

## FLEXIBLE WORK PRACTICES: A SOURCE OF CAREER PREMIUMS OR PENALTIES?

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**The present research builds theory regarding how use of flexible work practices (FWPs) affects employees' career success. We integrate theory on signaling and attributions and propose that managers interpret employees' use of FWPs as a signal of high or low organizational commitment, depending on whether managers make productivity or personal life attributions, respectively, for employees' FWP use. Managers' perceptions of employees' commitment, in turn, shape employees' career success. Field- and laboratory-based studies provide strong support for the hypothesis that FWP use results in career premiums when managers make productivity attributions and some support for the hypothesis that FWP use results in career penalties when managers make personal life attributions.**

Employees with flexibility are more engaged in their jobs and committed to helping their company succeed . . . workplace flexibility has a real impact on productivity.

Carlson (2005: 48)

Don't telecommute. Working from home or part-time makes it harder for your boss to know you. Do arrive early and stay late . . . make your commitment visible by pulling long hours.

Yang (2009: 65)

Recent years have seen a dramatic increase in the prevalence of flexible work practices (FWPs), which are practices that afford employees control over when, where, or how much they work (cf. Glass & Estes, 1997; Kelly & Moen, 2007). A study of American organizations with at least 50 employees found that 79 percent of organizations offer

flexible schedules (i.e., control over starting and stopping times), 50 percent offer telecommuting (i.e., working outside the office), 38 percent offer compressed work weeks (i.e., completing a week's work in fewer than five days), 29 percent offer job shares (i.e., two employees are responsible for one job), and 27 percent offer part-time work (Galinsky, Bond, & Sakai, 2008). The popularity of FWPs is not surprising, given their potential benefits. From an employee perspective, use of FWPs is associated with high levels of job satisfaction and low levels of job stress (Baltes, Briggs, Huff, Wright, & Neuman, 1999; Gajendran & Harrison, 2007). From an organizational perspective, FWPs facilitate the attraction and retention of top talent, given that they are highly desired by the contemporary workforce (Blair-Loy & Wharton, 2002). Offering FWPs may therefore present a win-win situation that confers simultaneous benefits to employees and organizations alike.

In spite of their potential benefits, surprisingly few clear conclusions exist regarding how FWPs affect employees' extrinsic career success—defined as easily observable work outcomes that are indicative of employee effectiveness, such as salary or job level (cf. Ng, Eby, Sorensen, & Feldman, 2005). As the above quotes illustrate, the popular press is replete with conflicting opinions regarding whether FWPs have positive or negative consequences, a tension that is mirrored in academic

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theory and research. Drawing from evidence that FWP's facilitate performance (Baltes et al., 1999; Gajendran & Harrison, 2007), some scholars have theorized and found that employees who use FWP's receive career premiums, in that they earn higher salaries than those who do not use FWP's (Gariety & Shaffer, 2001; Weeden, 2005). In direct contrast, others have theorized that employees who use FWP's are perceived to lack commitment (e.g., McCloskey & Igbaria, 2003), and at least one study has shown that working mothers who used FWP's received career penalties, in that use of FWP's had a negative effect on wage growth (Glass, 2004). Thus, evidence paints a contradictory picture regarding the effect of FWP's on career success and provides limited understanding regarding when FWP's are a source of career premiums versus penalties.

We seek new insight into the relationship between FWP use and career success by accounting for managers' attributions for why employees use FWP's. A few studies have shown that FWP's are means to different ends, including increased work productivity and personal life accommodation (e.g., Sullivan & Lewis, 2001), yet the different reasons that underlie employees' FWP use have yet to be integrated into models of career success. This omission is surprising, given that managers view employees whose behavior they attribute to organization-serving motives, such as the desire to increase productivity, more favorably than employees whose behavior they attribute to self-serving motives, such as the desire for personal life accommodation (cf. Allen & Rush, 1998; Eastman, 1994). We therefore integrate psychological theory on attributions (e.g., Jones & Davis, 1965) with economic theory on signaling (e.g., Spence, 1973) and theorize that managers interpret employees' FWP use as a signal of high commitment if they attribute FWP use to a desire to increase productivity, but as a signal of low commitment if they attribute FWP use to a desire for personal life accommodation. Managers' perceptions of employees' commitment, in turn, carry career consequences because managers grant pay raises, promotions, and other rewards to employees whom they perceive as committed (e.g., Shore, Barksdale, & Shore, 1995). We therefore identify a common mechanism—perceived commitment—through which FWP's may facilitate or constrain career success.

We tested our theory in a series of two studies. The first was a field study of a *Fortune* 500 organization, in which we sought evidence that FWP use had either positive or negative consequences for perceived employee commitment, depending on managers' FWP attributions, and that perceived

commitment in turn shaped employees' career success. We controlled for employees' self-reported commitment and job performance ratings in the analyses to provide evidence that the career consequences of FWP use are driven by managers' perceptions, not employees' attitudes or behaviors. We supplemented the field study with a laboratory-based experiment that provides a causal test of the effects of FWP use and attributions.

The present research expands extant theory in several ways. First, we introduce the construct of FWP attributions and posit that attributions play an important role in the relationship between flexible work practice use and career success. Second, researchers have suggested that perceptions of low commitment may explain the potential negative effects of FWP's on career success but have not assessed perceived commitment directly (e.g., Glass, 2004; Weeden, 2005). We extend past work by hypothesizing that FWP use can have either positive or negative consequences for perceived commitment and by testing these relationships explicitly. Third, we integrate insights from psychology and economics and thus answer calls for interdisciplinary perspectives on the consequences of FWP's (cf. Kelly et al., 2008). Finally, our framework offers practical insights for enabling employees to enjoy the benefits of FWP's while avoiding potential drawbacks.

## THEORY DEVELOPMENT

Scholarly work has produced two contradictory narratives regarding FWP use and career success. One body of research supports the "happy worker story" (Weeden, 2005: 478), which suggests that FWP's facilitate employee performance and, ultimately, career success. For example, telecommuters face few interruptions and can tailor their environments to meet idiosyncratic preferences that enhance productivity. Similarly, employees with flexible schedules can adapt their hours to meet business needs and work at the times of day when they are most productive (cf. Baltes et al., 1999; Gajendran & Harrison, 2007). Supporting the happy worker story, meta-analytic evidence indicates that employees who use practices such as telecommuting, flexible schedules, and compressed work weeks outperform those who do not (Baltes et al., 1999; Gajendran & Harrison, 2007). The positive linkage between FWP use and performance suggests that FWP's facilitate career success, given that employees with high performance are likely to move up the ranks in organizations (Ng et al., 2005). Indeed, a handful of cross-sectional studies have shown that employees who telecommute or

work flexible schedules earn higher salaries than employees who do not use FWP (Gariety & Shaffer, 2001; Weeden, 2005).

In spite of some evidence that FWPs facilitate career success, a distinct narrative—the signal of low commitment hypothesis—suggests that the consequences of FWP use are negative, not positive. According to signaling theory, a classic framework in economics, managers use employees' observable behaviors to make inferences about characteristics that are harder to observe, including organizational commitment (Spence, 1973). Drawing from signaling theory, scholars have theorized that managers interpret employees' FWP use as a signal that employees have personal life responsibilities that diminish their commitment to their organization. Managers therefore penalize employees who use FWPs by denying them pay raises, promotions, and other career-related rewards (McCloskey & Igarria, 2003; Williams, 2000). Consistently with this hypothesis, a longitudinal study of working mothers in professional jobs revealed that use of flexible schedules and telecommuting was negatively related to wage growth (Glass, 2004).

In summary, research indicates that FWP use can result in either positive or negative career consequences. Past work does not provide evidence regarding the mechanisms that explain the inconsistent findings, but it has yielded two narratives that are grounded in different assumptions regarding why employees use FWPs. Specifically, the happy worker story is based on the assumption that employees use FWPs to increase work productivity, whereas the signal of low commitment hypothesis is based on the assumption that employees use FWPs to accommodate their personal lives. Extant scholarship indicates that the different assumptions—or attributions—managers make regarding the causes of employees' behavior have consequences for managers' perceptions of employees' commitment and tendencies to grant employees career-related rewards (Allen & Rush, 1998; Eastman, 1994). Thus, accounting for managers' attributions for why employees use FWPs may help explain when their use is likely to incur career premiums versus penalties.

### **FWP Attributions**

A key tenet of attribution theory is that individuals generate causal explanations for the behavior of others, and the same behavior may be attributed to different causes (Jones & Davis, 1965; Kelley & Michela, 1980). Notably, individuals do not always make attributions for others' behavior, but instead

are more likely to form attributions if a behavior is unexpected rather than expected (e.g., Pyszczynski & Greenberg, 1981; Wong & Weiner, 1981). Although increasingly common, FWP use is a departure from the standard model of work that often requires special permission (cf. Kelly & Moen, 2007). Thus, FWP use is not an expected workplace behavior, which suggests that managers are likely to form attributions for why employees use FWPs.

Scholars have identified two classes of managerial attributions for employees' behavior: attributions that employees' behavior is motivated by a benevolent desire to help the organization and attributions that employees' behavior is motivated by an egoistic desire to help the self, regardless of the organizational consequences (cf. Allen & Rush, 1998; Bolino, 1999; Eastman, 1994). The distinction between organization- and self-serving attributions is important because managers form positive impressions of employees whose behavior they attribute to a desire to help their organization, but negative impressions of employees whose behavior they attribute to a desire to help themselves (Allen & Rush, 1998; Eastman, 1994; Halbesleben, Bowler, Bolino, & Turnley, 2010; Johnson, Erez, Kiker, & Motowidlo, 2002). Thus, attribution theory suggests that FWPs may have divergent consequences, depending on the extent to which managers form organization-serving and self-serving attributions for employees' FWP use.

