

## Flexible work options and mothers' perceptions of career harm

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## **Flexible Work Options and Mothers' Perceptions of Career Harm**

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**ABSTRACT:** Whether or not mothers, who often struggle with balancing work and parenting responsibilities, perceive that they face career harm in exchange for control over flexible work options at their jobs is an unanswered question. Using 2009 original data from a random-digital telephone survey of 441 mothers located across the United States, this study focuses on how control over two latent variables measuring flexibility, flexible work arrangements (such as scheduling and place of work) and time-off options, influences mothers' career harm perceptions in a total of three work domains: 1) wages/earnings; 2) raises or promotions; and 3) job evaluations. We find perceptions of career harm among only one-fifth of mothers; in addition, control over time-off options reduced perceived career damage related to parenting duties. Mothers may have less to fear than previously hypothesized about the potential sacrifices they have to make when they have significant control over certain flexibility options.

Over twenty years ago, Felice N. Schwartz sparked a controversial debate over the role of women in the modern workforce. Because of their motherhood responsibilities, women, according to Schwartz (1989), needed a two-tiered system of employment. For those without children, women could be treated exactly like men in terms of hiring and promotion. But for those women with children, a career track that was less intensive, with flexibility options for employment, was much more suitable. Schwartz noted, however, that opting into such a "mommy track" was not cost-free, and that women who elected to take advantage of this option should expect lower wage growth and other, more limited employment opportunities, trade-offs which she labeled as "appropriate" given mothers' competing family obligations (Schwartz 1989, 73).<sup>1</sup>

In many ways, Schwartz was simply acknowledging that mothers do not conform to the highly gendered ideal worker imagery that functions to reproduce gender inequality in American society (Williams 2000; Williams and Cohen Cooper 2004). In this ideal worker world, certain categories of professional workers should always be available to their employers, twenty-four hours per day, seven days per week (Acker 1990; Cha 2010). This means that ideal workers should have no distractions related to familial and caregiving responsibilities.<sup>2</sup> Because mothers take on the majority of the child care related tasks within American households (Bianchi, Robinson, and Milkie 2006), it can be difficult for them to manage both their work and family lives. Flexibility options at work are thus highly gendered because although they are typically available to both men and women, mothers may find them especially attractive as they juggle their daily life tasks.

While Schwartz cast flexibility options as unavoidable costs for mothers, other researchers, in contrast, began exploring their benefits. For example, while not focused exclusively on mothers, research has demonstrated that when employees sense that they have such options, they have increased satisfaction with their own work/family balance (Hill et al. 2001). Other studies have pointed to the positive effect of perceived flexibility on improving worker health such as lowering cholesterol levels, reducing stress, decreasing burnout, and preventing absences related to illness (Casey and Grzywacz 2008; Grzywacz, Carlson, and Shulkin 2008). With these benefits in mind, an overwhelming majority of mothers who work for pay want the government to do more to encourage the availability of such flexibility options. In fact, a recent national random sample survey showed that 89.4% of both mothers who work for pay and stay at home support legislative measures to educate employers as to these benefits, and 73.9% actually desire that employers be required to provide these opportunities for workers (Crowley and Weiner 2010).

This article extends this scholarship by focusing on the amount of control mothers report that they have over several important workplace flexibility areas, and how this control can influence various perceived career outcomes related to their parenting responsibilities. Most importantly, it attempts to distinguish between two types of workplace flexibility control-- flexible work arrangements (such as scheduling hours and alternative work locations) and time-off options--on perceived career outcomes. On one hand, mothers who have significant control over a variety of workplace flexibility options might report less perceived career harm. This could be the case because higher levels of flexibility control lead to greater worker autonomy (Eaton 2003), potentially producing fewer reports of poor treatment by their employers. Conversely, mothers who report more control over flexibility options might believe that

nonetheless there are penalties to using them (Blair-Loy and Wharton 2002; Kossek and Lambert 2005). More specifically, they might sense that these higher levels of control brand them as less than serious in the eyes of their employers--and thus not ideal workers--thereby leaving them more susceptible to perceived career damage. Here we therefore investigate the size and directional impact of mothers' control over these workplace flexibility initiatives and their corresponding perceptions of career harm due to their caregiving duties.

### **THE COSTS OF MOTHERHOOD**

The costs of having a baby in terms of women's employment opportunities are high, with researchers examining the role of flexibility as a potential cause. Most research that has explored these costs, however, has focused on the availability of flexibility options or usage, and actual career harm, rather than mothers' self-reported *level of flexibility control* and *perceptions of career damage* (Gangl and Ziefle 2009; Waldfogel 1998) [however, for an exception, see Webber and Williams (2008)]. In reviewing this former literature first, there are three areas of significant inquiry that link measures of flexibility availability/usage and specific employment outcomes. The first, most well-documented area of research is the scholarship that connects part-time work—one measure of flexibility—and the motherhood wage gap (Budig and Hodges 2010; Waldfogel 1997). Part-time work can take on different meanings for different sets of mothers. For some mothers, particularly those in demanding, high paying careers, part-time work can be an indicator of a more flexible or mother-friendly job. However, for those mothers working at the lower end of the income spectrum, part-time work may be all they can obtain as employers economize on labor and benefit costs by reducing or eliminating full-time employees (Webber and Williams 2008).

With these caveats in mind, several analyses show that mothers experience a wage penalty after their first and later children, with one study placing the penalty at 7% per child (Budig and England 2001) and another noting that the penalty is much higher among low income mothers (Budig and Hodges 2010). There are, undoubtedly, multiple sources of this penalty such as the loss of job experience, lower levels of productivity in comparison to other workers, and discrimination by employers (Waldfogel 1997). Across these studies, however, the use of part-time employment itself as one potential indicator of a more mother-friendly or flexible job was found to be partly responsible for producing a moderate, negative impact on wages.

The second line of research inquiry has explored the connection between flexibility as embodied in formal leave options and both wage levels and plans to return to employment. The Family and Medical Leave Act of 1993 (FMLA), for example, provides qualified employees with twelve weeks of unpaid leave. The goal of this law is to protect the human capital employees have developed with their employers prior to child birth. Researchers have examined whether mothers return to these same jobs after childbirth, how long they actually spend away from these jobs if they do return (influenced by the leave options themselves, such as whether they are paid or unpaid (Gornick and Meyers 2003)), and the costs of these options imposed on businesses—each of which affects wages. On these matters, there is some evidence that the presence of leave options like the FMLA and those in other countries are associated with modest, positive effects on job continuity with the same employer (Baker and Milligan 2008; Hofferth and Curtin 2006; Klerman and Leibowitz 1999). However, there are mixed results with respect to employees' time spent away from their jobs overall. More specifically, some studies find that shorter leaves have no impact on the time mothers spend away from their jobs or are associated with them coming back more quickly, while others show that longer leaves are associated with

mothers spending more time away from work by remaining at home (Baker and Milligan 2008; Hofferth and Curtin 2006). In addition, while Baum (2003) found no effect of leaves on wages, Hofferth and Curtin (2006) found that wages actually decreased within two years after the birth of a child.

The third category of research has moved beyond simply examining part-time work and leave options to consider up to four more specialized types of flexibility options on wages. The results here have been mixed. Gariety and Shaffer (2001), for example, using Current Population Survey (CPS) data from 1989-1997, found that flextime, as defined by the ability of a worker to control the start and end time of his/her day, was positively associated with wages for women. In a later study using 2001 CPS data, Gariety and Shaffer reported a similar positive effect for actual telecommuting usage (2007). However, pooling data from the 1979 to 2004 waves of the National Longitudinal Survey of Youth, Budig and Hodges (2010) found no effect regarding the usage of irregular hours on wages. Reflecting much less optimism, Johnson and Provan (1995) studied the impact of flextime, child care, maternity leave, and sick leave benefit options on wages among a random sample of workers in 1991, and found that the availability of child care assistance was associated with increased wages for all women. However, when a professional versus non-professional occupational distinction was added into their models, they noted that the availability of the flextime benefit only helped professional women and that the availability of the sick leave benefit actually hurt these same women; in addition, the availability of the child care benefit no longer had any positive effects for any women. Finally, Glass (2004) studied the use of four types of flexibility options with longitudinal data from 1991-1999: reduced work hours (fewer than 30 hours per week), flextime, telecommuting 5 hours per week or more, and child care assistance (including on-site centers, money/vouchers to pay for off-site



care, and/or flexible spending accounts to pay for child care elsewhere). She hypothesized that because employers prize workers who are most available to them for productivity purposes, those taking advantage of the reduced work hours would suffer the greatest financial penalty, followed by flextime and telecommuting. In contrast, those taking advantage of child care assistance would suffer the least because they would be actually freed up to assume more work responsibilities. Indeed, she found that all four options were associated with decreased wages, with reduced work weeks and telecommuting linked to the most dramatic declines in wages, and schedule flexibility and child care assistance associated with the smallest reductions.

### **MOTHERHOOD, PERCEPTIONS OF CAREER HARM, AND WORKER CONTROL**

While these previous studies have examined actual career harm to mothers, mothers' *perceived* career harm is also essential to understand from a research perspective. This is true because perceived career harm for reasons unrelated to work task execution can be very damaging to employees in many areas of their lives. That is, perceptions matter even if they have no basis in "reality" (Naff 1995). First, perceived career harm due to unfair reasons can affect worker health. More specifically, scholars have linked perceived career harm experienced by other groups such as minorities and women to increases in blood pressure (Krieger and Sidney 1996), heightened emotional distress and diminished physical functioning (Pavalko, Mossakowski, and Hamilton 2003), and reduced self-esteem (Goldman et al. 2006). All of these effects occur as individuals compare their own circumscribed work circumstances with those in more advantaged sociodemographic groups and conclude that they are helplessly being left behind.

