Do Unions Matter for Work-Life Flexibility Policy Access and Use?

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ABSTRACT

Using an original survey data from a sample of 897 workers nested within departments across eight unionized establishments in the United States, we examine the influence of individual and collective voice measures on employee access to and the use of six work-life flexibility practices. Our collective voice measures include union pay-benefits effectiveness and union schedule support effectiveness at the individual and union (group) levels. Our analyses indicate that unions perceived to effectively support workers' schedule needs are associated with a higher likelihood of individual access to flex-time, gradual return to work, and a compressed work week. We also find that unions perceived to effectively negotiate higher wages and benefits and enforce the collective agreement are associated with a lower likelihood of access to flex-time and a compressed work week. We obtain significant results for these collective voice measures on the use of various work-life flexibility practices as well. These associations hold even after controlling for supervisor support, contract language, and other job characteristics. These findings suggest that union behavior can have a significant and varied influence on access to and use of work-life flexibility practices.

Given the rise of female labor force participation, the increase in dual earner couples, and the growing work and family conflict among men, it is not surprising that a large number of American employees would like more access to work-life flexibility practices, such as flextime, voluntary telework, and leave for family and personal needs (Tang and MacDermid 2010). However, access to and use of these practices in U.S. workplaces are often driven by managerial discretion and employer control, especially for working class jobs (e.g., police, secretarial, and industrial workers) (Kelly and Kalev 2006). Given this situation, there is a need within the work-life literature for greater understanding of labor unions' roles as a form of collective voice in supporting workers' access to and use of work-life flexibility practices.

Very little literature exists regarding the relationship of U.S. labor unions with establishment-level work-life flexibility policies. Findings are mixed; the focus is often on a limited set of policies, and unions are treated as a control variable rather than the focal point of the studies. Guthrie and Roth (1999) and Kelly and Dobbin (1999) found that unions did not have a significant effect on maternity leave policy adoption. Deitch and Huffman (2001) and Osterman (1995) found no significant relationship of union measures with a broad set of care and flexible scheduling practices. Golden's (2009) study reported that unions are associated with less access to formal and less formal flexible scheduling. Glass and Fujimoto (1995) found unions are positively associated with leave benefits but negatively associated with flex-time and part-time work. These findings leave unresolved whether collective bargaining can be an effective means to increase work-life flexibility benefits and raise questions about the role of U.S. unions in fostering access to and the use of work-life flexibility practices.

Unions' influence over workers' access to and use of work-life flexibility practices has not been thoroughly explored in either the work-life or labor relations literature. Traditionally,

analyses of unions have centered on their ability to collectively bargain better wages, benefits, and working conditions than non-union firms. Further, core concepts in the labor relations literature have not been widely applied to work-life flexibility practices. Despite its relevance, only Budd and Mumford (2004) have applied the exit/voice model to work-family issues.[1] Similar to other studies, Budd and Mumford produced mixed results; employees in unionized establishments in the U.K. were less likely to have access to flexible work hours and work-at-home arrangements, but more likely to have access to leaves, child care support and job sharing. Since the Budd and Mumford research was conducted, flexible work arrangements have become more commonplace and the workforce has become even more diverse with respect to gender, family demands, and work-hours (Kossek and Distelberg 2009).

In this article, we extend their research by examining the relative influence of collective and individual voice, supervisor support, individual employee needs, and working conditions on individuals' access to and use of work-life flexibility policies using a sample of U.S. workers. In addition, we use a multi-level analysis to assess the influence of union group effects on individual access to and use of work-life flexibility practices. We also draw upon voice theory from the labor relations literature to expand the concept of collective voice to include how effective labor unions are in obtaining good wages and benefits, solving problems at the workplace, and helping workers deal with issues related to work schedules. In addition to collective voice, we assess the impact of individual voice or the say workers have in their work on worker access to and use of work-life flexibility. Our research also enhances the general

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[1] For discussions of exit/voice in labor relations see Freeman (1976; 1978; 1980) and Freeman and Medoff (1979; 1983; 1984)

work-life literature, which often confounds the access to with the use of work-life flexibility practices (Kossek 2005).

In unionized firms, work-life flexibility is typically governed by the collective agreement. Where work-life flexibility policies have been negotiated and codified collectively, workers accessing these policies are protected by formal processes, including the grievance procedure. However, unions may play a role in work-life flexibility beyond the collective agreement by engaging in supportive behaviors that give voice to workers regarding their work-life needs. In addition to the collective agreement, these union support behaviors, such as helping workers solve scheduling problems, are another form of collective voice.

Even in a unionized environment, access to and use of flexibility practices is often left up to individual initiative or supervisor discretion, and vary with the organization of work (Kossek, Berg, and Piszczek 2011). In addition to measures of individual voice, our research incorporates worker perceptions of line management practices in enacting work-life flexibility policy in their departments, which we know is critical for effective policy implementation (Purcell and Hutchinson 2007)

Literature Review and Theoretical Considerations

Work-life flexibility practices are workplace policies and practices that give employees the prerogative to adjust when, where, and how they work in order to balance work and non-work demands. Common forms include leaves for health, caregiving, military or personal reasons; flexible schedules such as flex-time and telework; and scheduled work hours. In unionized settings, flexible scheduling and leaves may be codified in the collective bargaining agreement, but access to and use of work-life flexibility practices often vary across jobs and

departments within the firm, similar to nonunion settings. Our conceptualization of work-life flexibility includes not only flexibility for family needs but more broadly flexibility for workers who have flexibility needs other than elder or child care demands (Kossek, Lewis, and Hammer 2010).

The work-life literature consists of a number of studies that simply examine the *adoption* of formal flexibility policies at the organizational level and focus on the impact of these policies on broad economic and organizational determinants (Goodstein 1994; Goodstein 1995; Ingram and Simons 1995; Osterman 1995; Milliken, Martins, and Morgan 1998; Wood, de Menezes, and Lasaosa 2003). Other studies in the work-life literature criticize this approach, pointing out that just adopting formal work-life flexibility policies at the organizational level does not ensure that employees will actually have access to these policies or the ability to use them. The critical issue for employees is not whether the employer adopts work-life flexibility policies, but whether they can access and use these policies. Little research has been conducted on comparing worker experiences with work-life flexibility access and use across a range of practices. Moreover, recent reviews show few work-life studies separately measure access and use and often conflate these measures by using them interchangeably (Kelly, Kossek, Hammer, Durham, Bray, Chermack, Murphy, and Kaskubar, 2008; Kossek and Distelberg 2009). There are some studies concerning access to and use of specific flexible work practices such as teleworking (Kossek, Lautsch, and Eaton 2006). Golden (2001) used the U.S. Current Population Survey (CPS) to estimate the likelihood that an individual has access to a flex-time schedule controlling for individual, occupation, and workplace characteristics. Moreover, Golden (2009) found that greater access to flexible schedules for managerial and professional workers, men, and private sector employees is achieved through largely informal arrangements. While valuable, none of

these studies of access and use explicitly examine U.S. unionized workers' experiences with access to and use of work-life flexibility practices in the context of their workplace.