We investigate this proposition by focusing on one organization-serving FWP attribution, work productivity, and one self-serving FWP attribution, personal life accommodation. We define productivity attributions as perceptions that an employee uses FWPs to increase work performance and efficiency, for example by structuring work around business needs (e.g., making international calls during nonstandard work hours). Alternatively, we define personal life attributions as perceptions that an employee uses FWPs to accommodate nonwork activities, for example by structuring work around childcare. In keeping with prior theory (cf. Bolino, 1999), we conceptualize different FWP attributions as distinct, but not mutually exclusive; managers may attribute an employee's FWP use to both productivity and personal life motives. Although additional FWP attributions may exist, our focus on productivity and personal life attributions is consistent with evidence that increased productivity and personal life accommodation are two primary motives that underlie FWP use (Shockley & Allen, *in press*; Sullivan & Lewis, 2001).

## **FWP Attributions, Perceived Commitment, and Career Success**

FWP use is likely to send opposite signals regarding employees' affective organizational commitment—defined as attachment to and identification with an organization (Meyer & Allen, 1991; Shore, Bommer, & Shore, 2008)—depending on managers' FWP attributions. In particular, FWP use should have positive consequences for perceived commitment when managers attribute FWP use to an organization-serving motive, namely, the desire to increase work productivity. Managers often hold employees to an ideal worker norm, a standard dictating that employees show unwavering organizational dedication (Fuegen, Biernat, Haines, & Deaux, 2004; Landers, Rebitzer, & Taylor, 1996; Williams, 2000). If a manager believes an employee uses FWPs to increase productivity, the manager is likely to interpret the employee's FWP use as a signal that the employee is taking additional steps to maximize contributions to the organization and is a highly committed, ideal worker (cf. Landers et al., 1996). Thus, managers should perceive employees whose FWP use they attribute to a desire to increase productivity as more committed than employees who do not use FWPs. Alternatively, when managers do not make productivity attributions, FWP use is unlikely to positively impact perceived commitment.

In direct contrast, FWP use should have negative consequences for perceived commitment when managers attribute FWP use to a self-serving motive, namely, the desire for personal life accommodation. If a manager makes personal life attributions for an employee's FWP use, the manager is likely to perceive the employee as invested in his or her personal life. From a manager's perspective, employees' personal life investments are problematic because resources, such as time and energy, tend to be viewed as a fixed pie (Thompson & Hastie, 1990). As a result, managers are likely to assume that employees' personal life investments deplete the resources available for work (Becker, 1985; Goode, 1960; Greenhaus & Beutell, 1985) and therefore believe that employees who use FWPs for personal life reasons lack sufficient commitment and are in violation of the ideal worker norm. Thus, managers should perceive employees whose FWP use they attribute to a desire for personal life accommodation as less committed than employees who do not use FWPs. Alternatively, when managers do not make personal life attributions, FWP use is unlikely to negatively impact perceived commitment.

We theorize that the effect of FWP use on perceived commitment is contingent on managers' FWP attributions. Yet real differences in the commitment of employees for whom managers make productivity versus personal life attributions may exist and provide an alternative explanation for our hypotheses. We therefore predict that the proposed effects of FWP use and attributions will emerge over and above any effect of employees' self-reported commitment.

*Hypothesis 1. Managers perceive employees who use FWPs as more committed than employees who do not use FWPs when managers' productivity FWP attributions are high, but not when they are low, when employees' self-reported commitment is controlled.*

*Hypothesis 2. Managers perceive employees who use FWPs as less committed than employees who do not use FWPs when managers' personal life FWP attributions are high, but not when they are low, when employees' self-reported commitment is controlled.*

Perceived employee commitment, in turn, is likely to shape employees' career success. Committed employees benefit an organization through their devotion and loyalty, and managers are likely to reciprocate these benefits in the form of career-related rewards (Settoon, Bennett, & Liden, 1996; Shore et al., 2008). Indeed, research shows that managers grant pay raises, promotions, and other rewards (e.g., extra training, high-profile assignments) to employees they perceive as highly committed (Allen & Russell, 1999; Shore et al., 1995, 2008). Managers' perceptions of employees' commitment should therefore be positively related to employees' career success.

The notion that perceived commitment enhances career outcomes is consistent with evidence that employees achieve higher levels of career success when viewed favorably by powerful individuals, including their managers (Ng et al., 2005). Yet career success is also a function of employees' job behaviors, especially their performance (Ng et al., 2005). Employees who are strong performers are likely to be perceived as highly committed, and performance may therefore be a third variable that explains the effect of perceived commitment on career success. To rule out this alternative explanation, we hypothesize that perceived commitment will have a positive relationship to employees' career success that goes over and above employees' job performance.

*Hypothesis 3. Managers' perceptions of employees' commitment are positively related to*

indicators of employees' career success (i.e., salary, job level, career-related reward recommendations), when employees' job performance is controlled.

In summary, we propose that the effect of employees' FWP use on perceived commitment is contingent on managers' FWP attributions and that perceived commitment in turn shapes employees' career success. Our theory therefore implies that perceived commitment mediates the combined effects of FWP use and attributions on career success. Figure 1 presents our hypothesized model for the relationship between FWP use and career success.

*Hypothesis 4. Perceived commitment mediates the effects of employees' FWP use and managers' FWP attributions on employees' career success.*

**STUDY 1: FIELD STUDY**

To test Hypotheses 1–4, we conducted a field study of a *Fortune* 500 organization. We gathered survey data from matched employee-manager pairs who worked in the organization's corporate headquarters. The surveys assessed FWP use, FWP attributions, commitment, and career rewards. We also gathered archival data on salary, job level, and performance ratings.

**Methods**

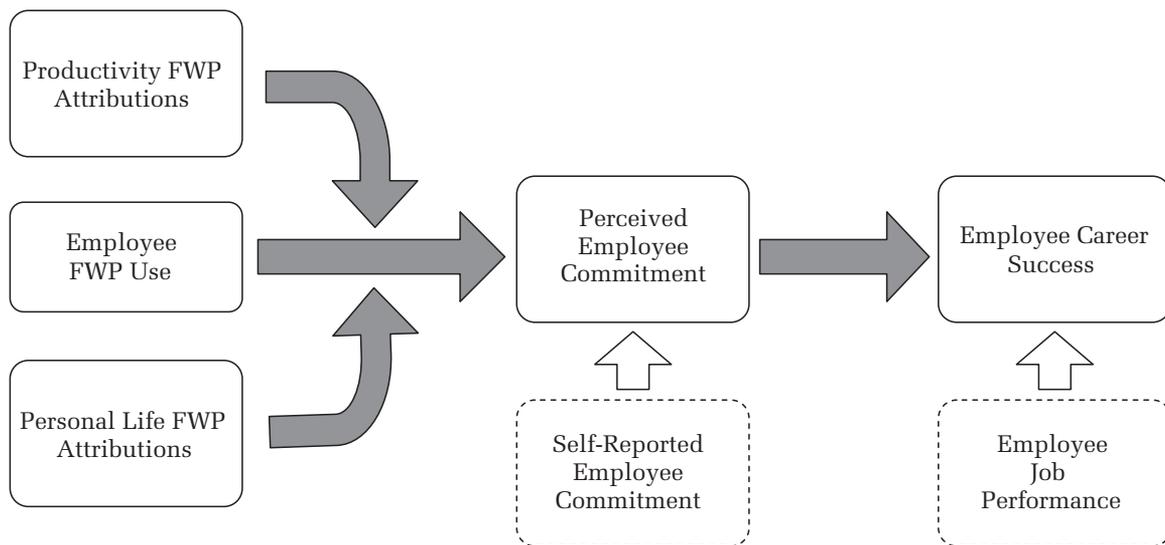
**Survey procedures.** We e-mailed an online survey to 5,579 employees who belonged to one of two

employee groups, one that focused on industry issues and one that focused on networking. A total of 1,834 employees responded to the survey (33 percent response rate). We then sent an online survey to the employees' direct managers and asked each to report on a focal employee. If a manager supervised more than one respondent employee, the manager completed one survey per employee with the caveat that no manager completed more than three surveys. If a manager supervised more than three employees, we randomly selected three employees for the manager to report on. We therefore sent out 1,470 manager surveys, not 1,834. The managers responded to 566 of the surveys (39 percent response rate). Each survey was conducted over a three-week period, during which we sent two reminder e-mails. We eliminated employee and manager surveys with large amounts of missing data, which resulted in 482 matched employee-manager pairs.<sup>1</sup>

**Participants.** The final sample included 482 employees and 366 managers (71 percent of managers rated one employee; 26 percent, two; and 3 percent, three). Most employees were white (90%) and female (59%). The employees' mean age was 44.49 years, and their mean tenure was 17.22 years. Most managers were white (87%), and 34 percent

<sup>1</sup> To assess the potential impact of survey nonresponse, we conducted an interest analysis (Rogelberg & Stanton, 2007). Specifically, we reran the analyses controlling for managers' and employees' interest in the survey topic, which was assessed via survey items. Controlling for interest had no impact on the study findings.

**FIGURE 1**  
**Hypothesized Model for the Relationship between Flexible Work Practice Use and Career Success<sup>a</sup>**



<sup>a</sup> Dashed borders indicate control variables.

were female. The managers' mean age was 48.03 years and their mean tenure was 21.63 years. On average, the managers had supervised the focal employees for 2.41 years. The employee-manager pairs worked in a variety of functions, including product development (28%), information technology (10%), engineering (10%), quality (8%), manufacturing (8%), and sales and marketing (5%). Less than 5 percent of the remaining employee-manager pairs worked in any one function. Among the employees, 77 percent held professional jobs (e.g., paralegal, customer service representative, analyst), and 23 percent held management jobs (e.g., auditing manager, training manager, marketing manager). Of the managers, 11 percent held professional jobs, and 89 percent held management jobs.