Second, beyond these physical health and mental well-being issues, perceived career harm can produce incredible strain between employees and their workplaces. For instance,

perceptions of career harm for unjust reasons can affect workers' levels of job satisfaction and work effort (Sanchez and Brock 1996). On this point, they may feel intense role conflict between their work and family obligations (Minnotte 2012). This could lead to workers being less engaged with their obligations in their organizations. They also might be less likely to exert effort above and beyond what is necessary to meet the basic requirements of their jobs. In addition, perceived differential treatment can also negatively influence workers' level of organizational commitment, or the intensity of engagement that links employees to their firms' long-term goals. This is a significant problem in that it can result in the serious underemployment of a skilled group of workers (Goldman et al. 2006).

What factors might reduce this perceived harm and serve to promote stronger ties between workers and their employers? One key factor relates to *employee control* over various components of his/her job (Alarcon, Eschleman, and Bowling 2009; Spector 2009), which can be exercised through a variety of workplace flexibility policies. Employees' sense of control is important in that it pertains to the highly valued concept of autonomy, which can help foster alliances between workers and their employers over the long run (Eaton 2003). In other words, when employees believe that they have control over various aspects of their employment conditions, they are more likely to be favorably inclined toward their employers overall. For example, researchers have noted that when employees are able to exert some control over the scheduling, pacing, and timing of their work hours, they are more satisfied in their positions than those with less control (Eaton 2003; Henly, Shaefer, and Waxman 2006). Other studies have shown that workers who can control their location and hours of work have greater levels of engagement with their positions and stay in them longer, thereby generating a stronger linkage with their employers (Richman et al. 2008).

Of course, it is important to emphasize again that control over flexibility is not the same as simply the availability of such policies, which while important (Glauber 2011; Mennino, Rubin, and Brayfield 2005), may or may not be utilized. Nor is control equivalent to the actual usage of such policies, which some research has suggested may be more consistently encouraged in informal and female-dominated industries/occupations (Minnotte, Cook, and Minnotte 2010; Thompson, Beauvais, and Lyness 1999). In this analysis, flexibility control refers to employees' perceptions regarding the power that they hold to potentially help them to better manage their work/family lives.

Because these studies demonstrate that control over flexibility arrangements leads to stronger relationships with employers, we therefore hypothesize that mothers with enhanced flexibility control will perceive less career harm due to their parenting responsibilities in terms of employer-issued wages, raises and promotions, and job evaluations. In other words, mothers will feel more autonomous given the flexibility options at their disposal, and this control will have a positive impact on their perceived treatment by their employers.

Based on the research described above as well as a schematic devised by Workplace Flexibility 2010, an organization located at Georgetown University Law Center to provide education on the flexibility issue, we divide flexibility policies conceptually into two categories: flexible work arrangements and time-off options. Flexible work arrangements provide employees with some control over the timing of their work day and/or their location of work. Employer expectations of regularly-delivered work products remain the same. In contrast, time-off options give workers access to opportunities to properly respond to planned or unplanned events. Unlike flexible work arrangements, time-off options afford workers with the chance to submit work products at either an earlier or later date than traditionally prescribed. While we

predict that enhanced control over these two options will reduce perceptions of career harm, we analyze their effects separately as their individual impacts might vary in magnitude. In sum, our hypotheses are as follows:

*Hypothesis (1):* As mothers report greater levels of control over flexible work arrangements, they will perceive fewer career impediments due to their parenting responsibilities.

*Hypothesis (2):* As mothers report greater levels of control over time-off options, they will perceive fewer career impediments due to their parenting responsibilities.

## **DATA AND METHODS**

This study is part of a larger project on mothers and employment funded by the Alfred P. Sloan Foundation (Crowley and Weiner 2010). The original data component of this research is from a random-digit-dial telephone survey of 800 mothers located across the United States who were asked a variety of questions related to workplace flexibility. In order to qualify as a survey participant, respondents had to be at least 18-years-old with at least one child in the household. The design included all mothers, step-mothers, or guardians of at least one such child. The telephone survey was fielded from April-June 2009. The survey included both English and Spanish speaking participants; 737 interviews (92.1%) were conducted in English and 63 interviews (7.9%) were conducted in Spanish. Overall, the cooperation rate for the survey was 67.2% and the response rate was 46.4%.<sup>3</sup> All collected data were weighted using the April 2009 Current Population Survey as a calibration target to assure that the demographic parameters of the sample corresponded within a reasonable degree of statistical tolerance to the demographic parameters of the relevant population. The weight calibration variables here included age, race-ethnicity, and geographic region. We also note that by restricting our sample to mothers, we are

testing whether the relationships between control over flexibility options and perceptions of career harm are statistically different than zero for this group only.<sup>4</sup>

In order to be included in this part of the study, the mothers had to be currently working for pay in at least one job with an employer (rather than be only self-employed or working in a family business). A total of 441 cases fulfilled these criteria; however, depending on the model specification, using casewise deletion to address missing data issues would have resulted in up to 31% of cases being dropped and the introduction of potential bias into the analysis (Little and Rubin 2002). In order to address the problem of missing data, we used ICE (imputation by chained equations), one of the multiple imputation methods available through the statistical package Stata (Royston 2005). ICE permits the use of the appropriate regression technique in estimating variable values (continuous, ordinal, dummy), which ultimately allows for the calculation of more reasonable responses similar to those in the original data set.<sup>5</sup> We ultimately created 25 imputed datasets using all of the independent and dependent variables in the analysis (Rubin 1996) and calculated parameter estimates using Rubin's rules (Rubin 1987). This number of imputations was chosen to insure that the minimum degrees of freedom exceeded the actual sample size in all analyses, so that the simulation uncertainty of the multiple imputation variance calculation was negligible.

### **Measures and Analytic Strategy**

Respondents were first asked to consider the single current job for which they work for an employer the most number of hours per week. The central dependent variable of interest here related to the respondents' perceptions of career harm in the workplace due to their parenting responsibilities. Three types of career harm were considered, including those related to pay,

promotions and raises, and job evaluations. More specifically, respondents were asked the following questions to create the dependent variable: (1) "At this job, do you believe that you were ever paid less than a worker doing a comparable job at least partly due to your parenting responsibilities?"; (2) "At this job, do you believe that you were ever denied a raise or a promotion at least partly due to your parenting responsibilities?"; and, (3) "At this job, do you believe that you have ever received a negative job evaluation at least partly due to your parenting responsibilities?" Responses were coded with a value of 1 (yes) if they perceived each of these career impediments independently or 0 (no), otherwise. We then employed a series of negative binomial regression models to predict the total count of perceived career impediments experienced by each mother.

As discussed above, we were primarily interested in each employee's own evaluation of control over two main types of flexibility: flexible work arrangements and time-off options. The survey asked all of the respondents "how much control" they had over various areas of workplace flexibility: none, very little, some, a lot, or complete. Their answers were measured on a flexibility scale from 1-5, with 1 representing no flexibility and 5 representing complete flexibility. For flexible work arrangements, we asked about control over four measures: scheduling work hours, schedule predictability, the number of hours worked, and where one works. For time-off options, we inquired about control over another set of four measures: short-term time off to address ordinary predictable needs, short-term time off for unpredictable needs, episodic time off to complete regularly occurring tasks, and longer-term/extended time off (see Appendix A for survey questions). To reduce the number of overall indicators in our models, we employed confirmatory factor analyses (Kolenikov 2009) related to these two corresponding

factors (Brown 2006; Mulaik 2009); all factor loadings were highly statistically significant as demonstrated in Appendix B.<sup>6</sup>

The individual job and organizational characteristics of a mother's place of employment could also matter in influencing perceived harm due to parenting responsibilities. These included hours employed per week, the professional nature of the job, the size of the workplace, whether one works with clients, and the gender balance in the organization. Williams (2000) has noted that employees can call negative attention to themselves by behaving in any way that does not conform to the ideal worker standard, where one is available to his/her employer all of the time, at any time, and does not have competing obligations. In other words, in this view, working longer hours is always better in the eyes of the employer than shorter hours. Therefore, employees who work more hours (and not part-time) will be less likely to perceive harm (Budig and Hodges 2010); they are apt to receive less scrutiny and be less inclined to sense that they are being treated differently. In addition, mothers working in a professional job might have more resources at their disposal to handle life's demands and perceive less career harm as well (Anderson, Binder, and Krause 2003). Larger companies with 50 or more employees could have a increased capacity to accommodate workers with individual needs in terms of caregiving, thereby reducing harm perceptions. In contrast, those who interact with people outside of the company as a requirement of their jobs might need to limit these contacts under certain conditions because of their other competing responsibilities, thereby increasing perceptions of harm. Finally, perceived bias could also be worse if women do not dominate the organization and sense that they are not accepted by the group's culture (Kanter 1977; Roth 2004).

This study thus included several dichotomous variables capturing whether each respondent worked at least 35 hours per week (1=yes, 0=otherwise), and whether or not she

worked in a professional job (1=yes, 0=otherwise).<sup>7</sup> These variables were predicted to be negatively related to perceptions of career harm. For the organizational characteristics, we included whether or not the respondent's company had 50 or more employees and whether she regularly interacted with clients, customers, or the general public as part of her job (all variables coded 1=yes, 0=no). We hypothesized that the first of these variables would have a negative effect on the dependent variable while the second would have a positive relationship with the dependent variable. We also inquired as to whether the respondent was one of a small number of women at her job site, that is, one of 15% or less women or one of between 16%-35% of women; these two categories represent Kanter's (1977) "token" and "tilted" group types whereby a variety of negative effects related to being a minority can be strong. More gender-balanced groups included categories where women were 36%-49% or 50%-74% of their job sites' workforce; in these types of workplaces, even though women no longer represent small categories of employees in comparison to men, they still must interact with a significant number of male coworkers who could be in supervisory positions. The omitted category was where a mother works for an organization that employs 75% or more women. All of these variables were coded as 1=yes, 0=no. Again, we hypothesized that being in any category with smaller percentages of women in the workplace as compared to the omitted category would have a positive relationship with the dependent variable.