The role of collective voice in work-life flexibility is also absent in the work-life literature. The empirical and theoretical implications of collective organizations, such as unions, with respect to the access to and use of work-life policies remain largely unexplored. The lack of research examining employee experiences with access to and use of work life flexibility policies across a range of practices offered in workplaces governed by collective bargaining agreements is a critical omission for the work-life field for a number of reasons.

First, in settings where work practices are jointly determined, there is greater transparency and articulation about why a policy is being adopted. In a unionized setting, access to work-life flexibility is negotiated rather than unilaterally offered by management. Employers and unions must be explicit about what practices they want to codify in the collective agreement and why one group of workers may have access to flexibility while another group may not.

Second, a study of flexibility in unionized settings enhances the general state of knowledge in the work-life field by increasing the diversity of jobs and class of employees studied (Gerstel and Clawson 2001). Unions represent a diverse set of workers across a variety of industries and occupations, including production workers, a wide variety of service workers, and professionals in the private and public sectors (BLS 2012). A study focused on the role of unions across multiple industries and occupations contributes to expanding the work-life literature beyond affluent professionals, and provides the opportunity to determine the impact of worker representation on individual access to and use of work-life flexibility practices (Grundy, Bell, and Firestein 2000; Gerstel and Clawson 2001).

Third, analyzing work-life issues from a collective voice perspective introduces the concept of multiple stakeholders in the work-life debate, which is too often viewed as an individual-employer bargain. As independent representatives of workers, labor unions provide an additional voice to advocate for work-life flexibility from an employee perspective. Yet, we know very little about how this collective voice influences the practice of work-life flexibility at the workplace.

The collective voice model of unions has its origin in research conducted by Freeman (1976; 1978; 1980) and Freeman and Medoff (1979; 1983; 1984). In the model, *voice* is presented as an alternative. In a traditional labor market, when dissatisfied with working conditions, workers can quit or exit their current employer and search for another job in the labor market. *Voice*, however, offers an alternative to exit. When dissatisfied with employment, the worker may engage in voice and discuss problems at the workplace with the employer without exiting employment. The union provides the voice mechanism to carry out this discussion, and therefore lowers quit rates.

The collective voice model has been applied to work-life policies by Budd and Mumford (2004). Using the British WERS98 data, they examined whether unions increase or decrease the provision of family-friendly benefits. Budd and Mumford separated the effects of unions on work-family benefits into the monopoly effect, the collective voice effect, and the facilitation effect. In their schema, the monopoly effect refers to the use of union bargaining power, the collective voice effect regards how unions respond to union member priorities for formal work-family benefits, and the facilitation effect pertains to how unions share information about these benefits with their members. They postulated that unions will use their monopoly power,

obtained through high union density, as well as the collective voice mechanism to increase family-friendly policies. The proxy for collective voice in their study is unions that represent a higher proportion of women and have regular union meetings. In their analysis of workplaces, they found that British workplaces with at least one recognized union are more likely to have parental leave, special paid leave for short-term family issues, job–sharing options, and to a lesser extent, subsidized childcare. They attributed these results to monopoly and collective voice effects.

They also examined the facilitation effect through an analysis of individual survey data examining the impact of union membership on individual awareness of family-friendly policies. They found that union membership had a positive relationship with individual awareness of some paid leaves and job-sharing, but a negative relationship with flexible hours and work-at-home. They recognized that these differences may be driven by variations in practices available in union and nonunion workplaces or by differences in the awareness of practice availability between union and nonunion workers. In the end, they concluded that labor unions benefit workers by widening the effective coverage of family-friendly policies, but more research is needed to understand the influence of unions on the awareness of family-friendly policies through the union facilitation effect (Budd and Mumford 2004).

We extend Budd and Mumford's work in several directions. Methodologically, we examine the influence of unions on both access to and use of work-life flexibility policies among a small sample of U.S. unions and unionized organizations. In addition, we concentrate on access to and use of a broad range of flexible schedules, which are not often found in large national surveys. We are able to account for differences within establishments by focusing on the

department level as the key access point of flexible work schedules. We are also able to get an accurate picture of access to flexible scheduling from multiple sources, such as individuals, supervisors, and union officials.

In addition, we provide an alternative theoretical conceptualization of collective voice, which distinguishes individuals' assessment of union pay-benefits effectiveness and their assessment of union schedule support behaviors. Union pay-benefits effectiveness is a measure of power, or the extent to which unions are effective in negotiating good wages and benefits, enforcing the collective agreement, and solving general problems at the workplace. Union schedule support effectiveness is a measure of the extent to which unions help workers deal with issues related to their work schedules. This support dimension is new to the literature and explicitly recognizes the importance of union behavior beyond negotiating and enforcing agreements. Because unionized workers often get access to flexible schedules beyond those explicitly articulated in collective agreements, it is important to understand what unions do beyond contract negotiations to support access to flexible schedules. These union schedule support effectiveness behaviors go beyond providing better information and awareness of flexibility practices to members, i.e. Budd and Mumford's facilitation effect, and include counseling individual workers and problem solving with supervisors around worker schedule needs.

Research typically examines the impact of unions on work-life flexibility policies and practices at the individual level across union and nonunion workers (Budd and Mumford 2004; Golden 2009). It remains an open question, however, whether there are union group effects on access to and use of work-life flexibility practices. Unions are inherently collective or group

phenomena and shared views of the union's position may be just as, or more important, to outcomes as are individual views. For example, individuals may perceive their union as not being very supportive of the use of a flexible work policy, and this might make that individual less likely to use a policy. However, individuals also may be more likely to use a policy if they are part of a union with a strong *shared* sense of support, i.e. in which a high number of members perceive the union as being more supportive of work-life flexibility. Group and individual views of the union's pay-benefit and schedule support effectiveness may then affect both access and use of flexible work policies. To allow for possible differences between individual and group views of their union, we measure the two perceptions of unions as an average of members of the union to which an individual belongs (group) and the deviation of the individual from that group assessment (individual).

From our perspective, any consideration of voice in the analysis of access to and use of work-life flexibility practices needs to account for collective and individual voice. Given that the applicability of flexible schedules differs across jobs, and that accessing and using flexible schedules often depend on individuals' negotiations with their supervisors. Given this, accounting for the say employees have in their work and their willingness to express their concerns to their supervisor is central to understanding the extent to which employees have access to and use flexible scheduling. Because collective voice and individual voice coexist in unionized workplaces, we account for both in our analysis and examine how each is associated with access to and use of various flexible schedules. We would expect that both collective voice and individual voice would have a positive association with access and use.

Our analytical model can be conceptualized as:

(1) $$\Pr(A_i, U_i) = \Lambda\left(\alpha + \beta X_i + \lambda Y_i + \phi V_i + \delta Z_i + \varepsilon\right)$$

Equation 1 is a bivariate probability where A_i is an indicator of whether an individual has access to a flexible schedule and U_i is an indicator of whether that individual uses a flexible schedule. The likelihood of access and use is determined by individual characteristics (X_i) such as gender, family status, and elder care demands. It is well documented that individual need is linked to use of work-life flexibility. For example, studies show that women employees, who are responsible for managing care for children under 18, have elder care demands, or are in dual career or in single parent families, are more likely to be interested in using flexibility (Eby, Casper, Lockwood, Bordeaux, and Brinley 2005; Kossek and Michel 2010).