**Employee FWP use.** The manager survey included questions regarding whether a focal employee used each available FWP, including flexible schedules (68%), occasional telecommuting (48%), routine telecommuting (8%), part-time work (4%), compressed work weeks (3%), and job shares (< 1%). We created a dummy variable that captured managers' reports of employees' use of any FWP (1 = "yes," 0 = "no") and found that 77 percent of the employees used at least one FWP. We also asked employees to report whether they used FWPs and compared manager and employee reports of employees' FWP use. Most employees reported using one or more FWPs (76%), and 73 percent of the manager-employee pairs agreed on the employees' FWP use. The lack of perfect agreement is not surprising, given that many employees held comparatively autonomous jobs and their managers may have been unaware that they occasionally worked from home, for example. In keeping with this explanation, manager-employee agreement was stronger for visible FWPs (job share: 100%; part-time work: 99%; compressed work week: 97%; routine telecommuting: 93%) than for less visible FWPs (occasional telecommuting: 64%; flexible schedule: 64%). We used the manager-reported FWP use variable in the analyses because we theorized that consequences of FWP use are driven by managers' perceptions. Running the analyses on employee-manager pairs who agreed on FWP use produced the same results.

**FWP attributions.** Managers who indicated that a focal employee used FWPs completed an attributions measure, including three productivity items and four personal life items (1 = "strongly disagree," 7 = "strongly agree"). Example items include "The focal employee uses FWPs because he/she is more productive when using FWPs" (productivity attributions) and "The focal employee uses FWPs because he/she has obligations

in his/her personal life that need to be fulfilled" (personal life attributions). We developed the measure for this project and therefore conducted an exploratory factor analysis (EFA) with principal axis factoring and varimax rotation. The EFA supported a two-factor solution ( $\lambda_1 = 3.08$ ,  $\lambda_2 = 2.09$ ,  $\lambda_{3-7} < .53$ ; 63.87% variance explained), in which the productivity ( $\alpha = .86$ ) and personal life ( $\alpha = .85$ ) items loaded on separate factors (see the Appendix for the items and loadings).

Managers who indicated that a focal employee did not use FWPs were instructed to skip the attributions measure because it is not possible to make FWP attributions if an employee does not use FWPs. As a result, using the raw attributions variables in the analyses and thereby excluding FWP nonusers would have prevented us from testing Hypotheses 1 and 2, which involve comparisons between FWP users and nonusers. We therefore created two new variables by multiplying FWP use (1 = "yes," 0 = "no") by the raw attributions variables. Following recommendations (Aiken & West, 1991), we mean-centered the raw attributions variables before multiplying them by FWP use. The resulting variables equaled zero for FWP nonusers and ranged from  $-3.67$  to  $2.33$  (the productivity attributions response scale, after centering) or  $-4.12$  to  $1.88$  (the personal life attributions response scale, after centering) for FWP users. None of the raw attributions scores fell exactly at the mean, and a zero therefore always indicated FWP nonuse. We used these variables, instead of the raw attributions variables, in all of the analyses.

Although the variables we created are the product of FWP use and attributions, they do not have the same meaning as interaction terms because the FWP use by attributions interactions are not fully crossed (i.e., attributions do not exist for FWP nonusers). We controlled for FWP use in the analyses, and the variables we created thus provide no additional information about FWP nonusers because nonusers have a value of zero on both the FWP use variable and the newly created variables. As a result, these variables capture the main effect of FWP attributions among FWP users. We therefore refer to these variables as the attributions variables, not interaction terms, and describe how we used them to test Hypotheses 1 and 2 in the Results section.

Some managers (13%) indicated that focal employees used FWPs but did not complete the attributions measure. It is possible that flexibility is a required component of some jobs (e.g., sales representatives), and questions regarding why employees use FWPs thus seemed irrelevant. Missingness on the FWP attributions variables was not correlated with the other study variables ( $-.04 \leq r \leq .06$ ,

all n.s.), which decreases the potential for missing data to influence empirical results. Moreover, simulation studies indicate that missing data do not threaten the validity of findings, even if 20 percent of cases are missing (Roth & Switzer, 1995; Switzer, Roth, & Switzer, 1998). We used pairwise deletion to handle missing data, a technique that provides more accurate results than listwise deletion (Roth & Switzer, 1995; Switzer et al., 1998). We also explored other techniques, including listwise deletion ( $n = 419$ ), mean replacement, midpoint replacement, and multiple imputation (see Rubin [1987] for a description), which each produced the same results.

**Commitment.** Managers completed a six-item perceived affective commitment measure ( $\alpha = .85$ ), and employees completed a six-item self-reported affective commitment measure ( $\alpha = .80$ ); both were adapted from Meyer, Allen, and Smith (1993). Respective example items include: "This employee really feels as if [X]'s problems are his/her own" and "I really feel as if [X]'s problems are my own" (1 = "strongly disagree," 7 = "strongly agree").<sup>2</sup>

**Employee career success.** We gathered two objective career success indicators, salary and job level, from the organization's records several months after the surveys were conducted. Salary reflected base and variable pay, and larger job level values indicated higher levels in the organization. We also gathered a subjective career success indicator; the manager survey included a five-item reward recommendations measure ( $\alpha = .92$ ) adapted from Allen, Russell, and Rush (1994). An example item is "I would recommend this employee for a challenging, high-profile assignment" (1 = "strongly disagree," 7 = "strongly agree").

**Employee performance.** We conceptualized performance as an antecedent to career success and therefore gathered performance appraisals that were conducted several months before the survey data were collected. The performance ratings included two dimensions, task and leadership performance, which both ranged from one to five. The internal consistency of the two dimensions was low ( $\alpha = .24$ ), and we therefore treated them as separate variables.

**Supplemental controls.** In addition to self-reported commitment and job performance, we included several supplemental controls. When esti-

imating career success, we controlled for human capital factors related to career success, including employee age (in years), hours worked per week, organizational tenure (in years), and educational attainment (1 = "high school," 5 = "doctorate") (Ng et al., 2005). When estimating perceived commitment, we controlled for employee gender (1 = "female," 0 = "male"), parental status (1 = "parent," 0 = "nonparent"), marital status (1 = "married," 0 = "not married"), and age (in years), to account for the possibility that FWP use is more likely to be interpreted as a signal of low commitment for employees with certain demographic characteristics (cf. Glass, 2004; Weeden, 2005). We also controlled for whether employees used a practice that reduced the number of hours worked per week (i.e., job shares and part-time work; 1 = "yes," 0 = "no") because managers may be more likely to assume that these employees lack commitment.

Managers may view some employees more favorably than others, and these perceptions may have influenced each of the manager-reported variables (FWP attributions, perceived commitment, etc.). To reduce the likelihood that common method variance provides an alternative explanation for our findings, we controlled for managers' reports of employees' competence (two items,  $\alpha = .74$ ) and warmth (two items,  $\alpha = .83$ ), the two fundamental dimensions of person perception (Cuddy, Fiske, & Glick, 2004), in all of the analyses. Example items include: "How good-natured is this employee?" for warmth and "How ambitious is this employee?" for competence (1 = "not at all," 5 = "extremely").

We also asked employees to report why they used FWPs by completing a FWP motives measure (productivity:  $\alpha = .88$ ; personal life:  $\alpha = .89$ ; see the Appendix). FWP motives were not correlated with managers' FWP attributions (productivity:  $r = .13$ ; personal life:  $r = .07$ ; both n.s.), a finding that is consistent with attribution theory, which states that a range of perceptual biases influence managerial attributions (Green & Mitchell, 1979; Martinko, Harvey, & Douglas, 2007), and with empirical evidence that managers' and employees' reports of the causes of employees' behavior are unrelated ( $r = .02$ , n.s. [Wilhelm, Herd, & Steiner, 1993]). Moreover, controlling for FWP motives had no impact on the study findings. We therefore omitted the FWP motives variables from the analyses for the sake of parsimony.

**Analyses.** We used confirmatory factor analysis (CFA) to assess the factor structure of the study variables and structural equation modeling (SEM) to test our hypotheses. SEM allowed us to correct the multi-item study measures for unreliability, test the hypothesized relationships simultaneously,

<sup>2</sup> One commitment item captured a desire to spend the rest of one's career with the organization, which some have argued conflates commitment and turnover intentions (e.g., Solinger, van Olffen, & Roe, 2008). Dropping this item had no impact on the study findings.

**TABLE 1**  
**Descriptive Statistics for the Study 1 Variables<sup>a</sup>**

Variable	Mean	s.d.	1	2	3	4	5	6	7	8	9
1. Employee task performance	3.37	0.57									
2. Employee leadership performance	3.12	0.80	.15**								
3. Manager-rated employee competence	3.60	0.88	.17**	.17**	(.74)						
4. Manager-rated employee warmth	4.09	0.73	-.02	.10*	.16**	(.83)					
5. Employee age	44.49	9.22	-.16**	.07	-.15**	.04					
6. Employee hours worked per week	45.14	11.09	.06	.12**	.12**	.07	.12**				
7. Employee organizational tenure	17.22	9.93	-.05	.12**	-.10*	.02	.74**	.08			
8. Employee education	3.36	0.89	-.01	.23**	.06	-.01	.02	.07	-.08		
9. Employee marital status	0.82	0.38	-.01	.20**	.02	-.08	.09*	.05	.09	.18**	
10. Employee use of reduced hour FWP	0.04	0.19	-.03	-.04	-.10*	.12**	-.03	-.23**	.00	.01	.03
11. Employee gender	0.61	0.49	-.04	-.02	.08	.11*	-.11*	-.12**	-.13**	-.15**	-.09*
12. Employee parental status	0.59	0.49	-.04	.08	-.05	.03	-.07	.02	-.05	.01	.24**
13. Employee FWP use	0.80	0.40	.09*	.14**	.13**	.07	.07	.03	.11*	.08	.05
14. Manager productivity FWP attributions	4.67	1.27	-.02	-.01	.07	.07	.15**	.09	.09	-.07	-.06
15. Manager personal life FWP attributions	5.12	1.17	-.09	.04	.07	.00	-.15**	-.10*	-.20**	.02	-.06
16. Employee commitment	5.39	0.96	-.01	.08	.02	.10*	.21**	.10*	.26**	-.05	.09*
17. Perceived employee commitment	5.43	0.83	.05	.10*	.23**	.30**	.17**	.09*	.25**	.02	.02
18. Employee salary <sup>b</sup>	106.93	38.25	.06	.37**	.12**	.01	.41**	.19**	.43**	.42**	.19**
19. Employee job level	11.94	2.66	.05	.45**	.11*	.01	.33**	.20**	.38**	.46**	.21**
20. Reward recommendations	4.61	1.34	.30**	.25**	.53**	.25**	-.24**	.13**	-.16**	.17**	.05

and assess the fit of the data to the hypothesized model (Kline, 1998). We concluded that CFA and SEM models fit the data well if the comparative fit index (CFI) was .95 or greater, the root-mean-square error of approximation (RMSEA) was .06 or less, and the standardized root-mean-square residual (SRMR) was .08 or less (Hu & Bentler, 1999).