Other sociodemographic variables were included as controls as in previous work examining mothers' labor market outcomes (Budig and England 2001; Waldfogel 1997). These included education, income, age, number of children in various age categories, relationship status, and race. Education and income were both predicted to serve as protective factors against the number of career impediments perceived as they capture personal resources to handle life's



demands. Variables were included to indicate whether or not the mother was a college graduate (1=associate's degree or higher, 0=otherwise) and whether or not she earned a low personal income in 2008 (1=earned less than \$30,000 per year, 0=otherwise). We also included age (measured in years), which was hypothesized to decrease the number of career impediments perceived due to the likelihood of a respondent having more resources at her disposal to carry out her caregiving responsibilities (Anderson, Binder, and Krause 2003; Taniguchi 1999).

The ages and number of children a mother had also were incorporated into the models. As children pass through different developmental stages, they need specialized types of assistance from their parents (Budig and Hodges 2010; Martinengo, Jacob, and Hill 2010; Neath et al. 2007). While younger children require the most assistance with daily life activities such as eating and bathing, older children and teenagers need more help with carpooling and homework supervision. In either case, a greater number of children in each category would also require more work and impact mothers most directly; there also might be a more dramatic effect for women with older children as they have accumulated career penalties over time (Budig and Hodges 2010). This study therefore included a count of each respondent's number of children in the following age categories: number of preschoolers under 5, young children between 5-8, children or tweens between 9-12, and teenagers 13 and up. We hypothesized that in each age category, and especially among the older children group, higher numbers of children would have a positive relationship with the number of career impediments perceived.

Finally, following Gangl and Ziefle (2009) and Waldfogel (1997), we included whether the mother was currently married, in a civil union, or living with a partner (1=yes, 0=no) and the mother's race (Black, Hispanic, or other, non-white (1=yes, 0=no); white as the omitted category). Although the research findings on the impact of these variables have been somewhat

contradictory, we predicted that having a partner with whom to share responsibilities would be a buffer against perceptions of career harm. On the other hand, being a racial minority was hypothesized to be associated with an increase in the number of harm perceptions due to priming in other life areas where bias may have been encountered; in addition, the size of these effects might be different for each race as the literature on labor intersectionality suggests (Browne and Misra 2003; Chong and Kim 2006; Davidson and Friedman 1998).

Our analytical strategy was composed of multiple parts. First, we provide descriptive statistics from the weighted observed and imputed data for the independent and dependent variables. Second, we present a Pearson correlation coefficient matrix for our independent and dependent variables to examine potential issues of multicollinearity. Third, we build a series of negative binomial regression models to identify linkages between all of the independent variables discussed above with the dependent variable. Flexibility measures (flexible work arrangements and time-off options) enter these models as latent variables (Bollen 1989; Bollen 2002); examining whether their coefficients are different than zero is a direct test of our two central hypotheses. We then use a simple two-stage analysis to fit the models by obtaining the factor scores and estimating the final models using these predicted factor scores. This approach is very helpful in that it allows a wide range of standard regression diagnostics to be conducted, including analyses of mediating effects and the calculation of variance inflation factors (VIFs) for the independent variables.<sup>8</sup>

Negative binomial models are one of the standard tools available for the analysis of count data (Cameron and Triverdi 1998; Hilbe 2011; Long 1997).<sup>9</sup> They serve as an extension of the basic count regression model, the Poisson model, by relaxing the restriction imposed by the Poisson distribution that the variance of the (conditional) distribution must be equal to its mean.

Negative binomial regression models are especially called for when there is overdispersion in the data (i.e., unobserved heterogeneity), which these models indicate by the percentage of extra variability in the outcome (i.e., the number of perceived types of career harm) over and above that implied by the Poisson model (for which this overdispersion parameter is equal to zero, and variance is equal to the mean). Non-zero dispersion strengthens the case for employing negative binomial models as compared to the simpler Poisson models.

Like logistic and Poisson regression models, negative binomial models are estimated using maximum likelihood techniques, which are implemented via iterative maximization of the likelihood function. We build our series of three models by including additional covariates, one set at a time. More specifically, Model 1 demonstrates the effect of the flexible work options in the absence of any additional controls, covariates, and mediators. Model 2 adds job and organizational characteristics, while Model 3 is the most comprehensive one, as it also adds sociodemographic controls. Figure 1 summarizes our approach.

[Figure 1 about here]

## **RESULTS**

Our data analysis indicated that there was very little difference between the observed and imputed data; here we discuss the results from the imputed data beginning with Table 1. With respect to the various components of the dependent variable, 15.3% of mothers reported feeling as if they had been paid less in their current jobs due to their parenting responsibilities, while 9.2% believed that they had been denied a promotion or raise for the same reason. Representing the smallest group, only 7.4% thought they had received a negative job evaluation as a result of their caregiving tasks. About one-fifth of all mothers perceived at least one form of discrimination. With respect to the final dependent variable used in the regression analyses--the

total count of these three perceived career impediments--on average, women perceived less than one.

Table 1 also presents descriptive statistics for the independent variables in this analysis; the first two are the flexibility factors--flexible work arrangements and time-off options--standardized around a mean of zero. In terms of job characteristics, 69.5% worked at least 35 hours per week and 63.3% reported having some type of professional job. In terms of organizational characteristics, 56% worked at a large company. A full 84% stated that they worked with clients, customers, and/or the general public. In terms of female representation at their location of work, 16% reported working in an environment where women were less than 15% of the workforce. In addition, 5.9% said they worked in an environment with 16%-35% women; 17.1% reported working in an environment with 36%-49% women; and 31% stated that their workplace was composed of between 50%-74% women (30% of mothers were in the omitted category, with 75% or more women).

Finally, with respect to sociodemographic characteristics, 63.7% had a college degree and 45.7% made less than \$30,000 per year. Overall, the mean age of the mothers in the study was 37.7 years and they had fewer than one child in each age category described above. In addition, 80% of the mothers were married, living with a partner, or in a civil union. With respect to the racial composition of the sample, 16.4% were Black, 11.3% Hispanic, and 7.9% other (non-white). The remainder were white.

Table 2 presents a Pearson correlation coefficient matrix for all included independent and dependent variables based on their imputed values. Overall, multicollinearity was not a problem in the data, with the strongest correlation emerging between the two flexibility variables. In addition to this Pearson correlation coefficient matrix, standard regression diagnostics including

calculations of the variance inflation factors (VIFs) for each independent variable reinforced the conclusion that multicollinearity did not influence our results in a noticeable way.<sup>10</sup>

[Tables 1 and 2 about here]

The negative binomial regression results based on the imputed data are presented in Table 3. Models 1-3 present the incidence rate ratios (IRRs) with standard errors in parentheses. IRRs are derived from the model coefficients and are interpreted as the proportionate change in the rate of perceived career harm experiences for each one unit change in the independent variable. For instance, an IRR of 1.00 indicates that the independent variable produces no change in the dependent variable, while an IRR of 1.50 tells us that a one unit increase in the independent variable leads to a 50% increase in the rate of perceived career harm experiences and an IRR of .50 tells us that a one unit increase in the independent variable leads to a 50% decrease in the rate of perceived career harm experiences. Note that the two latent variables from the factor analysis are created to be standardized normal, with a mean of 0 and a standard deviation of (approximately) 1. The units of analysis for these flexibility variables are thus standard deviations. While the statistical model that produced the factor scores assumed the factor variance equal to 1, the sample discrepancy of the reported standard deviation from 1 is due to shrinkage of the factor scores by the empirical Bayes (regression) method (Lawley and Maxwell 1971). Overall, the models are statistically significant as demonstrated by their summary F-statistics.<sup>11</sup>

[Table 3 about here]

Model 1 begins by simply including the two latent flexibility variables, flexible work arrangements and time-off options, to estimate their overall effect on the dependent variable. As Table 3 indicates, time-off options is statistically significant. Model 2 adds job and

organizational characteristics to the estimation. Again, time-off options remains statistically significant even with the addition of these controls.

The most critical estimation for discussion here is Model 3, which not only incorporates the two latent flexibility variables, but also the job and organizational characteristics possessed by each mother, as well as her sociodemographic characteristics. Notably, adding these variables had little effect on the estimates of the flexibility options or their standard errors. This can be viewed as evidence of the robustness of the reported findings. Most importantly, the results indicate that Hypothesis (1) did not receive support. Control over flexible work arrangements had no statistically significant influence on perceived career harm. However, Hypothesis (2) did receive support. Control over time-off options had an impact in the expected direction, as it did in Models 1 and 2. More specifically, a one unit increase in control over time-off options was associated with a decrease in the rate of perceived career harm experiences by a factor of .629. In other words, for every one standard deviation increase in control over time-off options, the rate of perceived career harm experiences declined by 34.9%.<sup>12</sup> This effect can also be seen in Figure 2, which illustrates the relationship between time-off options and number of career harm types perceived. This figure overlays the box-plot of the distribution of the time-off factor scores and the graph of the predicted probabilities related to perceived career harm. As control over time-off options increases, the probability that a mother will perceive zero types of career harm increases, while the probability that she will perceive either one, two, or three types of harm decreases.