Workplace characteristics (Y_i) include supervisor support, hours worked, job demands, occupation, sector, and contract language.[2] Supervisors often have considerable discretion and act as gatekeepers to work-life flexibility (Kelly and Kalev 2006). Job demands of the work unit, such as workload, as well as work hours have also been shown to influence workers' access to flexibility (Powell and Mainiero 1999). Work organization and the nature of the job play an important role in access to work-life flexibility practices. Those in departments that are understaffed or whose work is highly interdependent with others are less likely to gain access to work-life flexibility practices. In contrast, increases in workload and associated long working hours have been consistently shown to be primary reasons workers *use* flexible working practices (Buchanan and Thornthwaite 2001). While long hours and high workloads may restrict

[2] An appendix providing the questions associated with each variable in the analyses and their scale reliabilities is available on our web site: www.thesustainableworkforce.org.

access to work-life flexibility practices, we would expect positive association of these work organization characteristics with the use of work-life flexibility.

Occupations are also associated with work-life flexibility practices. Golden (2001) used the CPS to estimate the likelihood that an individual had access to a flex-time schedule. He found that half of the variance in access was associated with detailed occupation and industry, and that managerial, professional, technical, and sales jobs had greater access to flex-time schedules. Industry played a dominant role in the access to work-life flexibility practices for professionals.

Voice measures (V_i) include union schedule support effectiveness (individual and group level), union pay-benefits effectiveness (individual and group level), and individual voice. We would expect collective voice and individual voice measures to increase the likelihood of accessing and using a flexible schedule, controlling for individual and workplace characteristics. Organizational effects, such as public or private sector, are captured by the Z_i ‘s.

We test equation 1 against six different flexible scheduling options: flex-time, which allows employees to vary the starting and ending times of the work day, flex-shifts, where employees can exchange or vary their shift schedule, compressed workweeks, compensatory time, gradual return to work after illness or child birth, and working-at-home. By examining the varied dimensions of flexible schedules, we can observe the differential impact of collective and individual voice measures on flexible schedules. We also expect variation by type of flexible schedule across occupations and work characteristics. For example, professionals are more likely to have access to telecommuting than blue collar workers, and those who work in highly

interdependent work settings may have less opportunity to take compensatory time or work part-time.[3]

Method and Sample

Data Collection

The analysis for this paper comes from a unique study of work-life flexibility in eight unionized public and private organizations across the United States. As part of the project, we visited each establishment and conducted interviews with managers, supervisors, and local union officials in order to understand the context in which flexibility policies were negotiated and how they are implemented. We also conducted a telephone survey of employees stratified by departments. The employees in our sample represent a cross section of occupations including professionals, clerical and technical employees, operators, and an array of service workers. In addition, the organizations include a private and a public university, a county government, a pharmaceutical company, a federal government agency, a food manufacturer, an oil refinery, and

[3] The equation 1 specification allows for dependence between access and use as only those that have access to a flexible schedule are able to use such a schedule. We test for the possibility of non-independence between access and use associated with unmeasured factors with a sample selection model. We find no evidence that factors, other than those included in our model, affect use conditional on access. There is a more global selection issue of whether individuals choose to work in unionized organizations in order to better access work-life flexibility policies. This type of selection has been extensively studied in the context of union membership and wages. As noted in the introduction, estimates of the effect of unions on work-life practices are mixed in significance and sign. We are dubious about its effect in this instance as the work-life flexibility practices studied here may be as or more available in nonunion than in union jobs, but empirical evidence will have to wait on a comprehensive data set on union and non-union work-life practices.

a metropolitan police department. The surveyed establishments were located on the West and East Coasts, and the Midwest. Although we cannot claim our sample is representative of all unionized workers in the U.S., our work includes major unionized industries and occupations and reflects the diversity of the unionized workforce.[4]

Our research design focuses on depth of knowledge in gathering information at multi-levels within the establishment (individual, supervisor, general manager, union). While this approach sacrifices some breadth, it yields detailed insights into how work-life flexibility practices function across a wide range of unionized organizations. It also allows us to go beyond studies on flexibility policy availability (Osterman 1994; Osterman 1995; Eaton 2003) and present new measures that influence the ability of workers to actually access and use work-life flexibility practices within their respective jobs, regardless of whether formal language about such practices exists in company policy or the collective bargaining agreement.

Sample

In all, 897 workers, 76.9% of those surveyed, provided full information to the survey.

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[4] Based on our review of currently available data, there is no U.S. nationally representative data set of work-life flexibility practices in unionized establishments to determine a baseline for comparison. The Bureau of National Affairs (BNA) maintains a database of approximately 20,000 union contracts, but this database does not contain useable data on work-life flexibility practices. Similarly, other surveys such as the National Compensation Survey or the CPS do not provide systematic information on work-life flexibility (Kossek and Distelberg, 2009). Another database from the Labor Project for Working Families (http://www.working-families.org/network/) is more focused on work-life policies, but relies on unions to provide it with information about their work-life flexibility contract provisions, and is therefore not representative.

The worker responses were supplemented with data from supervisors about the workload in specific departments. We further supplemented the data with indicator variables for contract language covering specific flexible scheduling practices. Whereas some language may provide stronger rights to access than others, we use a general measure, indicating the presence of any type of language regarding the practice. At six organizations, individuals were selected for the survey with a stratified random sample generated from a list of employees provided by management and the union. Of the 1061 employees selected from these six organizations, 795 employees, 74.9%, completed the survey. Labor and management were unable to agree on releasing an employee list at two establishments. In these two locations, we had to provide workers the opportunity to self-select into the survey sample. Response rates were lower at these locations, with 28 and 15 percent of eligible employees, 70 and 32 workers respectively, participating; 98 percent of those who did participate completed the survey. The number of responses at these organizations, 11% of the total sample, was smaller than the other organizations that participated. [5] Our final sample of 897 covered 115 departments and 20 unions

[5] It is possible that those who self-select into a study on flexibility policies and practices are more likely to be users or have strong feelings about this issue and this might bias our measures at these two organizations. Drawing on our site visits and interviews with human resource managers, supervisors, and union officials, we believe this bias is minimal. Our interviews showed the workforces to be predominantly male and to work longer hours than other sites in our sample. This is consistent with a comparison of the sample means for the two sites compared with the other six. Moreover, the mean values on other measures such as individual voice and union schedule support effectiveness were consistent with our other sites. We also provide some control for this bias with an indicator for the opt-in locations. The variable was not significant for four of the six access practices and

across the 8 organizations. There were, on average, 45 members per union and 8 employees per department. There were multiple unions in four of the establishments.

Measures

Table 1 provides means and standard deviations for the key variables in our model. The dependent variables in our analysis are dichotomous measures of whether one has access to or use of six flexible scheduling practices: *flex-time, flex-shifts, compressed work weeks, compensatory time off*[6]*, gradual return to work after childbirth, adoption or illness*[7], and *work-at-home* on a regular basis. These measures combine employee and supervisor responses to each of the flexible scheduling options. We asked employees if their supervisors allow them to access each flexible scheduling practice and supervisors if they make each flexible scheduling practice available to their employees. Access for these flexible scheduling practices was coded as yes if

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significant, but not large, for two practices. Further, inclusion of the opt-in variable did not affect the estimates or significance of other coefficients (results available from authors).