We used single-indicator SEM with reliability correction. Specifically, we averaged each multi-item scale to form a composite that served as a single indicator of the latent construct. Single-indicator SEM has the advantages of maximizing the sample size to estimated parameter ratio and facilitating model convergence, and it also tends to produce the same results as SEM models that use multiple indicators (Sass & Smith, 2006). To correct for unreliability, we set the error term of each composite to one minus the composite's reliability times the composite's variance (James, Mulaik, & Brett, 1982). To give the latent constructs the same scale as the composites, we set the path from the composites to the corresponding latent constructs to one (cf. Seibert, Kraimer, & Liden, 2001). We also ran the analyses setting the paths from the composites to the latent constructs to the square root of the composites' reliability (James et al., 1982) and found the same results. We treated single-item measures (e.g., FWP use) as manifest variables and assumed they were measured without error, which provides a conservative model test.

We used maximum-likelihood estimation with robust standard errors because employees were partially nested within managers. This estimation

procedure prevents nesting from introducing a downward bias into the standard errors of the parameter estimates and thus increasing the likelihood of type I errors. The analyses were conducted with version 5 of Mplus. Table 1 presents descriptive statistics for the Study 1 variables.

## Results

**CFA.** To examine the factor structure of the study measures, we conducted a CFA of the latent constructs (i.e., multi-item scales) in our model, including productivity and personal life FWP attributions, perceived employee commitment, self-reported employee commitment, reward recommendations, and perceived employee warmth and competence. A seven-factor model, in which each scale indicated a distinct latent factor, fit the data well (CFI = .95, RMSEA = .05, SRMR = .04,  $\chi^2[329] = 795.54$ ). To test for common method variance, we tested a second model in which the employee-rated scale indicated one latent factor and the six manager-rated scales indicated a second latent factor (cf. Conway & Lance, 2010). The fit of this model was both poor (CFI = .47, RMSEA = .16, SRMR = .18,  $\chi^2[349] = 4,969.60$ ) and significantly worse than the fit of the seven-factor model ( $\Delta\chi^2[20] = 4,174.06$ ,  $p < .01$ ).

**SEM.** The structural model we tested, which appears in Figure 2, fit the data well (CFI = .98, RMSEA = .04, SRMR = .02,  $\chi^2[30] = 57.45$ ). We first examined the coefficients for the main effects of FWP use and attributions. The path from FWP

**TABLE 1**  
**(Continued)**

Variable	10	11	12	13	14	15	16	17	18	19	20
1. Employee task performance											
2. Employee leadership performance											
3. Manager-rated employee competence											
4. Manager-rated employee warmth											
5. Employee age											
6. Employee hours worked per week											
7. Employee organizational tenure											
8. Employee education											
9. Employee marital status											
10. Employee use of reduced hour FWPs											
11. Employee gender	.07										
12. Employee parental status	.10*	-.03									
13. Employee FWP use	.07	-.03	.06								
14. Manager productivity FWP attributions	-.14*	-.06	-.09		(.86)						
15. Manager personal life FWP attributions	.07	.05	.25**		.16**	(.85)					
16. Employee commitment	.03	.10*	.07	.06	.01	-.01	(.80)				
17. Perceived employee commitment	-.02	.01	-.02	.12**	.22**	.01	.29**	(.85)			
18. Employee salary <sup>b</sup>	-.04	-.20**	.01	.10*	.15**	.00	.17**	.24**			
19. Employee job level	-.05	-.22**	.04	.11*	.11*	.04	.16**	.23**	.93**		
20. Reward recommendations	-.05	-.04	.01	.12**	.17**	.13*	.04	.30**	.21**	.23**	(.92)

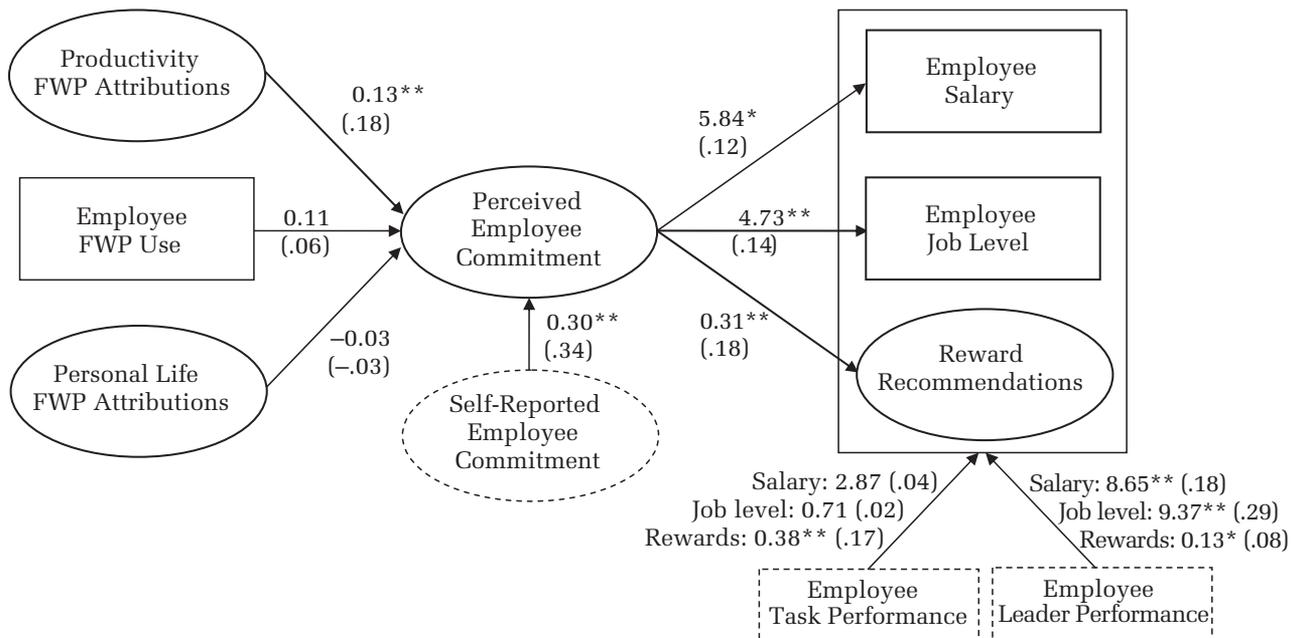
<sup>a</sup> “FWP” is flexible work practice. Values below the diagonal are correlations, and values on the diagonal in parentheses are interitem reliabilities. Correlations for the raw FWP attributions variables are reported ( $n = 307$ ). For all other variables,  $n = 482$ .

<sup>b</sup> In thousands of dollars.

\*  $p < .05$

\*\*  $p < .01$

**FIGURE 2**  
**Structural Equation Modeling Results for Study 1<sup>a</sup>**



<sup>a</sup> Unstandardized path coefficients ( $b$ ) are reported, with standardized coefficients ( $\beta$ ) in parentheses. Boxes represent manifest variables; ovals represent latent variables; and dashed borders indicate control variables. Supplemental control variables and composite indicators of latent variables are not depicted for ease of presentation.  $n = 482$ .

\*  $p < .05$

\*\*  $p < .01$

use to perceived commitment was not significant ( $b = 0.11$ , n.s.) and indicated no difference in the perceived commitment of FWP users and nonusers. The path from productivity attributions to perceived commitment was significant ( $b = 0.13$ ,  $p < .01$ ) and indicated that productivity attributions were positively related to perceived commitment among employees who use FWPs. Alternatively, the path from personal life attributions to perceived commitment was not significant ( $b = -0.03$ , n.s.).<sup>3</sup>

Hypotheses 1 and 2 state that the effect of FWP use on perceived commitment is contingent on managers' FWP attributions; however, we could not include FWP use by attributions interaction terms in the SEM analyses. We created the attributions variables used in the analyses by multiplying FWP use by the raw attributions variables, but the resulting variables do not have the same meaning as interaction terms and instead capture the main effect of attributions among FWP users (see the Methods section). We therefore tested Hypotheses 1 and 2 by assessing the significance of the simple slopes for FWP use at different levels of attributions (Aiken & West, 1991). Specifically, the attributions variables used in the analyses include information about both FWP use and attributions, and we could therefore use the path coefficients for the FWP use variable and the attributions variables to calculate the simple slope for FWP use at high and low levels of attributions. This approach is equivalent to testing if the predicted value for FWP nonusers differs from that of FWP users with high and low attributions.

Hypothesis 1 states that managers perceive FWP users as more committed than FWP nonusers when productivity FWP attributions are high, but not when they are low. We therefore tested the simple slope for FWP use at one standard deviation above and below the productivity attributions mean. Productivity attributions were centered at zero, which means that high and low levels equaled the standard deviation ( $\pm 1.27$ ). We took the coefficient for FWP use ( $b = 0.11$ ) and added the product of the coefficient for productivity attributions ( $b = 0.13$ ) and the high productivity attributions value, 1.27

(Aiken & West, 1991). The resulting simple slope was significant ( $b = 0.28$ ,  $t = 2.34$ ,  $p < .05$ ) and indicated that managers perceived employees who used FWPs as more committed than employees who did not use FWPs when productivity attributions were high. Alternatively, the simple slope for FWP use was not significant when productivity attributions were low ( $b = -0.06$ ,  $t = -0.47$ , n.s.). Thus, Hypothesis 1 was supported (see Figure 3A).