[Figure 2 about here]

Few other variables were statistically significant in predicting perceived career harm. In terms of job and organizational characteristics, being a worker in an organization with token

levels of women in the workplace (15% women or less), being employed in a tilted workplace (with 16%-35% women), and being employed in a working environment with between 50%-74% women increased the rate of perceived career harm experiences by a factor of 2.161 (or 116%), 2.937 (or 194%), and 1.942 (or 94.2%), respectively, as compared to organizations with 75% or more female employees. Overall, these findings are consistent with our prediction that mothers in organizations with the smaller percentages of women would perceive more career harm than those in the omitted category. Said another way, workplaces with large numbers of women (75% and over) seem to be notable in that women's perceptions of career harm from parenting duties are very low, especially as compared with women's experiences where they are less numerous.

Finally, in terms of sociodemographic characteristics, having a partner decreased the rate of perceived career harm experiences by a factor of .494 as compared to those mothers without a partner. That is, having a partner reduced the rate of perceived career harm experiences by 50.6%. This finding, too, was consistent with our hypothesis that being in a couple provides a buffer against perceived career harm. Partners may be a valuable listening resource who can hear workplace problems and offer mothers alternative explanations for any perceived career harm besides their parenting responsibilities. Partners are also likely to be another source of household income, perhaps reducing the salience of being treated equally in the workplace on a consistent basis for these mothers. Alternatively, this simply might be a self-selection issue; women with partners might have certain qualities that also make them less likely to perceive career harm.

## **DISCUSSION AND CONCLUSIONS**

Employee control in this analysis was hypothesized to reduce perceptions of career harm through a distinct set of mechanisms. Flexibility control, more specifically, has been associated with a greater sense of worker autonomy, which can foster alliances between employees and employers (Eaton 2003). Workers with more control are also more likely to be satisfied with their jobs and stay in them longer. But this previous research aggregated all types of workers together and did not employ survey data to examine these issues as they pertain to mothers specifically. Most notably, this prior work also did not investigate the relationship between control over flexibility and perceptions of career harm for mothers, which is the primary focus of the research presented here.

In this analysis, and contrary to expectations, control over flexible work arrangements had no statistically significant impact on perceptions of career harm for mothers. More specifically, control over the timing and location of work did not significantly affect these mothers' attitudes when it came to their perceptions regarding how their employers treated them in the past. As described earlier, this might be the case because most jobs--even those with flexible work arrangements--have a series of tasks that must be accomplished within a given time frame. While flexible work arrangements provide mothers with options as to how these tasks may be completed, they clearly do not alter the quantity nor the quality of work products that must be delivered on a regular basis. In other words, mothers must still complete their employer-dictated assignments in a timely manner; these ongoing demands might make them feel as if they are being treated like all other workers, thus producing no overall impact on career harm perceptions.



In contrast, we demonstrate that mothers' control over time-off opportunities clearly binds them to their employers in a special and significant way, and thus reduces their perceptions of career harm due to parenting responsibilities. This effect of time-off flexibility control is consistent with the findings from one survey of mothers who joined support associations to meet their specific needs as they relate to working for pay or staying at home. In that study, time-off options were rated as much higher in importance than flexible work arrangements when all mothers were asked to design their ideal paid job (Crowley and Weiner 2010). Qualitative research on the same set of mothers spells out exactly why time off matters (Crowley 2013). Undoubtedly, all mothers want the best for their children. Although these mothers may have to work for pay or choose to work for pay, they want to be the ones who are able to pick up their children from school if they are sick, take them to sports practices, attend parent-teacher conferences, and be engaged in other important, child-related activities. Simply put, time off to satisfy family needs matters to these women. When mothers are afforded control over this issue domain and are most critically able to shift the completion of tasks to an earlier or later date (unlike flexible work arrangements), they emerge as more satisfied with their employment experience overall and report fewer perceived career impediments. This finding in particular demonstrates that mothers' fear about the costs of flexibility or the price they should be "willing to pay" described in other studies (Blair-Loy and Wharton 2002; Kossek and Lambert 2005; Schwartz 1989) does not apply when exploring control over time-off options and perceptions of career harm.

There are, of course, several limitations and qualifications to this study. Most important are issues related to the self-selection of the sample and sample diversity, the specification of the models, and measurement issues. This study treated control over flexibility as an independent

characteristic of a job that may or may not impact respondents' perceptions of career harm.

However, mothers might be self-selecting into jobs with higher levels of control for a variety of reasons, thus making them more satisfied with their jobs overall and less likely to report career harm of the kind at issue here. If this were the case, then the findings reported in this analysis would represent lower-bound estimates of perceived career harm. Another potential issue is if workers are somehow unhappy with any aspect of their jobs, they may choose not to engage in any type of paid work, and therefore would not show up in this sample at all. Finally, if employers were offering more flexibility options that ostensibly gave their employees additional control, this might induce an increase in labor force participation, with the possibility that some of these new employees would still not be completely satisfied with their working conditions and thus be more likely to report perceived career harm. A related issue is the sample's diversity. This analysis focused on the perceptions of American mothers who face a particular constellation of barriers in the employment arena. Comparing their perceptions to equivalent forms of perceived discrimination faced by others such as fathers more specifically might shed light on the potentially divergent impacts of flexibility control.

In terms of model specification, many of the included independent variables in this study were not statistically significant. While this provided an additional layer of confidence regarding our empirical findings on flexibility, this could also indicate that other variables not collected in this analysis might be helpful in terms of determining perceptions of career harm. Most importantly is the culture of a workplace, as embodied in supervisor support and other types of policies that make an environment more family-friendly (Allen 2001; Glass and Fujimoto 1995; Thompson, Beauvais, and Lyness 1999). In addition, factors such as employee work-related demands, the distribution of authority within a workplace, and the nature of supervisor

responsibilities might enhance or suppress the associations between flexibility control and harm perceptions described here. Future analyses should take into account these potential mediating effects.

There are also issues related to measuring perceived career harm. While some mothers might label the structural obstacles placed before them in the workplace (such as mandatory start and stop times) as contributors to such perceived harm (Charlesworth 2005), other mothers might only report harm if they sense that actual laws are broken. This latter, higher threshold for perceived harm could emerge because mothers believe that they have freely chosen jobs with certain, strictly-defined attributes and need to trade-off some benefits with respect to the progression of their careers (Furchgott-Roth and Stolba 1999; O'Neill and Polachek 1993), or alternatively because they do not identify with the category of "mothers" as a potentially marginalized category of workers (Marino et al. 2007; Operario and Fiske 2001; Sellers and Shelton 2003). Lastly, mothers may refuse to identify perceived career harm due to their status as parents because in doing so, they would expose themselves to negative personal feelings such as isolation and demoralization (Sigel 1996).

Despite these drawbacks, the results presented in this analysis are important for two key reasons. First, they demonstrate the dangers of oversimplification when considering the concept of workplace flexibility. Beyond the availability and actual usage of flexibility policies, workers' own sense of control over these options is also an important factor in creating a happy and healthy employment environment. In this analysis, the effects of control over two types of flexibility--flexible work arrangements and time-off options--were explored, and only time-off options were found to be statistically significant in reducing perceptions of career harm due to parenting responsibilities for mothers. This indicates that future scholarship must pay particular

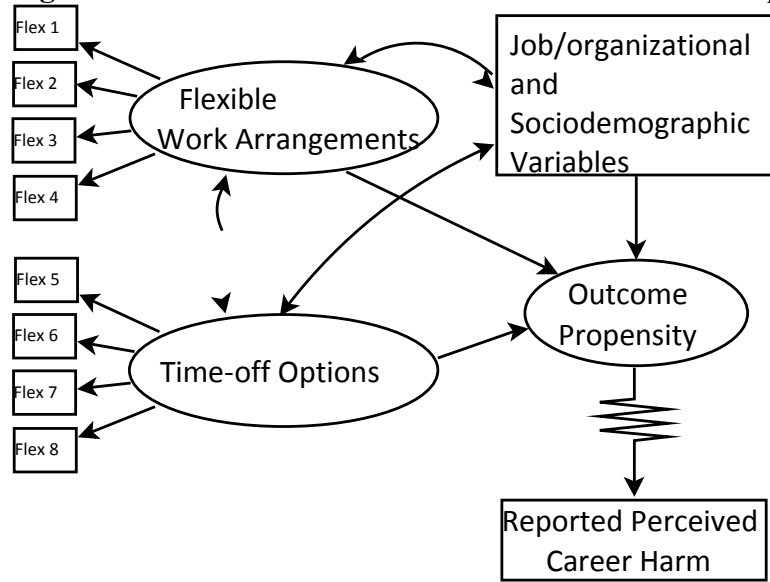
attention to defining workplace flexibility as specifically related to either control, availability, or usage, and to refining how these definitional differences might have unique effects on a variety of workers' perceptions of maltreatment.

Second, this analysis has important implications for public policy. While men, too, increasingly struggle over work and family balance, this analysis focused on mothers because the academic scholarship has consistently shown that women pay a greater price—financially and emotionally—in negotiating these dueling demands (Gornick and Meyers 2003; Hegewisch and Gornick 2008). So how can policymakers assist these mothers? This study draws direct attention to a critical issue for mothers in the labor market: the linkage between self-rated worker control over flexibility options and perceptions of career harm due to parenting responsibilities. Overall, enhanced control over time-off options decreases perceptions of career harm. It is therefore critical to consider the means by which these workers can gain greater control over their jobs, because, as noted earlier, although harm perceptions might not always be an accurate representation of reality, they definitely can provide clues as to the factors that can either expand or contract the scope of opportunity for mothers in the labor force today.