[6] Compensatory time typically applies to public sector employees or employees not subject to overtime payments. Private sector employees must legally be paid for overtime, if they are eligible. Our data includes private sector employees who report using comp time, although they may not legally be eligible for it. Yet what is legal and what employees experience may differ. Our interest here is in reporting actual employer and employee practice. Although public employers are allowed to provide compensatory time, the law does not require the provision of compensatory time and some public employees in our sample indicate they do not have access to comp time.

[7] The gradual return flexible scheduling practice is available to both men and women.

either the employee or supervisor indicated availability of the practice.[8] Employees who have access to each flexible scheduling practice were also asked if they currently use the practice. Use for these flexible scheduling practices was coded positive for those that use the practice. We emphasize that the work-life flexibility practices we focus on in this study are not of the type designed to shift costs onto employees or make work more unpredictable. Rather, these practices are more a reflection of balancing employer and employee interests for flexibility across work and non-work lives.

Our measure of *Individual voice* includes 3 items that asked respondents about the extent to which they had a say on their job. *Union schedule support effectiveness* includes 2 items that asked respondents about the extent to which the union is effective in helping them with their work schedule needs. *Union pay-benefits effectiveness* is a 5 item scale that asks respondents about the extent to which the union effectively negotiates good benefits, enforces the collective agreement, and helps workers solve problems on the job. For ease of interpretation, we transformed the voice measures and some workplace characteristics to a 0 to 100 scale.[9] [10]

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[8] A recent Council of Economic Advisors Report entitled *Work-life Balance and the Economics of Workplace Flexibility*, March 2010, points out that discrepancies often exist between large employer and employee surveys about the availability of work-life flexibility practices. However, we do not see huge disagreements among supervisors and employees in our data. Supervisors and employees agree about access to flexible schedules in the vast majority of cases, and disagreements are not large and do not reflect a systematic bias. Unlike many surveys, we are able to take advantage of employee and supervisor perspectives on access to flexible schedules. This approach increases the accuracy of our access measure.

[9] An appendix providing a list of the questions associated with each variable in the analyses and their scale reliabilities is available on our web site: www.thesustainableworkforce.org.

{{Place Table 1 about here}-

Fifty-five percent of respondents in our sample are women; 42 percent have one or more children under the age of 18 living in their household, and 19 percent provide elder care. Administrative support is the largest single occupation in our sample (34 percent). Managers and professionals together also total 34 percent, and blue collar workers comprise 19 percent of the sample (not shown in the table). Respondents work 41 hours per week on average. They also report a relatively high average level of supervisor support, which is measured by a 5-item scale that asks respondents about the extent to which supervisors support their work schedule as well as work and family demands. In addition, respondents report high average levels of task interdependency (item 4-scale about coordinating work with others) and are associated with high average workloads as reported by supervisors. Relative to the U.S. labor force, our sample has a higher proportion of women and administrative support personnel, but the same average weekly hours of work (BLS 2009: various tables).

Over half of our sample report access to flex-time, flex-shifts, compensatory time, and gradual return to work. Thirty-six percent report access to compressed work weeks and 19 percent are able to work-at-home on a regular basis. Of those that have access, 54 percent

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[10] We conducted a confirmatory factor analysis to assess reliability and convergent validity of the measures used in our analyses. Each measure loaded distinctly on its theoretically defined latent dimension. Moreover, the alpha reliability estimates for each of measures are greater than 0.70, indicating a high level of internal consistency.

actually use flex-time. Between 32 and 40 percent of those with access, use flex-shift, compensatory time, compressed work weeks, or work-at-home flexibility practices. Gradual return to work is used by 23 percent of those with access. Thus, there is widespread access and use of flexible scheduling practices in the sample and considerable variation in access and use across practices.

Estimation Strategy

The dependent variables in equation (1) are bivariate measures of whether the respondent is employed in a job that has access to flexible work-life-practices and whether the individual uses those practices. Our data were measured and collected at the level of the individual, the department, union, and within organizations. Thus, there are likely error components associated with minor omitted factors, non-linearities or measurement errors at each of these levels.[11] Equation (1) can be modified to include error components:

(1a) $\Pr(A_{iduo}, U_{iduo}) = \Lambda\left(\alpha + \beta X_i + \lambda Y_i + \phi V_i + \delta Z_i + \varepsilon_i + \eta_d + \mu_u + \tau_o\right)$ where

i, d, u, & o are indexes for the individual, department, union, and organization
X_i are individual characteristics
Y_i are workplace characteristics
V_i are voice characteristics
Z_i are characteristics of the organization
ε_i is the individual component of the error term,
η_d is the departmental component of the error term,
μ_u is the union component of the error term,
τ_o is the organizational component of the error term.

[11] Such non-independence in errors may be referred to as a random effect, error component, or multi-level error depending on discipline. We use the term error component through the remainder of the paper.

Given the structure of the data, the departmental and union error components are nested under the organizational component, but are not nested with respect to one another. We test for the presence of error components at each of these levels and only retain those error components for which the null of no-error component can be rejected in a 5% or better test of significance.

Analysis

We use a logistic model to examine the impact of our voice measures (*individual voice, union pay-benefits effectiveness and union schedule support effectiveness*), union contract language, workplace characteristics (*supervisor support, work hours, task interdependency, workload*), organizational characteristics (*public sector, opt-in)*, individual characteristics (*gender, children, number of children, elder care, and marital status*), and occupations on the likelihood of accessing or using each of the six flexible scheduling practices (namely *flex-time, flex-shift, compressed work week, comp time off, gradual return to work*, and *work-at-home*).

Estimates of the access equations are presented in Table 2; the use equations are presented in Table 3. The models are presented as odds ratios. In this form, the coefficients measure the likelihood of a positive outcome for the group of interest relative to the base group. If the likelihoods are equal, if there is no difference between the groups, the odds ratio is 1. If the group of interest is more likely to have a positive outcome than the base group, the odds ratio coefficient will be great than 1; it will be less than 1 if the likelihood is lower for the group of interest relative to the base group. In the case of continuous variables, the odds ratio measures the change in the likelihood resulting from a one unit change in the explanatory variable. Again, values greater than 1 are associated with increased likelihood of a positive outcome; values less than 1 are associated with reduced likelihoods. Consider the coefficient on gender, 1.522, and

presence of children, 0.496, in the gradual return to work equation (page 2 of table 2, 5th data column). These odds ratios indicate that a woman is 52.2 percent more likely to have access to gradual return practices than a man, while employees with children are 50.4 percent less likely to have access [(1-.496)*100] [12]. In the same equation, the coefficient for the individual voice measure, 1.010, indicates that a one unit increase in the perception of individual union schedule support effectiveness would increase the likelihood of having access to a gradual return to work program by 1.0%.

