., & Konovsky, M. A. (1989). Effects of procedural and distributive justice on reactions to pay raise decisions. *Academy of Management Journal*, 32, 115–130.
- Ford, M. T., Heinen, B. A., & Langkamer, K. L. (2007). Work and family satisfaction and conflict: A meta-analysis of cross-domain relations. *Journal of Applied Psychology*, 92, 57–80.
- Fortner, M. R., Crouter, A. C., & McHale, S. M. (2004). Division of labor and working-class women's well-being across the transition to parenthood. *Journal of Family Psychology*, 18, 225–236.
- Fredriksen-Goldsen, K. I., & Scharlach, A. E. (2001). *Families and work: New directions in the twenty-first century*. New York, NY: Oxford University Press.
- George, J. M., & Brief, A. P. (1990). The economic instrumentality of work: An examination of the moderating effects of financial requirements and sex on the pay-life satisfaction relationship. *Journal of Vocational Behavior*, 37, 357–368.
- George, J. M., & Jones, G. R. (2000). The role of time in theory and theory building. *Journal of Management*, 26, 657–684.
- Gouldner, A. (1960). The norm of reciprocity. *American Sociological Review*, 25, 161–178.
- Goulet, L. R., & Singh, P. (2002). Career commitment: A reexamination and an extension. *Journal of Vocational Behavior*, 61, 73–91.
- Greenberg, J. (1987). A taxonomy of organizational justice theories. *Academy of Management Review*, 12, 9–22.
- Greenhaus, J. H., & Beutell, N. J. (1985). Sources of conflict between work and family roles. *Academy of Management Review*, 10, 76–88.
- Hammer, L. B., Allen, E., & Grigsby, T. D. (1997). Work-family conflict in dual-earner couples: Individual and crossover effects of work and family. *Journal of Vocational Behavior*, 50, 185–203.
- Heneman H.G., & Judge, T.A. (2000). Compensation attitudes. In S. L. Rynes, & B. Gerhart (Eds.), *Compensation in organizations: Current research and practice* (pp. 61–203). San Francisco, CA: Jossey-Bass.
- Heneman H. G., & Schwab, D. P. (1985). Pay satisfaction: Its multidimensional nature and measurement. *International Journal of Psychology*, 20, 129–141.
- Hochschild, A. R. (1997). *The time bind: When work becomes home and home becomes work*. New York, NY: Metropolitan Books.
- Homans, C.G. (1961). *Social behavior: Its elementary forms*. New York, NY: Harcourt, Brace, & World.

- Judge, T. A. (1993a). Validity of the dimensions of the pay satisfaction questionnaire: Evidence of differential prediction. *Personnel Psychology*, 46, 331–355.
- Judge, T. A. (1993b). Does affective disposition moderate the relationship between job satisfaction and voluntary turnover? *Journal of Applied Psychology*, 78, 395–401.
- Judge, T. A., & Colquitt, J. A. (2004). Organizational justice and stress: The mediating role of work-family conflict. *Journal of Applied Psychology*, 89, 395–404.
- Judge, T. A., & Hulin, C. L. (1993). Job satisfaction as a reflection of disposition: A multiple source causal analysis. *Organizational Behavior and Human Decision Processes*, 56, 388–421.
- Judge, T. A., Piccolo, R. F., Podsakoff, N. P., Shaw, J. C., & Rich, B. L. (2010). The relationship between pay and job satisfaction: A meta-analysis of the literature. *Journal of Vocational Behavior*, 77, 157–167.
- Judge, T. A., & Welbourne, T. M. (1994). A confirmatory investigation of the dimensionality of the pay satisfaction questionnaire. *Journal of Applied Psychology*, 79, 461–466.
- Jurgensen, C. E. (1978). Job preferences (What makes a job good or bad?). *Journal of Applied Psychology*, 63, 267–276.
- Kelloway, E. K., Gottlieb, B. H., & Barham, L. (1999). The source, nature, and direction of work and family conflict: A longitudinal investigation. *Journal of Occupational Health Psychology*, 4, 337–346.
- Kelly, E. L. (2006). Work-family policies: The United States in international perspective. In M. Pitt-Catsouphes, E. E. Kossek, & S. Sweet (Eds.), *The work and family handbook* (pp. 99–123). Mahwah, NJ: Lawrence Erlbaum.