Hypothesis 2 states that managers perceive FWP users as less committed than FWP nonusers when personal life FWP attributions are high, but not when they are low. The simple slope for FWP use was not significant when personal life attributions were high ( $b = 0.08$ ,  $t = 0.65$ , n.s.) or low ( $b = 0.15$ ,  $t = 1.27$ , n.s.). Thus, Hypothesis 2 was not supported (see Figure 3B).

Hypothesis 3 states that perceived commitment positively relates to career success. In support of Hypothesis 3, the paths from perceived commitment to salary ( $b = 5.84$ ,  $p < .05$ ), job level ( $b = 4.73$ ,  $p < .01$ ), and reward recommendations ( $b = 0.31$ ,  $p < .01$ ) were all significant.

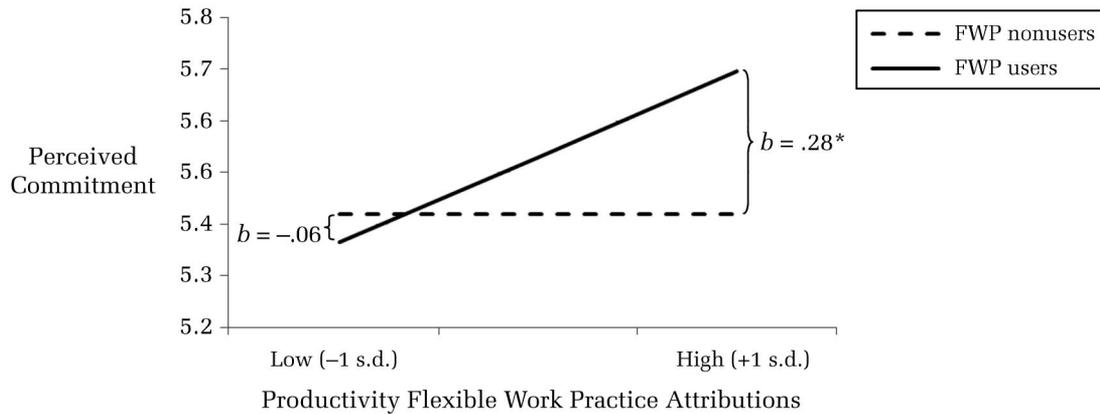
Hypothesis 4 states that perceived commitment mediates the effects of FWP use and attributions on career success. This hypothesis implies a mediated-moderation model, in which the effect of FWP use on perceived commitment is contingent on FWP attributions, and perceived commitment in turn predicts career success. We used the Edwards and Lambert (2007) procedure to test if FWP use had a significant indirect effect on career success, through perceived commitment, when productivity attributions for FWP use were high, but not when they were low. We did not run the analyses for personal life attributions because FWP use was unrelated to perceived commitment when personal life attributions were both high and low.

To calculate the indirect effects, we multiplied the simple slope of FWP use when productivity attributions were high and low and by the coefficient for the effect of perceived commitment on each career success variables. We used 1,000 bootstrap samples to construct 95% bias-corrected confidence intervals ( $CI_{95\%}$ ) around the indirect effects and concluded that an indirect effect was significant if the  $CI_{95\%}$  excluded zero (Edwards & Lambert, 2007). At high levels of productivity attributions, FWP use had a significant indirect effect on salary ( $b = 1.06$ ,  $CI_{95\%} = 0.21$  to 2.69), job level ( $b = 0.85$ ,  $CI_{95\%} = 0.22$  to 2.07), and reward recommendations ( $b = 0.08$ ,  $CI_{95\%} = 0.02$  to 0.17), through perceived commitment. Alternatively, at low levels of productivity attributions, FWP use did not have a significant indirect effect on salary ( $b = -0.07$ ,  $CI_{95\%} = -1.09$  to 0.75), job level ( $b = -0.05$ ,  $CI_{95\%} =$

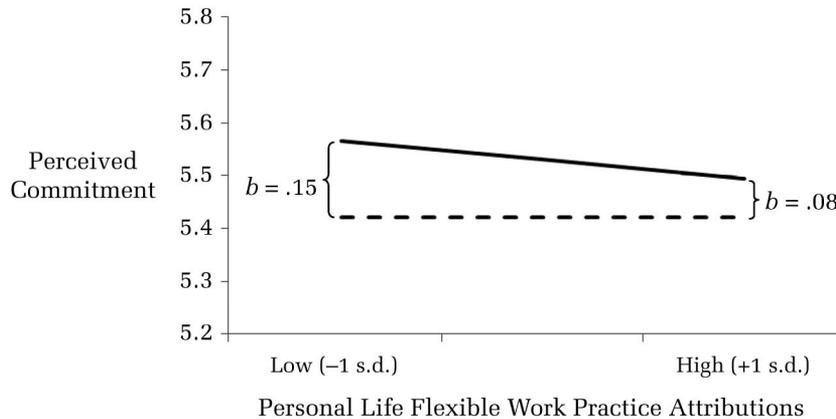
<sup>3</sup> To demonstrate that the attribution variables used in the analyses capture main effects among FWP users, we limited the sample to FWP users and retested the model omitting FWP use and using the raw attributions variables ( $CFI = .98$ ,  $RMSEA = .05$ ,  $SRMR = .02$ ,  $\chi^2 [27] = 51.91$ ). In the model based on the FWP users subsample, the attributions coefficients had the same direction and significance (productivity:  $b = 0.14$ ,  $p < .01$ ; personal life:  $b = -0.02$ , n.s.) as in the model based on the full sample of FWP users and nonusers.

**FIGURE 3**  
**The Effect of Flexible Work Practice Use and Attributions on Perceived Commitment in Study 1<sup>a</sup>**

**(A) Productivity Attributions**



**(B) Personal Life Attributions**



<sup>a</sup> The  $b$  values represent the simple slope of FWP use (i.e., the difference between users and nonusers) when attributions are high and low. We plotted attributions on the x-axis and FWP use as separate lines because FWP attributions are continuous variables and FWP use is a dichotomous variable. Plotting FWP use on the x-axis and low and high FWP attributions as separate lines has no impact on the simple slopes.

\* $p < .05$

-0.78 to 0.61), or reward recommendations ( $b = -0.01$ ,  $CI_{95\%} = -0.08$  to  $0.05$ ). Thus, Hypothesis 4 was supported for productivity attributions.<sup>4</sup>

**Additional analyses.** We used simple slope analyses to test Hypotheses 1 and 2 but were unable to include interaction terms in the analyses. To provide additional evidence that this methodology produced valid conclusions, we used a second approach to test these hypotheses.

<sup>4</sup> The mediated-moderation analyses could not be run in the program we used to conduct SEM. We therefore used regression to test for mediated moderation. Use of regression, instead of SEM, was a conservative approach because SEM includes a correction for unreliability that necessarily increases effect sizes, but regression does not.

To test Hypothesis 1, we categorized employees into three groups: FWP nonusers, FWP users with low productivity attributions (below the mean), and FWP users with high productivity attributions (at or above the mean). We created two dummy variables that indicated whether employees were in the high or low productivity attributions groups (1 = "yes," 0 = "no"). Thus, FWP nonusers were the comparison group for both dummy variables. We regressed perceived commitment on the dummy variables and the same controls used in the SEM analyses. The high productivity attributions variable was significant ( $b = 0.29$ ,  $p < .01$ ) and indicated that FWP users with high productivity attributions (mean = 5.65) were perceived as more committed than FWP nonusers (mean = 5.22). Al-

ternatively, the low productivity attributions variable was not significant ( $b = -0.01$ , *n.s.*, mean = 5.33). To test Hypothesis 2, we used the same procedure to categorize employees as FWP nonusers, FWP users with low personal life attributions, and FWP users with high personal life attributions, and we then created dummy variables for the low and high personal life attributions groups. Both dummy variables were unrelated to perceived commitment (low:  $b = 0.14$ , *n.s.*, mean = 5.48; high:  $b = 0.12$ , *n.s.*, mean = 5.47). Thus, the results of the additional test of Hypotheses 1 and 2 were consistent with the simple slope results.

## Discussion

Study 1 provides evidence that the relationship between FWP use and career success is contingent on managers' FWP attributions. Specifically, managers perceived FWP users as more committed than FWP nonusers, but only when they attributed FWP use to a desire to increase productivity. In addition, perceived commitment was positively related to career success, and it also mediated the combined effects of FWP use and productivity attributions on career success. These results emerged when we controlled for employees' self-reported commitment and job performance. Thus, the effects of FWP use were driven by managers' perceptions, not employees' attitudes or behaviors.

Alternatively, when managers made personal life FWP attributions, the perceived commitment of FWP users and nonusers did not differ. It is therefore possible that FWP use is not interpreted as a signal of low commitment when managers make personal life attributions. At the same time, alternative explanations for the null result exist. For example, personal life attributions were common in the Study 1 sample. When evaluating FWP users, 65 percent of managers at least slightly agreed that focal employees used FWPs for personal life reasons, and managers were more likely to make personal life attributions (mean = 5.12) than productivity attributions (mean = 4.67;  $t = 4.93$ ,  $p < .01$ ). Thus, Study 1 may indicate that FWP use that is attributed to a desire for personal life accommodation does not incur career penalties in settings where personal life attributions are common, leaving open the possibility that this behavior does incur career penalties in settings where personal life attributions are rare.