{{Place Tables 2 and 3 about here}}

Results and Discussion

Probability of Flexible Scheduling Access

There is considerable variation in the influence of our voice measures by type of work-life flexibility practice. Individual voice has a large, positive, and significant effect ($p < 0.05$) on the likelihood of access to work-at-home; a qualitatively similar but statistically stronger ($p < 0.01$) effect on access to a compressed work week, and no effect on the remaining four flex-work outcomes (page 1 of table 2, 1st row of data). In both instances where the coefficient is statistically significant, a one standard deviation increase in individuals' perceptions of having a

[12] Answers to questions about supervisor support, individual voice, union schedule support effectiveness, union pay-benefits effectiveness, task interdependency and workload have been rescaled to 0 to 100 to facilitate comparison between the effects of unit changes in these explanatory variables.

say about their jobs and being comfortable with discussing scheduling with their supervisors increases the likelihood of access by 47.5%.

Union Effects: Individual, Group and Contract

The union schedule support effectiveness and union pay-benefits effectiveness are estimated separately for individual and group effects. The individual effect, a within union effect, is measured as the difference between the individual's response and the average response of individuals in their union. The group effect, a between union effect, is the difference between the average of the response for union members relative to the average response across all unions. Our estimates find differences between the individual and group effect as well as large differences in individual and group effects by practice. For example, individuals' perception of union schedule support effectiveness positively affects the likelihood of access to flex-time (Table 2, Column 1, individual union schedule support effectiveness). A one standard deviation increase in perceived individual union schedule support effectiveness raises the likelihood of having access to flex-time by 30.4%.[13] In contrast, group union schedule support effectiveness does not have a statistically significant effect on access to flex-time. This result is understandable given that collective agreements often set flex-time corridors but the actual flex-time schedule can be adjusted and negotiated individually. Thus, it is the influence of individual union schedule support effectiveness that matters rather than a shared group perception of union schedule support effectiveness. A similar pattern is found for access with gradual return to work. There is a marked effect for individual union schedule support effectiveness, but the effect for group

[13] For consistency, we interpret the effects of our scaled variables using one standard deviation from the mean.

schedule support effectiveness is not significant (Table 2, column 5, rows 3 & 5). A one standard deviation increase in an individual's perception of union schedule support effectiveness results in a 25.4% higher likelihood of having access to gradual return to work.

This pattern is reversed for access to a compressed work week. While individual union schedule support does not affect perceived access to a compressed work week, a one standard deviation increase in group union schedule support effectiveness increases access to a compressed work week by 89.5% (Table 2, column 3, rows 3 and 5). This is also an understandable result given that a compressed work week emerges less from individual negotiations and is more often set by departments where a fit exists with the work process.

The effect of individual and group union pay-benefits effectiveness is markedly different from union schedule support effectiveness. Individual union pay-benefits effectiveness never has a statistically significant effect on access to work-life flexibility practices (Table 2, row 2). In contrast, the group union pay-benefits effectiveness variable has a statistically significant negative effect on flex-time and compressed workweek (Table 2, row 4, columns 1 and 3). For flex-time and compressed workweek, a one standard deviation increase in group union pay-benefits effectiveness reduces the likelihood of access to each policy by about 70 percent.

This result demonstrates that when unions are particularly effective in negotiating good wages and benefits and in holding management to the agreement, they have either no effect or are associated with a reduction in the likelihood of employees accessing flex-time and a compressed work week. Thus, our measures of collective voice indicate a dual effect on accessing work-life flexibility practices. Where unions are supportive of worker scheduling needs, the likelihood of access is increased; where unions are perceived as strong and effective on wages and benefits and contract enforcement, the likelihood of access diminishes. For

example, with respect to access to a compressed work week schedule, a one standard deviation increase in group union pay-benefits effectiveness reduces the likelihood of access by 70.5%, while a one standard deviation increase in group union schedule support effectiveness increases the likelihood of access by 69.7%.

The union contract variables demonstrate the importance to members of having flexible schedules codified as enforceable practices. Five of the six flexible work-life practices are incorporated into collective bargaining agreements in at least some of the establishments in our survey. We find that the incorporation of provisions for flex-time, work-at-home and comp time greatly increase individuals' perceived access to such flexible schedules. Individuals belonging to bargaining units in which the contract includes flex-time provisions are seven times as likely to indicate they have access to flex-time as those in units in which flex-time is not incorporated into the agreement. Effects are larger for access to comp time and work-at-home. Those in units in which comp time is in the contract are 30 times as likely to report access, whereas those in units in which work-at-home is in the contract are more than 300 times more likely to report access than those whose contract does not include such language.

Our estimates also provide some evidence that, with regard to certain flexible schedules, contract language substitutes for perceived individual and group union support. In three of the five forms of flexible schedules for which there is contract language, a significant contract language variable is associated with non-significant individual or group union effects (Comp-Time Off and Work-at-Home), or a non-significant contract language coefficient is associated with some significant individual or group union effects (compressed workweek). Thus, compensatory time off and work-at-home seem sufficiently important to employees to negotiate

the practice into the contract, and its presence in the contract may make other forms of union support less important.

A compressed work week is positively associated with group union schedule support effectiveness and group union pay-benefits effectiveness, rather than with formal contract language. This finding reinforces the importance of distinguishing between the impact of contract language and unions with strong support effectiveness with access to compressed work weeks. It also shows that union behavior can affect access to a flexible schedule beyond what is simply negotiated in the collective agreement.

Furthermore, our results for flex-time indicate that contract language does not substitute for union behaviors, these behaviors continue to influence employee access to flex-time even when contract language exists. We saw this particularly exemplified by one union in our sample. This union had negotiated problem solving teams designed to work jointly with management at the department level to craft flexible scheduling solutions that could meet employer and employee needs. In addition, this union routinely counseled individuals upon request on how to negotiate a flexible schedule with their supervisor. In most other cases, this support was informal between a particular union representative and an individual or work group.

Workplace Characteristics

With regard to workplace characteristics, and consistent with most past research, supervisory support is an important determinant of employees' access to work-life flexibility practices. It has a positive and highly statistically significant effect on four of the six practices; the exceptions are compressed work week and work-at-home. Among the significant effects, the increase resulting from a one standard deviation increase in supervisory support varies from an 81.5% (flex access) to a 29.6% (gradual return) likelihood of access.

Task interdependency is associated with a lower likelihood of access to various flexible scheduling practices. Positions that are more interdependent with others are less likely to have access to flex-time, a compressed work week, and gradual return to work. Workload does not seem to be significantly associated with access to flexible schedules, except in the case of compensatory time off and flex-shifts. For these outcomes, the likelihood of access to compensatory time off and flex-shifts is higher in departments with high and demanding workloads. Swapping shifts or trading hours worked for time off seems to be the preferred flexibility option in high workload departments.

Individual Characteristics and Occupation

As developed in the discussion of the analytic model, individuals' perceptions of access may be influenced by their interest in different forms of flexible benefits and this, in turn, may be influenced by individual characteristics. It might be supposed that being married would make an employee particularly interested in flex-time and flex-shifts, and this interest may cause them to be more aware of their access to such policies than the unencumbered, unattached individual. Our estimates provide little evidence of this as individual characteristics seldom have a statistically significant effect on perceived access to flexibility practices. Of the six measures of flexible scheduling, individual characteristics are only statistically significant in the gradual return to work model, and only gender and the presence of children influence this outcome. In contrast, an individual's occupation has a marked effect on access to flexibility practices. Managers are considerably less likely to have access to flexible shifts, compensatory time off, and gradual return to work in comparison to administrative support workers. Blue collar workers are less likely to have access to flexible time policies and gradual return to work, and service workers are less likely to have access to flex-time than administrative support personnel. In

contrast to these other groups, professionals' access to flexible time policies is no different than administrative support workers. This may reflect similar work environments and the close association between professionals and administrative support workers.