On the governmental level, policymakers should consider formal laws that provide mothers with time off when needed. FMLA offers one model, and based on the research presented here, might benefit from expansion or even evolving into paid leave. In the private sector, policymakers should encourage research on particular work environments where mothers rank their level of control over time-off options highly and have only the most minimal perceptions of career harm due to their parenting responsibilities. In studying these ideal environments in depth, researchers should closely examine the actual mechanisms that make these mothers feel as if they have significant control over time-off availability. A crucial place

to look beyond standard written regulations on "days off allowed" would be how these organizations cultivate the talent and development of mothers as workers. Do they provide human resource training or counseling related to work/family balance for mothers? Do they provide on-site and/or urgent day care options for these employees? Do they sponsor mentorship programs that help mothers negotiate their multiple responsibilities and request time away from their jobs? Do mothers at the upper-end of the management ladder actively model acceptable behavior by taking time off themselves to care for their children? Answering these questions will surely be a start toward understanding the exact nature of the relationship between supportive organizational activity that offers workers real control on the ground and maternal perceptions regarding work opportunities, thereby enhancing the career trajectories of mothers across the board.

**Figure 1. Perceived Career Harm: A Latent Variable Approach**



**Note:** In this latent variable model, job/organizational and sociodemographic characteristics are observed, exogenous variables; flexibility factors (flexible work arrangements and time-off options) are latent variables with four indicators each as described in the text; and the number of perceived career harms is the dependent variable in the model. To simplify, we grouped together the exogeneous variables into a single box, omitted the measurement errors of the flexibility indicators, and used a squiggly line to represent a non-linear link for the resulting final outcome variable.

**TABLE 1: Weighted Descriptive Statistics on Mothers in the Observed and Imputed Sample**

Variable Name	Observed Data			Imputed Data		
	N	Mean	SD	N	Mean	SD
<b>DEPENDENT VARIABLES</b>						
Paid Less	436	.154	.361	441	.153	.360
Denied a Promotion or Raise	436	.091	.288	441	.092	.289
Received a Negative Evaluation	439	.074	.262	441	.074	.262
Any Discrimination	432	.212	.409	441	.209	.407
Total Discrimination Experiences	427	.651	.477	441	.650	.478
<b>FLEXIBILITY CONTROL</b>						
Flexible Work Arrangements	399	0.00	.892	441	0.00	.889
Time-off Options	399	0.00	.929	441	0.00	.927
<b>JOB and ORGANIZATIONAL CHARACTERISTICS: 1=yes; 0=no</b>						
Employed for at least 35 hours per week	440	.696	.461	441	.695	.461
Professional Job	385	.638	.481	441	.633	.483
Work at large company (at least 50 employees)	436	.561	.497	441	.560	.497
Work with clients, customers, general Public	440	.840	.367	441	.840	.367
Token Female Workplace Representation (15% women or less)	435	.157	.364	441	.160	.367
Tilted Female Workplace Representation (16%-35%)	435	.058	.234	441	.059	.236
Other Female Workplace Representation: (36%-49%)	435	.169	.375	441	.171	.377
Other Female Workplace Representation: (50%-74%)	435	.308	.462	441	.310	.463
<b>OTHER SOCIODEMOGRAPHICS</b>						
College Graduate (1=yes; 0=no)	427	.638	.481	441	.637	.481
Low Income (<\$30,000 per year)	391	.464	.499	441	.457	.499
Age of Mothers	420	37.70	8.36	441	37.72	8.37
Number of Preschoolers (ages 0-4)	434	.569	.811	441	.571	.813
Number of Young Children (ages 5-8)	434	.375	.589	441	.376	.590
Number of Tweens (ages 9-12)	434	.422	.607	441	.423	.608
Number of Teens (ages 13-18)	434	.587	.793	441	.585	.791
Partner (1=married, civil union, living together; 0=no)	436	.800	.400	441	.800	.401
Black (1=yes; 0=no)	421	.160	.367	441	.164	.370
Hispanic (1=yes; 0=no)	421	.109	.312	441	.113	.317
Other Non-white Race (1=yes; 0=no)	421	.073	.261	441	.079	.270

Note: The two latent flexibility variables from the factor analysis are created to be standardized normal, with a mean of 0 and a standard deviation of 1.

**TABLE 2: Pearson Correlation Coefficient Matrix**

	# of Disc. Events	Flexible Work Arrangements	Time-off Options	Employed at least 35 Hours	Professional Job	Work at Large Company	Work with Clients	Women In Workplace (15% or less)	Women In Workplace (16%-35%)	Women In Workplace (36%-49%)	Women In Workplace (50%-74%)
Flexible Work Arrangements	-.078										
Time-off Options	-.168**	.680**									
Employed at least 35 Hours	.025	-.188**	-.085								
Professional Job	-.104	.130*	.100	.004							
Work at Large Company	.036	-.129*	-.093	.209**	.109*						
Work with Clients	.020	.010	.095	-.071	.095	-.063					
Women In Workplace (15% or less)	.060	.040	.062	-.030	-.246**	-.194**	-.076				
Women In Workplace (16%-35%)	.048	.034	.076	.066	.013	.032	-.093	-.101			
Women In Workplace (36%-49%)	.015	-.043	-.077	.080	-.025	.125*	-.018	-.187**	-.110*		
Women In Workplace (50%-74%)	.064	-.077	-.087	.032	.024	.153**	.073	-.277**	-.158**	-.292**	
College Graduate	-.027	-.070	-.007	.017	.399**	.111*	.075	-.094	.059	-.023	.003
Low Income	.005	.094	-.015	-.296**	-.281**	-.339**	.010	.083	-.131*	.006	-.030
Age	-.117*	-.039	.017	.112*	.201**	.103	-.055	-.160**	.062	.006	-.001
Number of Preschoolers	.106*	.081	-.008	-.160**	-.104	-.051	-.013	.073	.002	-.049	.009
Number of Young Children	.019	-.007	-.035	-.020	-.060	.045	.053	.122*	-.021	-.074	.006
Number of Tweens	.007	-.002	.024	-.024	.046	.056	.112*	.012	-.099	.086	-.005
Number of Teens	.007	.006	.006	.106*	.067	.002	.038	-.091	.022	-.053	-.048
Partner	-.206**	.139**	.151**	-.129*	.099	-.052	-.049	-.072	.087	-.062	.008
Black	.145**	-.108*	-.126*	.127*	-.182**	.068	.116*	.075	-.040	.067	.011
Hispanic	-.040	-.006	.045	-.026	-.033	-.040	-.103	.143**	-.060	.007	-.053
Other Non-white Race	.001	.050	.013	.116*	.047	-.001	-.177**	.010	.155**	-.058	.053

Note: Continued on next page.



**TABLE 2: Pearson Correlation Coefficient Matrix (continued)**

	College Graduate	Low Income	Age	Number of Preschoolers	Number of Young Children	Number of Tweens	Number of Teens	Partner	Black	Hispanic
Low Income	-.347**									
Age	.105*	-.185**								
Number of Preschoolers	.021	.012	-.524**							
Number of Young Children	-.067	.064	-.156**	-.094						
Number of Tweens	-.074	.041	.092	-.274**	.038					
Number of Teens	-.058	.057	.470**	-.419**	-.237**	.012				
Partner	.120*	-.079	.139**	-.011	-.083	.004	.008			
Black	-.068	.118*	-.094	.017	.058	.144**	.032	-.308**		
Hispanic	-.045	.041	-.112*	.026	.026	.123*	-.097	-.034	-.131	
Other	.081	-.010	.075	-.063	.004	-.102	.033	.076	-.110*	-.080

Note: \*\* two-sided p-value<.01; \* two-sided p-value<.05.

There are 210 correlations reported in this table. If the null hypothesis of no correlations were true, then by chance alone, about  $210 \times 0.05 = 10.5$  correlations would show as significant at the 5% level, and about  $210 \times 0.01 = 2.1$  correlations would show significant at the 1% level.