Study 1 had many strengths, including a large sample, data from matched employee-manager pairs, and objective indicators of career success, but also some limitations. First, several of the study variables were rated by managers. If managers' gen-

eral impressions of employees influenced multiple variables, common method variance may have shaped the results. To reduce common method variance, we collected data from different sources, interspersed other measures between the measures of interest, and emphasized that the surveys were anonymous (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Moreover, a CFA showed that the study variables captured distinct constructs, not managers' general impressions of the employees (Conway & Lance, 2010). We also directly accounted for managers' impressions by controlling for perceived employee warmth and competence. It is therefore unlikely that common method variance provides an alternative explanation for the findings. Second, Study 1 was correlational, and we therefore cannot draw causal conclusions. For example, although we hypothesized that FWP attributions cause perceived commitment, theories of motivated reasoning suggest that if a manager perceives an employee as highly committed, the manager may seek to form benevolent, organization-serving attributions for that employee (cf. Kunda, 1990). Thus, contrary to our theory, it is possible that perceived commitment causes productivity FWP attributions.

In light of these potential limitations, we conducted a laboratory-based experiment that allowed causal inferences and was immune to other potential limitations associated with field-based research (e.g., common method variance). In addition to providing a second test of the hypotheses that were supported in Study 1 (i.e., Hypotheses 1, 3, and 4), the laboratory experiment allowed additional insight into the consequences of personal life attributions (i.e., Hypothesis 2). Specifically, failure to support Hypothesis 2 in the laboratory would provide more conclusive evidence that FWP use does not lead to career penalties when managers make personal life attributions. Alternatively, support for Hypothesis 2 would suggest that the null field-based finding stems from a feature that is unique to Study 1 (organizational context, methodology, etc.).

## STUDY 2: LABORATORY EXPERIMENT

In Study 2 we used an experimental design to test Hypotheses 1–4. Specifically, we conducted an organizational simulation in which participants assumed the role of a manager in a consulting firm and evaluated an employee who was eligible for a promotion. We manipulated the employee's use of an FWP, flexible scheduling, and attributions for the employee's FWP use. Participants then rated their perceptions of the employee's commitment and the likelihood that they would recommend the employee for career-related rewards.

## Methods

**Participants.** The sample included 156 participants who were recruited from either a university subject pool open to all students and employees (65%) or graduate business classes (35%). The sample was 47 percent female, 69 percent white, 24 percent Asian, 3 percent black, and 1 percent Hispanic (3 percent reported other ethnicities), and the average age was 27.41 years. Most participants were employed (86%), and 48 percent had experience working as a manager. The majority of the participants were students (51 percent graduate, 37 percent undergraduate), and 12 percent were non-students. Participants received \$10, and the study took 20 minutes to complete.

**Procedures.** Participants were invited to participate in a study on the rules of thumb managers use to make decisions (cf. Heilman & Okimoto, 2008). They were asked to assume the role of a manager at a consulting firm and evaluate an employee who was eligible for a promotion. They received an information packet that included a memo about the employee's background, as well as the employee's résumé, most recent performance appraisal, and human resources (HR) file. The memo and résumé were modeled after materials used in previous work (Correll, Bernard, & Paik, 2007; Cuddy et al., 2004) and conveyed that the employee was in his or her mid-30s, had an MBA, and had ten years of work experience. The performance appraisal, which was also used in prior research (Allen et al., 1994; Allen & Russell, 1999), indicated that the employee's performance rating was 4.4 on a 5-point scale (4 = "above average," 5 = "excellent"). Finally, the HR file included various employment details (e.g., date of hire, position). After reviewing the information packet, participants completed perceived commitment and reward recommendations measures, as well as manipulation checks and demographic measures.

**Manipulations.** The study design was a two (employee gender) by five (FWP use and attributions) between-subjects design. We manipulated gender by using either a female name and feminine pronouns or a male name and masculine pronouns. We used the names "Sarah" and "Matthew" because they are common names that have been used in prior research (Correll et al., 2007). We manipulated gender because it would have been artificial to omit the employee's name from the information packet; however, we did not expect employee gender to influence the results and therefore treated the gender manipulation as a control variable.

We used the memo and HR file to manipulate the employee's use of an FWP and managerial FWP

attributions. The manipulation included four FWP use conditions and one FWP nonuse condition. In the FWP use conditions, the memo indicated that the employee "works a flexible schedule," and the HR file described the employee's work arrangements as "flexible schedule—varies work hours from day-to-day." In the FWP nonuse condition, the phrase "works a flexible schedule" was omitted, and work arrangements were described as "standard."

Within the four FWP use conditions, we manipulated FWP attributions by including a notes section in the HR file that was completed by the employee's manager. In the first FWP use condition, the manager attributed the employee's FWP use to a desire to increase work productivity. To develop the manipulation, we asked employees in the Study 1 sample to provide open-ended comments regarding why they used FWPs. Two common productivity motives were scheduling calls outside of standard work hours and adjusting work hours to meet deadlines. We therefore used the following productivity attributions manipulation:

Sarah/Matthew Anderson works a flexible schedule because a flexible schedule enables her/him to meet business needs. Specifically, the ability to vary her/his work hours from day-to-day allows Sarah/Matthew to better serve her/his clients (e.g., schedule calls outside of standard work hours to accommodate clients in different time zones) and to stay late when necessary to meet important deadlines.

The second and third FWP use conditions included personal life attributions. The open-ended FWP motives data gathered from the Study 1 sample revealed that childcare was the most common personal life FWP motive; however, indicating that a focal employee used FWPs to accommodate childcare needs would manipulate both FWP attributions and parental status. We therefore included two personal life attributions conditions: childcare and general. Including two personal life conditions allowed us to separate the effects of personal life attributions from the effects of parental status; however, we did not expect the results to differ between the two personal life conditions. The personal life attributions manipulations appear below:

Sarah/Matthew Anderson works a flexible schedule because a flexible schedule enables her/him to accommodate her/his personal life, and specifically her/his childcare needs. The ability to vary her/his work hours from day-to-day allows Sarah/Matthew to meet obligations in her/his family life by enabling her/him to organize her/his work around her/his children's schedules.

Sarah/Matthew Anderson works a flexible schedule because a flexible schedule enables her/him to accommodate her/his personal life (hobbies, friends, family, etc.). The ability to vary her/his work hours from day-to-day allows Sarah/Matthew to meet obligations in her/his personal life by enabling her/him to organize her/his work hours around her/his personal-life activities and responsibilities.

In the fourth FWP use condition, no FWP attribution was provided. Hypotheses 1 and 2 state that FWP use affects perceived commitment when productivity and personal life attributions are high (i.e., present), but not when they are low (i.e., absent). We therefore expected that the productivity and personal life attributions conditions would differ significantly from the FWP nonuse condition, but that the no attributions condition would not.

**Measures.** Participants completed a three-item perceived commitment measure ( $\alpha = .82$ ; adapted from Heilman and Okimoto [2008] and Meyer et al. [1993]) and a five-item reward recommendations measure ( $\alpha = .83$ ; adapted from Allen et al. [1994]). Example items include “This employee really views the organization’s problems as her/her own,” for perceived commitment; and “This candidate should be given challenging, high profile assignments,” for reward recommendations (1 = “strongly disagree,” 7 = “strongly agree”). A two-factor CFA model, in which each construct indicated a distinct latent factor, fit the data well (CFI = .98, RMSEA = .06, SRMR = .05,  $\chi^2[19] = 27.85$ ) and significantly better than a one-factor model (CFI = .71, RMSEA = .21, SRMR = .12,  $\chi^2[20] = 158.47$ ;  $\Delta\chi^2[1] = 130.62$ ,  $p < .01$ ).

We included several manipulation checks. Participants recalled if the employee used an FWP as

well as the employee’s gender, parental status, hours worked, and performance appraisal rating. In the FWP use conditions, participants made productivity attributions (“The employee works a flexible schedule to increase work productivity”) and personal life attributions (“The employee works a flexible schedule to accommodate his/her personal life”) for the employee’s FWP use (1 = “strongly disagree,” 7 = “strongly agree”). Participants also answered several demographic questions. We controlled for participant gender, age, and management experience in the analyses. Table 2 presents descriptive statistics for the Study 2 variables.

## Results

**Manipulation checks.** Participants accurately recalled whether employees used a flexible schedule ( $\chi^2 = 122.86$ ,  $p < .01$ ), as well as employee gender ( $\chi^2 = 152.05$ ,  $p < .01$ ) and parental status ( $\chi^2 = 133.14$ ,  $p < .01$ ). In addition, productivity attributions were higher in the productivity condition (mean = 6.27) than in the other FWP use conditions (mean = 3.40,  $t = 9.97$ ,  $p < .01$ ), and personal life attributions were higher in the personal life conditions (childcare: mean = 6.72,  $t = 11.32$ ,  $p < .01$ ; general: mean = 6.72,  $t = 11.65$ ,  $p < .01$ ) than in the other FWP use conditions (mean = 3.65). We used analysis of variance to verify that we manipulated FWP use and attributions, without manipulating perceptions of the employee’s work efforts or outcomes. The FWP use and attributions manipulation did not affect perceptions of the employee’s hours worked ( $F = 0.86$ , n.s.) or job performance ( $F = 0.67$ , n.s.). Thus, the possibility that partici-

TABLE 2  
Descriptive Statistics for the Study 2 Variables<sup>a</sup>

Variable	Mean	s.d.	1	2	3	4	5	6	7	8	9	10	11
1. Participant gender <sup>b</sup>	0.47	0.50											
2. Participant age	27.41	7.92	-.02										
3. Participant management experience <sup>c</sup>	0.48	0.50	.00	.48**									
4. Gender manipulation <sup>b</sup>	0.51	0.50	-.06	-.14	.04								
5. FWP use: Productivity attributions	0.19	0.40	.03	.24**	.08	.02							
6. FWP use: Childcare personal life attributions	0.21	0.41	.10	-.10	.05	.02	-.25**						
7. FWP use: General personal life attributions	0.21	0.41	.11	-.06	-.12	.03	-.25**	-.26**					
8. FWP use: No attributions	0.19	0.40	-.10	-.10	.02	-.01	-.24**	-.25**	-.25**				
9. FWP nonuse	0.20	0.40	-.15	.02	-.03	.00	-.24**	-.25**	-.26**	-.24**			
10. Perceived employee commitment	5.10	1.02	-.12	-.01	-.09	.09	.32**	-.23**	-.31**	.11	.12	(.82)	
11. Reward recommendations	5.22	0.95	.01	-.04	-.09	-.11	.00	-.07	-.11	.11	.08	.41**	(.83)

<sup>a</sup> “FWP” is flexible work practice. Values below the diagonal are correlations, and values on the diagonal in parentheses are interitem reliabilities. Variables 5–8 are dummy variables for each of the FWP use and attributions conditions (1 = “yes,” 0 = “no”);  $n = 156$ .