In summary, our estimates validate the role of unions in employee access to flexible scheduling. This influence is exercised both through the incorporation of such practices into the contract and supportive behaviors outside of the formal bargaining process. Further, this influence is found even after extensive control for supervisory practices and workplace characteristics. Not surprisingly, the largest union effects are found when practices are incorporated into the collective bargaining agreements. However, this finding does not negate the importance of union behaviors on access to flexible schedules.

Probability of Flexible Scheduling Use

With respect to the use of work-life flexibility practices, the effects of the voice measures remain substantial for some practices but are more muted than in the access equations. Individual union schedule support effectiveness does not affect any work-life flexibility practices. Individual union pay-benefits effectiveness only affects compensatory time off; a one standard deviation in this effectiveness measure increases the likelihood of using compensatory time off by 34.4% and is significant in a 5% test. Group union measures play a more important role in the use equations. Group union schedule support effectiveness has a statistically significant positive effect on the use of flex-time; a one standard deviation increase is associated with a 35.8% higher likelihood of using flex-time. Group union pay-benefits effectiveness has a large and strongly significant effect ($p < 0.01$) on use of a compressed work week; a one standard deviation increase in group union pay-benefits effectiveness is associated with a 118% increase in the use of compressed work weeks. The results with these collective union measures suggest

that union schedule support and pay-benefits effectiveness are important determinants of the use of some flexible schedules and that their effects can be large.

We also find that the inclusion of flexible scheduling language in the collective agreements has positive and notably significant effects on the use of flex-time and flex-shift. The presence of language on flex-time increases the likelihood of use by 65.6% and language on flex-shift increases the likelihood of use by 138.7%. The significance of the contract language measures for use of flex-time and flex-shift suggests that, in some instances, the explicit "rights" afforded by contract language and due process afforded by the collective agreement are important supports for the use of flexible scheduling practices.

Workplace Characteristics

The characteristics of the workplace also impact the opportunities workers have to use flexible scheduling practices, but their influence is less marked than in the access equations. For example, supervisor support has a statistically significant effect in the access equation for four of the six work-life flexibility measures, but it is not statistically significant in any of the use equations. Similarly, while task interdependency affects three access variables and work load affects two access variables, each affects only one of the six use variables. For example, the probability of comp time use is positively associated with high workloads, and the likelihood of using a compressed work week is positively associated with departments characterized by task interdependency and work in the public sector. This suggests that when workloads are high, employers are more willing to allow employees to use comp time as a flexibility measure. Likewise, employers are more willing to allow employees to use compressed work weeks as a flexibility measure when jobs are highly interdependent.

Individual Characteristics and Occupation

Individual characteristics play a more important role in the use of work-life flexibility practices than in determining access. Women are 65% more likely to use compensatory time and 123% more likely to use gradual return to work. Having at least one child under 18 increases the likelihood of using gradual return by 317%, while each additional child increase the likelihood of using flex-time by 44%. In addition, providing elder care increases the likelihood of using flex-time but substantially reduces the likelihood of working at home. These results indicate that the use of work-life flexibility practices is significantly influenced by personal needs and demands. Thus, even where flexible practices are accessible to workers, the actual extent of use is determined by a variety of factors including the workers' personal needs, the demands of the job, as well as contract language and union behaviors.

Error Components

There are error components at the level of the department, union and organization in the models of access to flexible schedules, but little evidence for such effects in the use models. Inclusion of the error components has a marked impact on the statistical significance of some access variables. The statistical significance of the individual union schedule support effectiveness, union pay-benefits effectiveness, and supervisor support variables is consistently lower in models with error components than those without, even when the group union pay-benefits effectiveness and union schedule support effectiveness variables are omitted.[14] The statistical significance of these error components indicates that access to work-life flexibility practices is a multi-level phenomenon and variance at the department, union, or organizational

[14] Estimates of models without error components are available from the authors.

level is not captured fully by the explanatory variables. In contrast, the evidence of error components in the use equations (Table 3) is weaker than in the access equations. Statistically significant error components are only found in the work-at-home equation and only the department error component is of substantial size. While access to a flexible schedule is a multi-level phenomena, this is markedly less a characteristic of use of a flexible schedule.

Conclusion

This study is unique in analyzing the influence of collective and individual voice on the access to and use of flexible schedules by unionized workers. In particular, we unpack the idea of collective voice by examining union pay-benefits effectiveness and union schedule support effectiveness at both the individual and union levels. We find that unions matter for access to and use of work-life flexibility practices. Our analyses indicate that union schedule support effectiveness increases the likelihood of access to flex-time and gradual return to work, and group union schedule support effectiveness increases the likelihood of access to a compressed work week. This association holds even after controlling for supervisor support. In addition, group union pay-benefits effectiveness negatively impacts access to flex-time and a compressed work week. This result suggests that simply having a more powerful union to negotiate higher wages and benefits and enforce the collective agreement does not translate into greater access to flexible schedules. In fact, we find it can actually work against access to flexible schedules. Perhaps unions that are more powerful negotiate fewer flexible schedules and do not put in place procedures to facilitate access. Or it may be that unions that emphasize more traditional bargaining areas such as wages and benefits deemphasize newer bargaining areas, such as flexible scheduling, which often appeal to women and workers with care-giving needs.

The magnitude of the effect of incorporating language about such practices into the collective agreement further demonstrates the importance of unions to work-life flexibility practices. The incorporation of these practices into the collective agreement likely reflects their perceived value to employees, makes the right to such practices more concrete, and provides due process in the access to and use of such policies. We find that contract language increases access to flex-time, compensatory time off, and work-at-home as well as the use of flex-time and flex-shifts. However, we also find that the presence of contract language does not eliminate the other effects of union behavior. Union pay-benefits effectiveness and schedule support effectiveness variables have a statistically significant effect on the reporting of access and use in some of the equations in which contract language also has a statistically significant effect.

Whereas supervisor support significantly increases the likelihood of access to flexible schedules, it has no significant impact on the use of flexible schedules. This is a very critical finding that challenges current work-life literature on supervisor support. Much of the work-life literature, which is conducted on primarily nonunion workers, maintains the supervisor is the main determinant of work life flexibility use. Yet our study shows that among organizations with union representation, group union schedule support effectiveness as well as individual and group union pay-benefits effectiveness influence the use of flexible schedules. Highly supportive unions increase the likelihood of using flex-time. In addition, positive individual perceptions of union pay-benefits effectiveness encourage the use of compensatory time off, and group union pay-benefit effectiveness encourages the use of compressed work weeks. Interestingly, it seems that membership in a powerful union can cut both ways. For example, group union pay-benefits effectiveness reduces the likelihood of accessing a compressed work week, but if one has access

to that scheduling option, representation by a powerful and effective union is associated with the likelihood of greater use.