**TABLE 3. Negative Binomial Models Predicting the Number of Perceived Career Impediments**

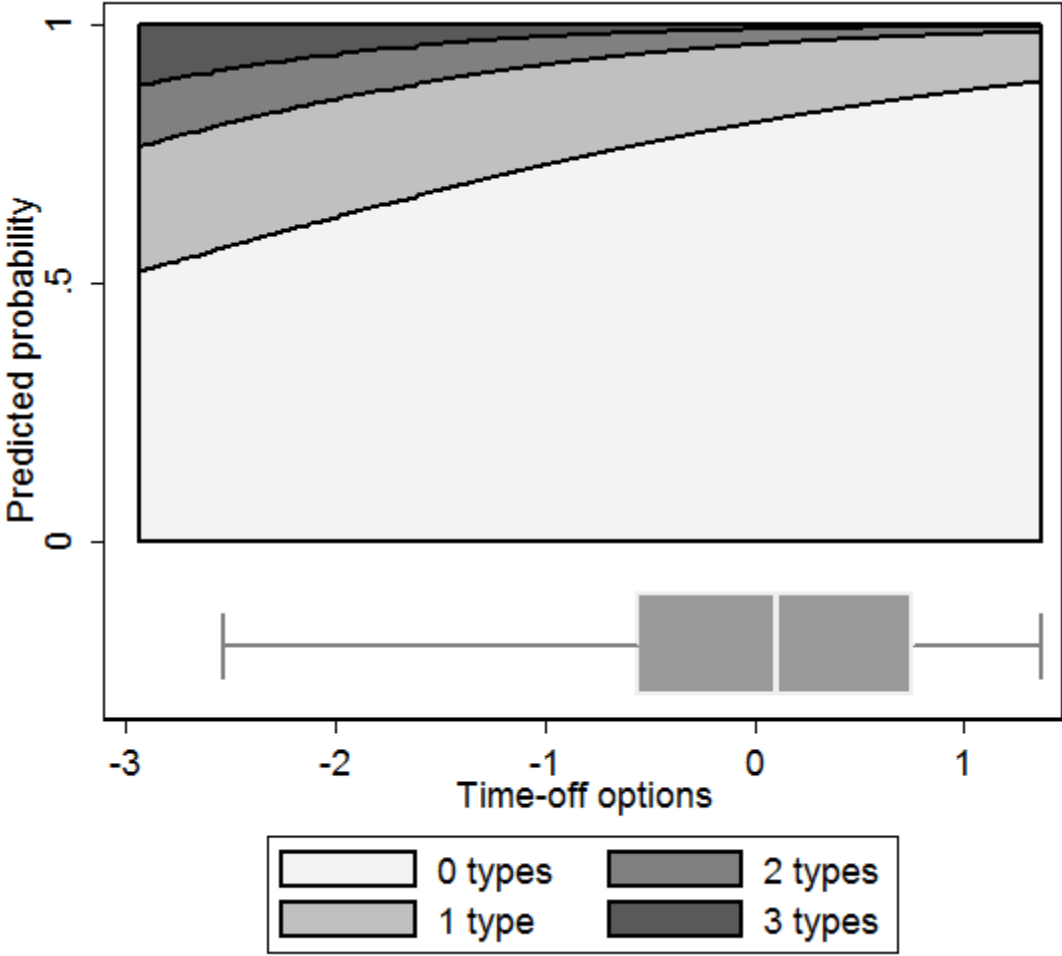
<b>VARIABLE</b>	<b>Model (1) Flexibility Control</b>	<b>Model (2) Flexibility Control and Job/Organizational Characteristics</b>	<b>Model (3) Full Model</b>
<b>FLEXIBILITY CONTROL</b>			
Flexible Work Arrangements	1.223 (.251)	1.298 (.265)	1.255 (.270)
Time-off Options	.612** (.109)	.591** (.100)	.629** (.108)
<b>JOB and ORGANIZATIONAL CHARACTERISTICS</b>			
Employed for at least 35 hours per week		1.083 (.296)	1.032 (.283)
Professional Job		.686 (.172)	.726 (.207)
Work at large company (at least 50 employees)		1.223 (.295)	1.167 (.291)
Work with Clients, Customers, General Public		1.476 (.506)	1.180 (.414)
Token Female Workplace Representation (15% or less)		2.408* (.842)	2.161* (.799)
Tilted Female Workplace Representation (16%-35%)		2.857* (1.235)	2.937* (1.274)
Other Female Workplace Representation: (36%-49%)		1.698 (.631)	1.603 (.567)
Other Female Workplace Representation: (50%-74%)		1.973* (.620)	1.942* (.616)
<b>SOCIODEMOGRAPHICS</b>			
College Graduate			1.149 (.324)
Low Income (<\$30,000 per year)			.840 (.217)
Age of Mothers			.980 (.017)
Number of Preschoolers (0-4)			1.174 (.184)
Number of Young Children (5- 8)			.973 (.224)
Number of Tweens (9-12)			1.174 (.215)
Number of Teens (13-18)			1.288 (.204)
Partner			.494**

			(.129)
Black			.989 (.313)
Hispanic			.797 (.383)
Other Non-white Race			1.084 (.460)
Constant	.297*** (.036)	.126*** (.061)	.418 (.383)
Overdispersion parameter (95% confidence interval)	(.910, 2.895)	(.611, 2.526)	(.134, 2.069)
N	441	441	441
Overall F-statistic	5.028**	3.342***	2.582***
Overall df	2	10	21
Overall p-value	.0066	.0003	.0002
Factors F-statistic	5.028**	6.141**	5.245**
Factors df	2	2	2
Factors p-value	.0066	.0023	.0058
MI minimal df	67224.01	638.41	299.48

Notes: Incidence rate ratios and standard errors reported here;

\*\*\*p-value<.001; \*\*p-value<.01; \*p-value<.05; regression analyses run on weighted data.

**Figure 2. Predicted Probability of Number of Career Harm Types Perceived**



**Note: All other variables are set at their means.**

## REFERENCES

- AAPOR. 2008. *Standard Definitions: Final Disposition of Case Codes and Outcome Rates for Surveys, 5th Edition*.
- Acker, Joan. 1990. "Hierarchies, Jobs, and Bodies: A Theory of Gendered Organizations." *Gender & Society* 4:139-169.
- Alarcon, Gene, Kevin J. Eschleman and Nathan A. Bowling. 2009. "Relationships between Personality Variables and Burnout: A Meta-Analysis." *Work & Stress* 23:244-263.
- Allen, Tammy. 2001. "Family-Supportive Work Environments: The Role of Organizational Perceptions." *Journal of Vocational Behavior* 58:414-435.
- Allison, Paul D. 2002. *Missing Data*. Thousand Oaks, CA: Sage.
- Alwin, Duane. F. and Jon A. Krosnick. 1991. "The Reliability of Survey Attitude Measurement." *Sociological Methods and Research* 20:139-181.
- Anderson, Deborah J., Melissa Binder and Kate Krause. 2003. "The Motherhood Wage Penalty Revisited: Experience, Heterogeneity, Work Effort, and Work-Schedule Flexibility." *Industrial and Labor Relations Review* 56:273-294.
- Baker, Michael and Kevin Milligan. 2008. "How Does Job-Protected Maternity Leave Affect Mothers' Employment?" *Journal of Labor Economics* 26:655-691.
- Baum, Charles L. 2003. "The Effect of State Maternity Leave Legislation and the 1993 Family and Medical Leave Act on Employment and Wages." *Labour Economics* 10:573-596.
- Bentler, Peter M. 2004. *Maximal Reliability for Unit-Weighted Composites*. University of California, Los Angeles, Department of Statistics Preprint No. 405.
- Bianchi, Suzanne M., John P. Robinson and Melissa A. Milkie. 2006. *Changing Rhythms of American Family Life*. New York: Russell Sage Foundation.

- Blair-Loy, Mary and Amy S. Wharton. 2002. "Employees' Use of Work-Family Policies and the Workplace Social Context." *Social Forces* 80:813-845.
- Bollen, Kenneth A. 1989. *Structural Equations with Latent Variables*. New York: Wiley.
- Bollen, Kenneth A. 2002. "Latent Variables in Psychology and the Social Sciences." *Annual Review of Psychology* 53:605-634.
- Bollen, Kenneth A., Jennifer L. Glanville and Guy Stecklov. 2007. "Socio-Economic Status, Permanent Income, and Fertility: A Latent-Variable Approach." *Population Studies* 61:15-34.
- Brown, Timothy A. 2006. *Confirmatory Factor Analysis for Applied Research*. New York: The Guilford Press.
- Browne, Irene and Joya Misra. 2003. "The Intersection of Gender and Race in the Labor Market." *Annual Review of Sociology* 29:487-513.
- Budig, Michelle and Paula England. 2001. "The Wage Penalty for Motherhood." *American Sociological Review* 66:204-225.
- Budig, Michelle J. and Melissa J. Hodges. 2010. "Differences in Disadvantage: Variation in the Motherhood Penalty across White Women's Earnings Distribution." *American Sociological Review* 75:705-728.
- Cameron, A. Colin and Pravin K. Trivedi. 1998. *Regression Analysis of Count Data*. Cambridge: Cambridge University Press.
- Casey, Patrick R. and Joseph G. Grzywacz. 2008. "Employee Health and Well-Being: The Role of Flexibility and Work-Family Balance." *Psychologist-Manager Journal* 11:31-47.

- Cha, Youngjoo. 2010. "Reinforcing Separate Spheres: The Effect of Spousal Overwork on Men's and Women's Employment in Dual Earner Households." *American Sociological Review* 75:303-329.
- Charlesworth, Sara. 2005. "Managing Work and Family in the Shadow of Anti-Discrimination Law." *Law in Context* 23:88-126.
- Chong, Dennis and Dukhong Kim. 2006. "The Experiences and Effects of Economic Status among Racial and Ethnic Minorities." *The American Political Science Review* 100:335-351.
- Crowley, Jocelyn Elise. 2013. *Mothers Unite! Organizing for Workplace Flexibility and the Transformation of Family Life*. Ithaca: Cornell University Press.
- Crowley, Jocelyn Elise and Marc D. Weiner. 2010. *What Mothers Want: Workplace Flexibility in the Twenty-First Century: Report to the Alfred P. Sloan Foundation*.
- Davidson, Martin and Raymond A. Friedman. 1998. "When Excuses Don't Work: The Persistent Injustice Effect among Black Managers." *Administrative Sciences Quarterly* 43:154-183.
- Eaton, Susan C. 2003. "If You Can Use Them: Flexibility Policies, Organizational Commitment, and Perceived Performance." *Industrial Relations* 42:145-167.
- Furchgott-Roth, Diana and Christine Stolba. 1999. *Women's Figures: An Illustrated Guide to the Economic Progress of Women in America*. Washington, DC: AEI Press.
- Gangl, Markus and Andrea Ziefle. 2009. "Motherhood, Labor Force Behavior, and Women's Careers: An Empirical Assessment of the Wage Penalty for Motherhood in Britain, Germany, and the United States." *Demography* 46:341-369.
- Gariety, Bonnie Sue and Sherrill Shaffer. 2001. "Wage Differentials Associated with Flexitime." *Monthly Labor Review* 124:68-75.