<sup>b</sup> 1 = “female,” 0 = “male.”

<sup>c</sup> 1 = “yes,” 0 = “no.”

\*  $p < .05$

\*\*  $p < .01$

pants perceived an employee as a harder worker or a better performer in some conditions than in others does not provide a plausible alternative explanation for any significant effects that emerge for the FWP use and attributions manipulation.

**Regression results.** To test Hypotheses 1 and 2, we created dummy variables for each of the FWP use conditions (1 = “yes,” 0 = “no”). Thus, the FWP nonuse condition was the comparison condition for each dummy variable. We then regressed perceived commitment on the dummy and control variables. Table 3 presents the regression results, and Table 4, the condition means.

Hypothesis 1 states that FWP users are perceived as more committed than nonusers when productivity attributions are high (i.e., present), but not when they are low (i.e., absent). In support of Hypothesis 1, the FWP use–productivity attributions coefficient was significant ( $b = 0.48$ ,  $p < .05$ ) and indicated that an employee was perceived as more committed in the productivity attributions condition than in the FWP nonuse condition. Alternatively, the FWP use–no attributions coefficient was not significant ( $b = 0.00$ , n.s.).

Hypothesis 2 states that FWP users are perceived as less committed than nonusers when personal life attributions are high (i.e., present), but not when they are low (i.e., absent). In support of Hypothesis 2, the FWP use–personal life attributions coefficients were significant (childcare:  $b = -0.67$ ; gen-

eral:  $b = -0.84$ ; both  $p$ 's  $< .01$ ) and indicated that an employee was perceived as less committed in the personal life attributions conditions than in the FWP nonuse condition. As noted above, the FWP use–no attributions coefficient was not significant ( $b = 0.00$ , n.s.).

We also explored the effect of employee gender on perceived commitment. The gender manipulation neither had a main effect on perceived commitment ( $b = 0.20$ , n.s.) nor interacted with any of the FWP use and attributions dummy variables (productivity:  $b = 0.66$ ; childcare personal life:  $b = -0.08$ ; general personal life:  $b = -0.37$ ; no attributions:  $b = 0.78$ ; all n.s.).

Hypothesis 3 states that perceived commitment is positively related to reward recommendations. We regressed reward recommendations on perceived commitment, after controlling for the FWP use and attributions conditions (see Table 3). In support of Hypothesis 3, perceived commitment was positively related to reward recommendations ( $b = 0.44$ ,  $p < .01$ ).

Hypothesis 4 states that perceived commitment mediates the effects of FWP use and attributions on reward recommendations. To test for mediation, we calculated the indirect effect of the FWP use and attributions dummy variables on reward recommendations, through perceived commitment (Shrout & Bolger, 2002). Specifically, we multiplied the coefficient for each of the FWP use and

TABLE 3  
Regression Results for Study 2<sup>a</sup>

Variable	Perceived Commitment		Reward Recommendations	
	<i>b</i>	$\beta$	<i>b</i>	$\beta$
<i>Step 1</i>				
Participant gender <sup>b</sup>	-.23	-.12	.00	.00
Participant age	.01	.05	.00	-.02
Participant management experience <sup>c</sup>	-.23	-.12	-.15	-.08
Gender manipulation <sup>b</sup>	.20	.10	-.21	-.11
<i>Step 2</i>				
FWP use: Productivity attributions	.48	.19*	-.12	-.05
FWP use: Childcare personal life attributions	-.67	-.27**	-.40	-.17
FWP use: General personal life attributions	-.84	-.34**	-.29	-.12
FWP use: No attributions	.00	.00	.06	.02
<i>Step 3</i>				
Perceived commitment manipulation			.44	.47**
$R^2_{\text{step 1}}$	.03		.02	
$\Delta R^2_{\text{step 2}}$	.22**		.03	
$\Delta R^2_{\text{step 3}}$			.16**	
$R^2_{\text{model}}$	.25**		.22**	

<sup>a</sup> “FWP” is flexible work practice. The FWP nonuse condition is the comparison condition for the FWP use and attributions dummy variables (1 = “yes,” 0 = “no”);  $n = 156$ .

<sup>b</sup> 1 = “female,” 0 = “male.”

<sup>c</sup> 1 = “yes,” 0 = “no.”

\*  $p < .05$

\*\*  $p < .01$

**TABLE 4**  
**Means and Standard Deviations for the FWP Use and Attributions Conditions in Study 2<sup>a</sup>**

Condition	Perceived Commitment		Reward Recommendations	
	Mean	s.d.	Mean	s.d.
FWP use: Productivity attributions	5.76 <sup>1</sup>	1.00	5.23 <sup>1</sup>	1.10
FWP use: Childcare personal life attributions	4.64 <sup>2</sup>	0.97	5.08 <sup>1</sup>	0.94
FWP use: General personal life attributions	4.49 <sup>2</sup>	0.81	5.01 <sup>1</sup>	1.05
FWP use: No attributions	5.33 <sup>3</sup>	0.92	5.43 <sup>1</sup>	0.71
FWP nonuse	5.34 <sup>3</sup>	0.85	5.37 <sup>1</sup>	0.90

<sup>a</sup> In each column, means that do not share superscripts significantly differ from one another ( $p < .05$ ). Significance tests are based on an analysis of covariance, in which the same control variables used in the main analyses were covariates, followed by a series of pairwise contrasts.

attributions dummy variables by the coefficient for the effect of perceived commitment on reward recommendations and used 1,000 bias-corrected bootstrap confidence intervals to test the significance of the resulting indirect effects. The indirect effect for the productivity attributions dummy variable was positive and significant ( $b = 0.21$ ,  $CI_{95\%} = .03$  to  $.45$ ) and the indirect effects for both personal-life attributions dummy variables were negative and significant (childcare:  $b = -0.29$ ,  $CI_{95\%} = -.53$  to  $-.09$ ; general:  $b = -0.37$ ,  $CI_{95\%} = -.64$  to  $-.19$ ). Alternatively, the indirect effect for the no attributions condition was nonsignificant ( $b = 0.00$ ,  $CI_{95\%} = -.20$  to  $.20$ ). The results support Hypothesis 4 and indicate that perceived commitment mediated the effect of the FWP use and attributions manipulation on reward recommendations.<sup>5</sup>

## Discussion

Study 2 provides further support for our theoretical model. FWP use and attributions had a causal effect on perceived commitment: FWP users were perceived as more committed than FWP nonusers when FWP use was attributed to a desire to increase work productivity, but FWP users were perceived as less committed than FWP nonusers when FWP use was attributed to a desire for personal life accommodation. Perceived commitment, in turn, was positively related to reward recommendations, an indicator of career success. Notably, FWP use was unrelated to perceived commitment when no attribution was provided. Thus, accounting for managers' FWP attributions furthers understanding of the relationship between FWP use and career success.

We found consistent support for the role of productivity attributions in the laboratory and in the field. Alternatively, we found support for the role of personal life attributions in the laboratory but not in the field. The results therefore suggest that flexible work practices can be a source of career penalties when managers make personal life FWP attributions (laboratory results) but that the penalty may not occur in all settings (field results). Another possibility is that the significant personal life attributions finding is unique to the laboratory and is unlikely to emerge in the field, yet this explanation is unlikely for two reasons. First, the productivity attributions findings were consistent across settings. Thus, if personal life attributions only have a significant effect in the laboratory, the specific aspect of the laboratory setting that produced the significant result (e.g., artificiality of the task) would have to be relevant to personal life attributions but not to productivity attributions. Second, several field-based studies have shown that FWPs and other family-friendly policies constrain salary when used by employees with significant personal life responsibilities (Glass, 2004; Judiesch & Lyness, 1999; Manchester, Leslie, & Kramer, 2010, 2013). These studies did not test mediating processes, but they provide suggestive field-based evidence that FWPs can constrain career success when attributed to personal life motives.

A notable strength of Study 2 is our use of an experimental design, which provides causal evidence for the effects of FWP use and attributions. At the same time, Study 2 is not without limitations. For example, most of the participants were students, only some of whom had management experience. We controlled for participants' management experience and conducted additional analyses that revealed that participants' management experience did not moderate the results. It is therefore unlikely that the findings would change if all participants were managers.

<sup>5</sup> None of the FWP use and attributions dummy variables had a direct effect on reward recommendations (see Table 3); however, this is not a necessary condition for establishing mediation (cf. Shrout & Bolger, 2002).

## GENERAL DISCUSSION

Flexible work practices are quickly becoming a fixture in the American workplace, yet extant scholarship paints a mixed picture regarding how their use affects career success. We sought to shed new light on past inconsistencies by integrating psychological theory on attributions with economic theory on signaling. In both field and laboratory settings, we found that managers interpret employees' FWP use as a signal of high commitment when they make productivity attributions for FWP use and that perceived commitment, in turn, has consequences for employees' career success. We also found that managers may interpret employees' FWP use as a signal of low commitment when they make personal life attributions for FWP use (Study 2), but that personal life attributions do not necessarily have negative consequences in all settings (Study 1).

### Implications for Theory and Practice

The present research contributes to theory on FWP use and career success by introducing the construct of FWP attributions. Drawing from attribution theory, we theorized and found that managers attribute employees' FWP use to different causes, including the desire to increase work productivity and the desire for personal life accommodation. We also substantiate the importance of FWP attributions by demonstrating that the consequences of FWP use for perceived commitment and, ultimately, career success are contingent on managers' FWP attributions.