- Kossek, E. E., & Friede, A. (2006). The business case: Managerial perspectives on work and the family. In M. Pitt-Catsouphes, E. E. Kossek, & S. Sweet (Eds.), *The work and family handbook* (pp. 611–626). Mahwah, NJ: Lawrence Erlbaum.
- Kossek, E. E., & Nichol, V. (1992). The effects of on-site child care on employees' attitudes and performance. *Personnel Psychology*, 45, 485–509.
- Kossek, E. E., & Ozeki, C. (1998). Work-family conflict, policies, and the job-life satisfaction relationship: A review and directions for organizational behavior-human resources research. *Journal of Applied Psychology*, 83, 139–149.
- Kutner, M. H., Nachtsheim, C. J., & Neter, J. (2004). *Applied linear regression models*. New York, NY: McGraw-Hill.
- Lambert, S. J. (2000). Added benefits: The link between work-life benefits and organizational citizenship behavior. *Academy of Management Journal*, 43, 801–815.
- Law, K. S., & Wong, C. (1998). Relative importance of referents on pay satisfaction: A review and test of a new policy-capturing approach. *Journal of Occupational and Organizational Psychology*, 71, 47–60.
- Lawler, E. E. (1971). *Pay and organizational effectiveness: A psychological view*. New York, NY: McGraw-Hill.
- Lewis, S., & Cooper, C. L. (1999). The work-family research agenda in changing contexts. *Journal of Occupational Health Psychology*, 4, 382–393.

- Lievens, F., Sanchez, J. I., Bartram, D., & Brown, A. (2010). Lack of consensus among competency ratings of the same occupation: Noise or substance? *Journal of Applied Psychology, 95*, 562–571.
- Marks, S. R. (2006). Understanding diversity of families in the 21st century and its impact on the work-family area of study. In M. Pitt-Catsouphes, E. E. Kossek, & S. Sweet (Eds.), *The work and family handbook*. Mahwah, NJ: Lawrence Erlbaum.
- McClelland, D. C. (1985). *Human motivation*. Glenview, IL: Scott, Foresman.
- McFarlin, D. B., & Sweeney, P. D. (1992). Distributive and procedural justice as predictors of satisfaction with personal and organizational outcomes. *Academy of Management Journal, 35*, 626–637.
- Miceli, M. P., & Lane, M. C. (1991). Antecedents of pay satisfaction: A review and extension. In K. Rowland & J. Ferris (Eds.), *Research in personnel and human resources management* (Vol. 9, pp. 235–309). Greenwich, CT: JAI.
- Michel, J. S., Kotrba, L. M., Mitchelson, J. K., Clark, M. A., & Baltes, B. C. (2011). Antecedents of work-family conflict: A meta-analytic review. *Journal of Organizational Behavior, 32*, 689–725.
- Milkovich, G. T., & Newman, J. M. (2002). *Compensation*. Madison, WI: McGraw-Hill Irwin.
- Morgeson, F. P., Campion, M. A., & Maertz, C. P. (2001). Understanding pay satisfaction: The limits of a compensation system implementation. *Journal of Business and Psychology, 16*, 133–149.
- Mowday, R. T., & Colwell, K. A. (2003). Employee reactions to unfair outcomes in the workplace: The contributions of Adams's equity theory to understanding work motivation. In L. Porter, G. Bigley, & R. M. Steers (Eds.), *Motivation and work behavior*, (7th ed., pp. 222–254). Burr Ridge, IL: McGraw-Hill.
- Netemeyer, R. G., Boles, J. S., & McMurrian, R. (1996). Development and validation of work-family conflict and family-work conflict scales. *Journal of Applied Psychology, 81*, 400–410.
- Parasuraman, S., & Greenhaus, J. H. (2002). Toward reducing some critical gaps in work-family research. *Human Resource Management Review, 12*, 299–312.
- Parker, V. A., & Hall, D. T. (1992). Conclusion: Expanding the domain of family and work issues. In S. Zedeck (Ed.), *Work, families, and organizations*. (pp. 432–451). San Francisco, CA: Jossey-Bass.
- Pelled, L. H. (1996). Demographic diversity, conflict, and work group outcomes: An intervening process theory. *Organization Science, 7*, 615–631.