- Gariety, Bonnie Sue and Sherrill Shaffer. 2007. "Wage Differentials Associated with Working at Home." *Monthly Labor Review* 130:61-67.
- Glass, Jennifer. 2004. "Blessing or Curse? Work-Family Policies and Mother's Wage Growth over Time." *Work and Occupations* 31:367-394.
- Glass, Jennifer and Tetsushi Fujimoto. 1995. "Employer Characteristics and the Provision of Family Responsive Policies." *Work and Occupations* 22:380-411.
- Glauber, Rebecca. 2011. "Limited Access: Gender, Occupational Composition, and Flexible Work Scheduling." *The Sociological Quarterly* 52:472-494.
- Goldman, Barry M., Barbara A. Gutek, Jordan H. Stein and Kyle Lewis. 2006. "Employment Discrimination in Organizations: Antecedents and Consequences." *Journal of Management* 32:786-830.
- Gornick, Janet C. and Marcia K. Meyers. 2003. *Families That Work: Policies for Reconciling Parenthood and Employment*. New York City: Russell Sage Foundation.
- Grzywacz, Joseph G., Dawn S. Carlson and Sandee Shulkin. 2008. "Schedule Flexibility and Stress: Linking Formal Flexible Arrangements and Perceived Flexibility to Employee Health." *Community, Work, and Family* 11:199-214.
- Hegewisch, Ariane and Janet C. Gornick. 2008. *Statutory Routes to Workplace Flexibility in Cross-National Perspective*. Washington, DC: Institute for Women's Policy Research.
- Henly, Julia R., H. Luke Shaefer and Elaine Waxman. 2006. "Nonstandard Work Schedules: Employer- and Employee-Driven Flexibility in Retail Jobs." *Social Service Review* 80:609-634.
- Hilbe, Joseph. 2011. *Negative Binomial Regression, Second Edition*. Cambridge: Cambridge University Press.



- Hill, E. Jeffrey, Alan J. Hawkins, Maria Ferris and Michelle Weitzman. 2001. "Finding an Extra Day a Week: The Positive Influence of Perceived Job Flexibility on Work and Family Life Balance." *Family Relations* 50:49-54.
- Hofferth, Sandra L. and Sally C. Curtin. 2006. "Parental Leave Statutes and Maternal Return to Work after Childbirth in the United States." *Work and Occupations* 33:73-105.
- Johnson, Nancy Brown and Keith G. Provan. 1995. "The Relationship between Work/Family Benefits and Earnings: A Test of Competing Predictions." *Journal of Socioeconomics* 24:571-584.
- Kanter, Rosabeth Moss 1977. "Some Effects of Proportions on Group Life: Skewed Sex Ratios and Responses to Token Women." *American Journal of Sociology* 82:965-990.
- Klerman, Jacob Alex and Arleen Leibowitz. 1999. "Job Continuity among New Mothers." *Demography* 36:145-155.
- Kohut, Andrew, Scott Keeter, Carroll Doherty, Michael Dimock and Leah Christian. 2012. *Assessing the Representativeness of Public Opinion Surveys*. Washington, DC: The Pew Research Center for the People and the Press.
- Kolenikov, Stanislav. 2009. "Confirmatory Factor Analysis Using Confa " *The Stata Journal* 9:329-373.
- Kossek, Ellen Ernst and Susan J. Lambert. 2005. "Work-Family Scholarship: Voice and Context." Pp. 3-18 in *Work and Life Integration: Organizational, Cultural, and Individual Perspectives*, edited by Ellen Ernst Kossek and Susan J. Lambert. Mahwah, NJ: Lawrence Erlbaum.

- Krieger, Nancy and Stephen Sidney. 1996. "Racial Discrimination and Blood Pressure: The CARDIA Study of Young Black and White Adults." *American Journal of Public Health* 86:1370-1378.
- Lawley, Derrick Norman and Albert Maxwell. 1971. *Factor Analysis as a Statistical Method*. London: Butterworths.
- Little, Roderick J.A. and Donald B. Rubin. 2002. *Statistical Analysis with Missing Data, Second Edition*. New York: Wiley.
- Long, J. Scott. 1997. *Regression Models for Categorical and Limited Dependent Variables*. Thousand Oaks, CA: Sage.
- Marino, Teresa L., Charles Negy, Mary E. Hammons, Cliff McKinney and Kia Asberg. 2007. "Perceptions of Ambiguously Unpleasant Interracial Interactions: A Structural Equation Modeling Approach." *Journal of Psychology* 141:637-663.
- Martinengo, Giuseppe, Jenet I. Jacob and E. Jeffrey Hill. 2010. "Gender and the Work-Family Interface: Exploring Differences across the Family Life Course." *Journal of Family Issues* 31:1363-1390.
- Mennino, Sue Falter, Beth A. Rubin and April Brayfield. 2005. "Home-to-Job and Job-to-Home Spillover: The Impact of Company Policies and Workplace Culture." *The Sociological Quarterly* 46:107-135.
- Minnotte, Krista Lynn. 2012. "Perceived Discrimination and Work-to-Life Conflict among Workers in the United States." *The Sociological Quarterly* 53:188-210.
- Minnotte, Krista Lynn, Alison Cook and Michael C. Minnotte. 2010. "Occupation and Industry Sex Segregation, Gender, and Workplace Support: The Use of Flexible Scheduling Policies." *Journal of Family Issues* 31:656-680.

- Mulaik, Stanley A. 2009. *Foundations of Factor Analysis*. London: Chapman & Hall.
- Naff, Katherine C. 1995. "Subjective Vs. Objective Discrimination in Government: Adding to the Picture of Barriers to the Advancement of Women." *Political Research Quarterly* 48:535-557.
- Neath, Jeanne, Richard T. Roessler, Brian T. McMahon and Phillip D. Rumrill. 2007. "Patterns in Perceived Employment Discrimination for Adults with Multiple Sclerosis." *Work: A Journal of Prevention, Assessment and Rehabilitation* 29:255-274.
- O'Neill, June E. and Solomon William Polachek. 1993. "Why the Gender Gap in Wages Narrowed in the 1980s." *Journal of Labor Economics* 11:205-208.
- Operario, Don and Susan T. Fiske. 2001. "Ethnic Identity Moderates Perceptions of Prejudice: Judgments of Personal Versus Group Discrimination and Subtle Versus Blatant Bias." *Personality and Social Psychology Bulletin* 27:550-561.
- Pavalko, Eliza K., Krysia N. Mossakowski and Vanessa J. Hamilton. 2003. "Longitudinal Relationships between Work Discrimination and Women's Physical and Emotional Health." *Journal of Health and Social Behavior* 44:18-33.
- Pew. 2004. *Polls Face Growing Resistance, but Still Representative*. Washington, DC: Pew Research Center for People and the Press.
- Raykov, Tenko. 1997. "Estimation of Composite Reliability for Congeneric Measures." *Applied Psychological Measurement* 21:173-184.
- Reiter, Jerome P. 2007. "Small-Sample Degrees of Freedom for Multi-Component Significance Tests with Multiple Imputation for Missing Data." *Biometrika* 94:502-508.
- Richman, Amy L., Janet T. Civian, Laurie L. Shannon, E. Jeffrey Hill and Robert T. Brennan. 2008. "The Relationship of Perceived Flexibility, Supportive Work-Life Policies, and

- Use of Formal Flexible Arrangements and Occasional Flexibility to Employee Engagement Expected Retention." *Community, Work & Family* 11:183-197.
- Roth, Louise Marie. 2004. "The Social Psychology of Tokenism: Status and Homophily Processes on Wall Street." *Sociological Perspectives* 47:189-214.
- Royston, Patrick. 2004. "Multiple Imputation of Missing Values." *The Stata Journal* 4:227-241.
- Royston, Patrick. 2005. "Multiple Imputation of Missing Values: Update." *The Stata Journal* 5:1-14.
- Rubin, Donald. 1987. *Multiple Imputation for Non-Response in Surveys*. New York: John Wiley and Sons.
- Rubin, Donald. 1996. "Multiple Imputation after 18+ Years." *Journal of the American Statistical Association* 91:473-489.
- Sanchez, Juan I. and Petra Brock. 1996. "Outcomes of Perceived Discrimination among Hispanic Employees: Is Diversity Management a Luxury or a Necessity?" *The Academy of Management Journal* 39:704-719.
- Schwartz, Felice N. 1989. "Management Women and the New Facts of Life." *Harvard Business Review* January/February:65-76.
- Sellers, Robert M. and J. Nicole Shelton. 2003. "Racial Identity, Discrimination, and Mental Health among African Americans." *Journal of Personality and Social Psychology* 84:1079-1092.
- Sigel, Roberta S. 1996. *Ambition and Accommodation: How Women View Gender Relations*. Chicago: University of Chicago Press.
- Sijtsma, Klaas. 2009. "On the Use, the Misuse, and the Very Limited Usefulness of Cronbach's Alpha." *Psychometrika* 74:107-120.