Our theoretical framework also expands the signaling perspective on FWP use and career success. In keeping with signaling theory, we theorized that FWP use has consequences for career success because managers interpret it as a signal regarding employees' commitment. Although we are not the first to suggest that FWP use may be interpreted as a signal of low commitment (e.g., Glass, 2004), we depart from past theory by proposing that the signal is more complex; managers interpret FWP use as a signal of either high or low commitment, depending on their FWP attributions. As such, we identify perceived commitment as a common mechanism through which FWPs can result in career premiums or penalties.

In addition, our theory and findings for the role of productivity attributions provide a markedly different perspective on why FWP use may be a source of career premiums. A handful of studies have found that FWP use is positively related to salary (Gariety & Shaffer, 2001; Weeden, 2005), which

suggests that FWP use may facilitate career success. Yet the standard explanation for this finding is that FWP use enhances employees' job performance, which in turn has positive consequences for career success. Alternatively, we hypothesized that FWP use facilitates career success because managers interpret FWP use as a signal of high commitment, at least when FWP use is attributed to a desire to increase work productivity, and found support for this hypothesis controlling for employees' job performance. Thus, the present research moves beyond prior theory by providing evidence that the positive relationship between FWP use and career success is driven by managers' perceptions, not just employees' behaviors.

We also theorized that FWP use is likely to constrain career success when managers make personal life FWP attributions and found support for this hypothesis in the laboratory, but not in the field. On the one hand, the nonsignificant field-based finding should be interpreted with caution, given that the null result may stem from methodological or statistical artifacts. On the other hand, to the extent that artifacts do not account for it, the nonsignificant result may have implications for scholarly discourse on FWP use and career success. Prior work has not explicitly hypothesized and tested the notion that personal life attributions and perceived commitment explain why FWP use may lead to career penalties; however, scholars have frequently suggested that use of FWPs by employees with significant personal life responsibilities is likely to be interpreted as a signal of low commitment and to constrain career success (e.g., Glass, 2004; McCloskey, Igbaria, & Parasuraman, 1998; Weeden, 2005). Our findings suggest that the conclusion that FWP use that is attributed to a desire for personal life accommodation *necessarily* constrains career success may be premature, and they highlight the need for more complex theories that specify the conditions under which personal life FWP attributions are most and least likely to have negative career consequences.

FWPs have the potential to reduce work-life conflict (e.g., Gajendran & Harrison, 2007; but see also Michel, Kotrba, Mitchelson, Clark, and Baltes [2011]) and may therefore be an effective tool for enabling careers. Yet we found some evidence that FWP use constrains, rather than enables, career success when managers make personal life FWP attributions. Thus, from a practical standpoint, it is critical that organizations not only offer FWPs, but also remain vigilant regarding the possibility that FWPs may have career costs. Managerial training programs may be one effective tool for preventing potential penalties. Managers may assume that em-

employees' personal life investments deplete their work-related investments, yet this assumption is highly tenuous. Indeed, research indicates that engagement in the family domain leads to engagement in the work domain (Rothbard, 2001) and that parents' commitment to their families is positively related to their job performance (Graves, Ohlott, & Ruderman, 2007). Thus, educating managers about synergies between commitment to work and personal life may reduce assumptions that employees who use FWP for personal life reasons lack commitment. Employees who use FWPs for productivity reasons, in addition to or instead of personal life reasons, may also benefit from training programs. If employees are trained to highlight the productivity benefits of FWPs when negotiating FWP use with their managers, they may be able to increase managers' productivity FWP attributions, which in turn are likely to have positive consequences for the perceived commitment and, ultimately, career success of FWP users.

### Limitations and Future Research

We focused on two FWP attributions—productivity and personal life—because evidence indicates that increased productivity and personal life accommodation are two primary reasons why employees use FWPs (Shockley & Allen, 2012; Sullivan & Lewis, 2001). Moreover, the FWP attributions measures (Study 1) and manipulation (Study 2) were framed broadly and therefore encompassed a variety of more specific reasons for FWP use. For example, the personal life measure and general personal life manipulation encompass use of FWPs to meet childcare needs, make time for a hobby, accommodate a spouse's career, or care for a sick friend. At the same time, other FWP attributions may exist, such as a preference for autonomy or the desire to shirk job responsibilities. Our theory suggests that FWP use has positive consequences when attributed to any organization-serving motive, but negative consequences when attributed to any self-serving motive. Nevertheless, investigations of additional FWP attributions may provide further insight into the career consequences of FWP use.

Similarly, we investigated attributions for FWP use but did not investigate attributions for FWP nonuse. Managers are less likely to make attributions for FWP nonuse, as compared to FWP use, given that FWP nonuse is a standard workplace behavior that does not require special permission (cf. Kelly & Moen, 2007) and individuals do not necessarily make attributions for expected behaviors (e.g., Pyszczynski & Greenberg, 1981). More-

over, even if managers do make attributions for FWP nonuse, attributions for FWP use and nonuse are likely distinct constructs, composed of distinct dimensions. For example, employees may not use FWPs because they lack access to them or fear that FWP use will have negative consequences (e.g., Poelmans & Beham, 2008). Lack of access and fear are likely attributions for FWP nonuse but are not meaningful attributions for FWP use. Managers are also unlikely to attribute FWP nonuse to personal life motives because a lack of flexibility is an impediment to personal life accommodation (Blair-Loy & Wharton, 2002; Williams, 2000), which suggests that personal life accommodation is not a conceptually meaningful attribution for FWP nonuse. Thus, future work could investigate whether managers make attributions for why employees do not use FWPs and, if so, what consequences are associated with different attributions for FWP nonuse.

We found that FWP use that is attributed to a desire for personal life accommodation resulted in career penalties in a laboratory experiment, but not in a field study. Thus, further research is needed on moderators of the consequences of FWP use that is attributed to a desire for personal life accommodation. For example, given that personal life FWP attributions were relatively common in the organization we studied, researchers could investigate if the combination of FWP use and personal life attributions does not result in career penalties in organizations in which personal life attributions are common, but does result in penalties in organizations where they are rare. Managers' values may also moderate the effects of FWP use and personal life attributions. Individuals vary in their preferences for integrating versus segmenting their work and personal lives (Rothbard, Phillips, & Dumas, 2005). Managers who are integrators may therefore be less likely than managers who are segmenters to assume that employees who use FWPs for personal life reasons necessarily lack commitment.

The effects of personal life and productivity attributions may also be culturally contingent. This research was conducted in the United States, a masculine culture that emphasizes material success (Hofstede, 2001). Thus, it is not surprising we found that FWP use has positive consequences when attributed to productivity motives but may have negative consequences when attributed to personal life motives. Alternatively, in feminine cultures that emphasize quality of life, the same relationships may be nonsignificant or reversed in direction.

Given that FWP attributions play an important role in the relationship between FWP use and career success, research is needed on antecedents of managers' FWP attributions. We found that employees' FWP motives were not related to managers' FWP attributions, which suggests that other sources of information shape FWP attributions. For example, managers may make productivity and other organization-serving attributions if employees possess desirable personality traits, such as conscientiousness, agreeableness, and positive affect (cf. Grant, Parker, & Collins, 2009), or if managers themselves possess these traits. Managers may also be more likely to make personal life attributions for employees with significant responsibilities in their nonwork lives. Indeed, Study 1 revealed a positive correlation between employees' parental status and managers' personal life attributions ( $r = .25, p < .01$ ; see Table 1), even after we controlled for employees' self-reported personal life motives ( $r_{\text{partial}} = .25, p < .01$ ). Research on antecedents of managers' FWP attributions will provide further insight into which employees are most and least likely to receive career premiums versus penalties as the result of their FWP use.

## Conclusions

Flexible work practices have the potential to benefit employees and organizations alike by facilitating favorable job attitudes and high levels of job performance, while simultaneously decreasing job-related stress, yet less is known regarding how they affect career success. We sought new insight into the relationship between FWP use and career success by introducing the construct of managers' FWP attributions. We found that FWPs can facilitate career success when their use is attributed to a desire to increase productivity, but they can also constrain career success when their use is attributed to a desire for personal life accommodation, at least in some settings. Thus, accounting for FWP attributions advances understanding of when FWPs are likely to be a source of career premiums versus penalties for the employees who use them.

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## APPENDIX

**TABLE A1**  
**Items and EFA Results for the Manager FWP Attributions Measure<sup>a</sup>**

Item	Factor 1	Factor 2
Because he/she is more productive when using FWPs (productivity attributions)	<b>.87</b>	.09
Because he/she performs better when using FWPs (productivity attributions)	<b>.79</b>	.14
To increase the efficiency of his/her work (productivity attributions)	<b>.79</b>	.03
Because he/she has obligations in his/her personal life that need to be fulfilled (personal life attributions)	-.07	<b>.84</b>
Because he/she values roles and responsibilities in his/her personal life (personal life attributions)	.20	<b>.78</b>
To better meet his/her responsibilities outside of work (personal life attributions)	.07	<b>.74</b>
To better balance his/her work life and personal life (personal life attributions)	.13	<b>.71</b>

**TABLE A2**  
**Items and EFA Results for the Employee FWP Motives Measure<sup>a</sup>**

Item	Factor 1	Factor 2
Because I am more productive when I use FWPs (productivity motives)	<b>.92</b>	.19
Because I perform better at my job when I use FWPs (productivity motives)	<b>.81</b>	.26
To increase the efficiency of my work (productivity motives)	<b>.80</b>	.15
Because I have obligations in my personal life that need to be fulfilled (personal life motives)	.08	<b>.84</b>
Because I value my roles and responsibilities in my personal life (personal life motives)	.23	<b>.87</b>
To better meet my responsibilities outside of work (personal life motives)	.18	<b>.81</b>
To better balance my work life and my personal life (personal life motives)	.33	<b>.70</b>

<sup>a</sup> For all items in Table A1, the stem was "The focal employee uses flexible work practices (FWP). . . ." For all items in Table A2, the stem was "I use flexible work practices (FWPs). . . ." In both tables, values above .40 are in bold.



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