These results suggest that it is critical that future studies carefully measure access and use separately. In addition, studies should not measure global flexibility policy access but break out measurement of access to different types of flexibility practices. Workers' lives have become so varied now that access to different types of flexibility is needed for different types of workers. The non-work demands of a working parent with a preschool child may differ from an older worker who needs to manage elder care or the demands of college age children.

Furthermore, our findings indicate that the impact of workplace characteristics differs across flexible schedules. The likelihood of accessing and using compensatory time is positively associated with working in a department with a high or demanding workload. Trading extra-hours for time off seems particularly suited to this work environment. In addition, some workplace characteristics can have different effects on access and use. For example, highly interdependent jobs are negatively associated with access to two flexible schedules but positively associated with the use of compressed work weeks. We encourage future research to examine the effect of different workplace characteristics separately for access to and use of various flexible schedules.

Implications for Practice and Research and Limitations

Our findings have implications for unions as they consider strategies to engage on work-life issues both in and beyond contract negotiations. Our results show that access to work-life flexibility is higher when unions actively engage in schedule supportive behaviors. These can include practices such as problem-solving groups, which serve as consulting teams to find joint

solutions to department specific flexibility needs, or steward training and guidelines on how to counsel individual workers about negotiating flexible schedules with their supervisors. In addition, our results also demonstrate the importance of incorporating work-life procedures into the collective agreement.

On the employer side, our study shows that unionized employers seeking to increase effectiveness of work life policies, in particular, should partner with their unions as they can be very effective in helping with access to work-life flexibility policies. The relationship employers have with their union can impact both employee access to and use of flexible schedules. Also, this study shows employers that granting access to flexible schedules is not the same as employee use of such practices. Worker need, job characteristics, and the approach of the union are critical antecedents of use.

With regard to research, more is needed that integrates a collective voice perspective into work-life flexibility research. We encourage researchers to replicate this study in a sample of union and nonunion workers to determine differences across these groups. In addition, we encourage researchers to examine whether our findings are robust across other unions and industries. Our finding regarding union schedule support effectiveness warrants more investigation as well, particularly regarding the influence of various forms of support (union, supervisor, co-worker) on access to and use of flexible scheduling across union and non-union settings. Within the unionized sector, more research is needed about the bargaining process around work-life flexibility and conditions under which unions will negotiate clear contractual rights to flexibility as opposed to more informal language leaving flexibility up to management discretion. Additional research is needed to analyze the linkages between the gender and age composition of union membership or leadership and extent of union support for work life

flexibility. There is also a need for the development of national databases in the U.S. on the access to specific forms of flexible work practices in union and nonunion settings, as Kossek and Distelberg (2009) and others have suggested. These data would prove useful for research and are absolutely critical to informing future work-life flexibility public policy.

With regard to limitations, the extent to which our findings can be generalized is limited by the nature of our sample. Given our need to gain approval from both labor and management, our findings apply to workplaces with relatively constructive labor-management relations. In addition, our survey design sacrificed broad representativeness of the union sector for more detailed information on individuals, unions, and department at individual workplaces. While we are unable to claim these findings apply to the whole unionized sector in the United States, we nevertheless believe that the survey results are applicable to a large proportion of the union sector. The public sector (half of current union membership), manufacturing, and higher education are represented in our sample. Further, based on our qualitative work at these locations, and other work we have done at other locations, we believe that our findings would broadly generalize to other unionized industries.

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Table 1. Descriptive Statistics for Independent and Dependent Variables

Variable	*n*	*Mean*	*Std. Dev.*	*Min.*	*Max.*
Dependent Variables					
Flex Time Access	886	0.57	0.50	0	1
Flex Shift Access	797	0.54	0.50	0	1
Compressed Work Week Access	874	0.36	0.48	0	1
Comp Time Off Access	856	0.56	0.50	0	1
Gradual Return to Work Access	824	0.75	0.44	0	1
Work-at-Home Access	850	0.19	0.39	0	1
Flex Time Use	503	0.54	0.50	0	1
Flex Shift Use	452	0.37	0.48	0	1
Compressed Work Week Use	311	0.32	0.47	0	1
Comp Time Off Use	480	0.40	0.49	0	1
Gradual Return to Work Use	613	0.23	0.42	0	1
Work-at-Home Use	162	0.38	0.49	0	1
Voice					
Individual Voice	861	73.08	22.61	0	100
Individual Union Pay-Benefit Effectiveness	846	72.05	21.49	0	100
Individual Union Schedule Support Effectiveness	835	60.55	25.35	0	100
Group Union Pay-Benefits Effectiveness (average by union)	897	72.12	7.66	53.4	83.3
Group Union Schedule Support Effectiveness (average by union)	897	60.76	7.46	44.6	80.0
Union Contract					
Flex Time in Contract	897	0.35	0.48	0	1
Flex Shift in Contract	897	0.26	0.44	0	1
Compressed Workweek in Contract	897	0.40	0.49	0	1
Comp Time Off in Contract	897	0.53	0.50	0	1
Work-at-Home in Contract	897	0.22	0.42	0	1
Workplace Characteristics					
Supervisor Support	817	81.51	24.69	0	100
Task Interdependency	888	74.11	16.98	0	100
Workload	815	72.80	24.07	0	100
Work Hours	896	41.02	6.64	15	60
Organizational Characteristics					
Public Sector	897	0.71	0.45	0	1
Opt-in	897	0.11	0.32	0	1
Individual Characteristics					
Gender (women)	897	0.55	0.50	0	1
Children	897	0.42	0.49	0	1
Number of Children under 18	895	0.78	1.10	0	6
Provide Elder Care	895	0.19	0.39	0	1
Marital Status (married)	897	0.64	0.48	0	1

Notes: The data set contains responses from 897 unionized employees in the public and private sector. Group Union Pay-Benefits Effectiveness and Group Union Schedule Support Effectiveness are means of the Union Pay-Benefits Effectiveness and Union Schedule Support Effectiveness variables respectively. Union Contract are binary variables derived from the presence of actual contract language on flex practices.