- Pelled, L. H., Eisenhardt, K. M., & Xin, K. R. (1999). Exploring the black box: An analysis of work group diversity, conflict, and performance. *Administrative Science Quarterly, 44*, 1–28.
- Rabe-Hesketh, S., & Skrondal, A. (2008). *Multilevel and longitudinal modeling using Stata*. College Station, TX: Stata Press.
- Ross, C. E., & Mirowsky, J. (1996). Economic and interpersonal work rewards: Subjective utilities of men's and women's compensation. *Social Forces, 75*, 223–246.
- Roth, P. L., & BeVier, C. A. (1998). Response rates in HRM/OB survey research: Norms and correlates, 1990–1994. *Journal of Management, 24*, 97–117.
- Rynes, S. L., Gerhart, B., & Minette, K. A. (2004). The importance of pay in employee motivation: Discrepancies between what people say and what they do. *Human Resource Management, 43*, 381–394.

- Sayer, L. C. (2005). Gender, time and inequality: Trends in women's and men's paid work, unpaid work and free time. *Social Forces*, 84, 285–303.
- Shaw, J. D., Duffy, M. K., Jenkins, G. D., & Gupta, N. (1999). Positive and negative affect, signal sensitivity, and pay satisfaction. *Journal of Management*, 25, 189–206.
- Smith, P. C., Kendall, L., & Hulin, C. L. (1969). *The measurement of satisfaction in work and retirement*. Chicago, IL: Rand McNally.
- Song, Z., Foo, M.D., & Uy, M. (2008). Mood spillover and crossover among dual-earner couples: A cell phone event sampling study, *Journal of Applied Psychology*, 93, 443–452.
- Staines, G. L. (1980). Spillover versus compensation: A review of the literature on the relationship between work and nonwork. *Human Relations*, 33, 111–129.
- Stephens, G. K., & Sommer, S. M. (1996). The measurement of work to family conflict. *Educational and Psychological Measurement*, 56, 475–486.
- Sweeney, P. D., & McFarlin, D. B. (1993). Workers' evaluations of the "ends" and the "means": An examination of four models of distributive and procedural justice. *Organizational Behavior and Human Decision Processes*, 55, 23–40.
- Sweeney, P. D., McFarlin, D. B., & Inderrieden, E. J. (1990). Using relative deprivation theory to explain satisfaction with income and pay level: A multistudy examination. *Academy of Management Journal*, 33, 423–436.
- Tekleab, A. G., Bartol, K. M., & Liu, W. (2005). Is it pay levels or pay raises that matter to fairness and turnover? *Journal of Organizational Behavior*, 26, 899–921.
- Thibaut, J., & Kelley, H. H. (1959). *The social psychology of groups*. New York, NY: Wiley.
- Towers Perrin. (2003). *Working today: Understanding what drives employee engagement*. The 2003 Towers Perrin Report.
- Valcour, M. (2007). Work-based resources as moderators of the relationship between work hours and satisfaction with work-family balance. *Journal of Applied Psychology*, 92, 1512–1523.
- Voydanoff, P. (2002). Linkages between the work-family interface and work, family, and individual outcomes. *Journal of Family Issues*, 23, 138–164.
- Walster, E., Berscheid, E., & Walster, G. W. (1973). New directions in equity research. *Journal of Personality and Social Psychology*, 25, 151–176.
- West, B. T., Welch, K. B., & Galecki, A. T. (2007). *Linear mixed models*. Boca Raton, FL: Chapman & Hall/CRC.
- Williams, M. L., McDaniel, M. A., & Nguyen, N. T. (2006). A meta-analysis of the antecedents and consequences of pay level satisfaction. *Journal of Applied Psychology*, 91, 392–413.
- Yang, N., Chen, C. C., Choi, J., & Zou, Y. (2000). Sources of work-family conflict: A Sino-U.S. comparison of the effects of work and family demands. *Academy of Management Journal*, 43, 113–123.

Zvonkovic, A. M., Notter, M. L., & Peters, C. L. (2006). Family studies: Situating everyday family life at work, in time, and across contexts. In M. Pitt-Catsouphes, E. E. Kossek, & S. Sweet (Eds.), *The work and family handbook* (pp. 141–164). Mahwah, NJ: Lawrence Erlbaum.