- Skrondal, Anders and Petter Laake. 2001. "Regression among Factor Scores." *Psychometrika* 66:563-575.
- Spector, Paul E. 2009. "The Role of Job Control in Employee Health and Well-Being." Pp. 173-195 in *International Handbook of Work and Health Psychology, 3rd Edition.*, edited by Cary L. Cooper, James Campbell Quick and Marc J. Schabracq. Malden, MA: Wiley-Blackwell.
- Taniguchi, Hiromi. 1999. "The Timing of Childbearing and Women's Wages." *Journal of Marriage and the Family* 61:1008-1019.
- Thompson, Cynthia A., Laura L. Beauvais and Karen S. Lyness. 1999. "When Work-Family Benefits Are Not Enough: The Influence of Work-Family Culture and Benefit Utilization, Organizational Attachment, and Work-Family Conflict." *Journal of Vocational Behavior* 54:392-415.
- Waldfogel, Jane. 1997. "The Effects of Children on Women's Wages." *American Sociological Review* 62:209-217.
- Waldfogel, Jane. 1998. "Understanding the 'Family Gap' in Pay for Women with Children." *Journal of Economic Perspectives* 12:137-156.
- Webber, Gretchen and Christine Williams. 2008. "Mothers in 'Good' and 'Bad' Part-Time Jobs: Different Problems, Same Results." *Gender & Society* 22:752-777.
- White, Ian R., Patrick Royston and Angela M. Wood. 2011. "Multiple Imputation Using Chained Equations: Issues and Guidance for Practice." *Statistics and Medicine* 30:377-399.
- Williams, Joan. 2000. *Unbending Gender: Why Family and Work Conflict and What to Do About It*. New York: Oxford.

Williams, Joan and Holly Cohen Cooper. 2004. "The Public Policy of Motherhood." *Journal of Social Issues* 60:849-865.

Wood, Julia T. 2013. *Gendered Lives: Communication, Gender, & Culture*. Boston: Wadsworth.

## **APPENDIX A: Flexibility Control Questions**

1. How much control do you have in scheduling your work hours—that is, how much control do you have in setting the time you arrive at work and leave every day? [Flex1: Scheduling work hours]
2. How much control do you have in making sure your schedule is predictable? In other words, how much control do you have with regard to working overtime, extra hours, or some hours different than your regularly scheduled hours? [Flex2: Schedule predictability]
3. How much control do you have in the number of hours you work, such as being able to work part-time if you're full-time or full-time if you work part-time? [Flex3: Number of hours worked]
4. Some people are required to work at one employer-specified location, while other people have the choice of working at that location, or at another of the employer's locations, or at home. With that in mind, how much control do you have over where you work? [Flex4: Where one works]
5. Some things in life are predictable and can be scheduled, such as a regular doctor's appointment, or a non-emergency home repair. How much control do you have over short-term time off to address these ordinary predictable needs? [Flex5: Short-term time off for ordinary predictable needs]

6. Some things in life are unpredictable and cannot be scheduled, such as your or your child's sudden illness, or an emergency home repair. How much control do you have over short-term time off to address these out-of-the-ordinary unpredictable needs? [Flex6: Short-term time off for unpredictable needs]

7. Some things in life are predictable and occur regularly, such as going to school, taking classes, or volunteering in the community. How much control do you have over regular time off from work to do these sorts of predictable, regularly occurring things? [Flex7: Episodic time off to do regularly occurring things]

8. Some things in life take an extended amount of time, such as caring for a newborn or newly adopted child, having a serious health condition or caring for a family member with a serious health condition, or serving in the military. With this in mind, how much control do you have over longer-term or extended time off from work? [Flex8: Longer-term/extended time off]



**APPENDIX B. Unstandardized Factor Loadings and Reliabilities for the Flexibility Measures**

	Case-wise deletion			Imputed data		
	Factor loadings	Unique variances	Reliability	Factor loadings	Unique variances	Reliability
<b>Factor 1</b> ->Flex1	1.09*** (.061)	1.173*** (.122)	.503	1.095*** (.075)	1.151*** (.119)	.510
<b>Factor 1</b> ->Flex2	.969*** (.062)	1.093*** (.103)	.462	.971*** (.069)	1.086*** (.101)	.465
<b>Factor 1</b> ->Flex3	.874*** (.062)	1.153*** (.102)	.399	.883*** (.068)	1.128*** (.098)	.409
<b>Factor 1</b> -> Flex4	.857*** (.074)	1.687*** (.126)	.304	.857*** (.080)	1.660*** (.132)	.306
<b>Factor 2</b> ->Flex5	.827*** (.058)	.358*** (.072)	.656	.825*** (.044)	.344*** (.041)	.664
<b>Factor 2</b> ->Flex6	.795*** (.058)	.434*** (.055)	.593	.790*** (.045)	.419*** (.042)	.598
<b>Factor 2</b> ->Flex7	.916*** (.051)	0.791*** (.067)	.515	.897*** (.061)	.869*** (.078)	.481
<b>Factor 2</b> ->Flex8	.600*** (.060)	1.009*** (.091)	.264	.611*** (.058)	1.028*** (.077)	.266
<b>Factor variances and covariances</b>						
<b>Var (Factor 1)</b>	1.000 (constrained)			1.000 (constrained)		
<b>Composite reliability (Factor 1)</b>	.495			.498		
<b>Var (Factor 2)</b>	1.000 (constrained)			1.000 (constrained)		
<b>Composite reliability (Factor 2)</b>	.579			.574		
<b>Cov (Factor 1, Factor 2)</b>	.588*** (.051)			.577*** (.048)		
<b>N</b>	399			441		

Notes: \*\*\* Indicates statistical significance at  $p < .001$ . Factor 1=Flexible Work Arrangements and Factor 2=Time-off Options; Flex1-Flex8 correspond to each of the eight ordered flexibility measures, with full definitions contained in Appendix A. Flex1= Scheduling work hours; Flex2= Schedule predictability; Flex3= Number of hours worked; Flex4= Where one works; Flex5= Short-term time off for ordinary predictable needs; Flex6= Short-term time off for unpredictable needs; Flex7= Episodic time off to do regularly occurring things; Flex8= Longer-term/extended time off. Composite reliabilities are based on polychoric correlations of the variables Flex1-Flex8.

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<sup>1</sup> Interestingly, Schwartz later modified her strong views regarding Mommy Track costs. See Wood (2013, 263).

<sup>2</sup> Caregiving here relates solely to child and not elder care responsibilities.

<sup>3</sup> We used the American Association for Public Opinion Research's (AAPOR) COOP3 cooperation rate and RR3 response rate definitions in our calculations. See AAPOR (2008). The cooperation rate is the proportion of respondents interviewed relative to the number of eligible respondents contacted. The response rate is the proportion of respondents interviewed relative to the number of eligible respondents in the sample. The response rate reported here is considered within the range of industry standards. See Kohut et al. (2012) and Pew (2004). We did not observe any systematic patterns of nonresponse bias, and our sample of working mothers is representative of working mothers nationwide (for additional information on these latter points, please contact the authors).

<sup>4</sup> If our sample included other sociodemographic groups, we could make comparisons related to harm perceptions among them. See the Discussion and Conclusions section for a further explanation of our sample and its limitations.

<sup>5</sup> Imputing values for categorical measures of a sample's social and demographic features is now quite common in both the social and medical sciences. For example, multinomial variables can be imputed using the multinomial logit link with passive imputation of the category-specific dummy variables. Ordinal variables and count variables can be imputed using an ordinal logit link. Other variables can be imputed using their natural links and exponential distribution families: logit link for binary variables and identity link for continuous variables. For more on the specifics of imputation, see Royston (2004) and White, Royston, and Wood (2011).

<sup>6</sup> In addition, the quality of the measurement model is quantified by the composite reliability index (Raykov 1997), which plays the role of and has an interpretation similar to the coefficient of determination in regression analysis. In simple terms, it is the overall fraction of the item variance explained by the latent factor. High quality, carefully designed specialized psychometric instruments may achieve a composite reliability of 0.8–0.9. In the context of survey research, however, lower values of 0.5–0.7 are more typical (Alwin and Krosnick 1991).

<sup>7</sup> More precisely, to define a professional job, we used the List of Standard Occupational Classifications (SOC) as codes for jobs rather than industries. The List of SOC is defined by the Department of Labor, Bureau of Labor

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Statistics, Occupational Employment Statistics. We then defined a professional job as any one listed that requires an academic degree, advanced certification, or some other type of formal training.

<sup>8</sup> A drawback of factor regression is that it is known to produce biased estimates for the latent factor coefficients because of unaccounted measurement error. See Skondral and Laake (2001).

<sup>9</sup> With respect to our assumption that the three types of discrimination are equally important and thus can be added into one dependent variable, this was both a theoretical and methodological decision. The issue of estimating the importance weights of each component in a variable is typically handled on a case-by-case basis (Bentler 2004; Bollen, Glanville, and Stecklov 2007; Sijtsma 2009). With the relatively rare perceived discrimination events at issue here, applying unit weights appeared to be a sound approach. In addition, in preliminary analyses, we utilized logistic regression models for each perceived discrimination type and logistic regression for *any* type of perceived discrimination. Compared to all of these models, the negative binomial method that treated all perceived career impediments as equally important in one dependent variable produced the most parsimonious and easily interpretable results.

<sup>10</sup> Allison (2002) has suggested that multiple imputation standard errors may be biased when variance inflation factors exceed 2.5. The two highest variance inflation factors were 2.08 for flexible work arrangements and 2.01 for time-off options.

<sup>11</sup> The overall F-statistics at the bottom of Table 3 were computed as:

$$F = \hat{\beta}'\hat{V}^{-1}\hat{\beta}/k$$

where  $\hat{\beta}$  are parameter estimates from the negative binomial regression,  $k$  is the number of parameters (i.e., number of explanatory variables), and  $\hat{V}$  is their estimated variance-covariance matrix obtained using Rubin's rules. The numerator degrees of freedom of this F-distribution is the number of parameters (i.e., explanatory variables in the regression), and the denominator degrees of freedom is the minimum MI degrees of freedom (Reiter 2007).

<sup>12</sup> Note that since the standard deviation in this case for the factor is less than 1 at .927, we calculate the rate of the decline in perceived career harm experiences as  $1 - \exp(\hat{\beta} * [\text{standard deviation of the factor}])$ , where  $\hat{\beta}$  is the negative binomial regression coefficient.