Table 2. Access to Flexible Schedules

Variables (Coefficients Reported as Odds Ratios)	*Flex Time Access*	*Flex Shift Access*	*Compressed Work Week Access*	*Comp Time Off Access*	*Gradual Return to Work Access*	*Work-at-Home Access*
Voice Measures						
Individual Voice	1.004	1.007	1.021***	1.003	1.006	1.021**
	(0.546)	(1.009)	(2.667)	(0.341)	(1.001)	(1.688)
Individual Union Pay-Benefits Effectiveness	0.996	1.005	0.995	0.992	0.995	0.998
	(-0.520)	(0.713)	(-0.633)	(-0.943)	(-0.695)	(-0.133)
Individual Union Schedule Support Effectiveness	1.012**	1.002	0.992	1.005	1.010**	1.011
	(2.086)	(0.406)	(-1.315)	(0.781)	(1.753)	(1.038)
Group Union Pay-Benefits Effectiveness	0.908**	0.950	0.909**	0.984	0.967	1.004
	(-1.990)	(-0.988)	(-1.737)	(-0.484)	(-0.985)	(0.047)
Group Union Schedule Support Effectiveness	1.066	1.049	1.120**	1.004	1.013	0.946
	(1.255)	(0.925)	(1.938)	(0.117)	(0.317)	(-0.703)
Union Contract						
Flex Time Contract	7.131***					
	(2.515)					
Flex Shift Contract		3.579				
		(1.559)				
Compressed Work Week Contract			1.424			
			(0.449)			
Comp Time Off Contract				31.075***		
				(7.507)		
Work-at-Home Contract						336.117**
						(2.131)
Workplace Characteristics						
Supervisor Support	1.033***	1.029***	1.013	1.025***	1.012**	1.009
	(4.637)	(3.727)	(1.642)	(3.325)	(1.906)	(0.660)
Work Hours	0.966	0.986	0.984	1.010	0.980	0.966
	(-1.558)	(-0.666)	(-0.726)	(0.374)	(-0.961)	(-1.153)
Task Interdependency	0.986**	0.992	0.983**	1.000	0.985**	0.999
	(-1.791)	(-1.004)	(-2.088)	(-0.050)	(-2.017)	(-0.073)
Workload	1.001	1.013**	0.995	1.031*	0.999	1.013
	(0.137)	(1.648)	(-0.573)	(4.177)	(-0.143)	(1.242)
Organizational Characteristics:						
Public Sector	0.554	1.360	0.339	1.214	0.539	4.565
	(-0.487)	(0.268)	(-0.877)	(0.372)	(-0.820)	(0.606)
Opt-in	0.765	301.7***	0.191	0.629	0.174**	1.683
	(-0.175)	(3.398)	(-1.184)	(-0.549)	(-1.855)	(0.167)

Notes: *** p<0.01, ** p<0.05; t-statistic in parentheses ( )

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Table 2. Access to Flexible Schedules Continued

Variables (Coefficients Reported as Odds Ratios)	*Flex Time Access*	*Flex Shift Access*	*Compressed Work Week Access*	*Comp Time Off Access*	*Gradual Return to Work Access*	*Work-at-Home Access*
Individual Characteristics						
Gender (women)	0.946	1.421	1.331	1.341	1.522**	0.726
	(-0.201)	(1.333)	(1.016)	(0.983)	(1.666)	(-0.737)
Children	1.813	1.084	1.021	0.652	0.496**	0.744
	(1.392)	(0.186)	(0.046)	(-0.844)	(-1.767)	(-0.368)
Number of Children under 18	0.861	0.964	0.978	1.170	1.172	1.014
	(-0.810)	(-0.186)	(-0.110)	(0.667)	(0.927)	(0.037)
Elder Care	1.076	1.012	0.953	0.766	0.849	1.105
	(0.254)	(0.042)	(-0.154)	(-0.843)	(-0.598)	(0.209)
Marital Status (married)	0.790	0.762	0.891	0.768	1.188	0.657
	(-0.962)	(-1.130)	(-0.454)	(-0.939)	(0.715)	(-1.068)
Occupation						
Managers	0.725	0.348**	0.457	0.338**	0.407**	0.718
	(-0.686)	(-2.234)	(-1.335)	(-2.213)	(-2.158)	(-0.367)
Professionals	1.691	0.990	1.121	0.711	0.842	2.082
	(1.427)	(-0.030)	(0.311)	(-0.884)	(-0.495)	(1.417)
Police	0.364	0.198***	0.118***			
	(-1.563)	(-2.384)	(-2.761)			
Blue Collar	0.294***	1.042	0.859	0.480	0.348***	0.354
	(-2.321)	(0.088)	(-0.298)	(-1.483)	(-2.840)	(-1.264)
Service Worker	0.103***	0.397	0.967	0.813	0.671	0.000
	(-3.087)	(-1.504)	(-0.048)	(-0.322)	(-0.750)	(-0.035)
constant	18.117	0.044	1.673	0.011**	74.298**	0.061
	(0.930)	(-1.197)	(0.182)	(-1.940)	(1.665)	(-0.707)
Error Components						
Organization	1.148	1.132	0.987	0.000	0.596	2.470***
	(0.386)	(0.309)	(-0.035)	(-0.001)	(-1.098)	(2.382)
Union	0.494	0.000	0.000	0.000	0.370	0.000
	(-0.828)	(-0.000)	(-0.000)	(-0.000)	(-1.486)	(-0.000)
Department	0.755	1.023	1.227	0.794		1.129
	(-1.013)	(0.115)	(1.109)	(-0.827)		(0.373)
Number of observations	667	600	661	643	632	645
Log-Likelihood	-301.88	-316.00	-296.27	-231.94	-278.16	-145.20
Pseudo-r^2	34.8%	33.6%	30.6%	38.5%	29.9%	35.1%
p	0.000	0.000	0.001	0.000	0.000	0.133

Notes: *** p<0.01, ** p<0.05; t-statistic in parentheses ( ).
Note on Odds Ratio Estimates: When odds ratios are equal to 1, the variable of interest does not affect the likelihood of a positive outcome. When odds ratios are greater than 1, a one unit increase in the variable of interest increases the likelihood of a positive outcome. Similarly, odds ratios between 0 and 1 indicate an outcome is less likely.

Table 3. Use of Flexible Schedules

Variables (Coefficient Estimates Reported as Odds Ratios)	*Flex Time Use*	*Flex Shift Use*	*Compressed Work Week Use*	*Comp Time Off Use*	*Gradual Return to Work Use*	*Work-at-Home Use*
Voice Measures						
Individual Voice	1.010	1.002	0.989	1.008	1.010	1.012
	(1.349)	(0.298)	(-0.923)	(1.040)	(1.315)	(0.720)
Individual Union Pay-Benefits Effectiveness	0.998	0.995	0.984	1.016**	1.000	0.985
	(-0.328)	(-0.589)	(-1.365)	(1.953)	(0.002)	(-0.734)
Individual Union Schedule Support Effectiveness	0.990	1.009	1.009	0.995	1.002	0.977
	(-1.545)	(1.298)	(0.980)	(-0.737)	(0.247)	(-1.329)
Group Union Pay-Benefits Effectiveness	0.978	1.010	1.154***	0.971	0.963	0.829
	(-0.814)	(0.298)	(2.606)	(-1.218)	(-1.516)	(-1.508)
Group Union Schedule Support Effectiveness	1.048**	0.978	0.942	0.999	1.017	1.114
	(1.988)	(-0.597)	(-1.174)	(-0.043)	(0.722)	(1.049)
Union Contract						
Flex Time Contract	1.656**					
	(1.780)					
Flex Shift Contract		2.387**				
		(1.864)				
Compressed Work Week Contract			1.118			
			(0.152)			
Comp Time Off Contract				1.209		
				(0.482)		
Work-at-Home Contract						2.226
						(0.566)
Workplace Characteristics						.
Supervisor Support	0.998	1.000	0.992	1.006	0.993	0.996
	(-0.298)	(0.023)	(-0.598)	(0.706)	(-0.945)	(-0.248)
Work Hours	1.033	1.001	0.992	1.006	0.988	0.993
	(1.622)	(0.051)	(-0.314)	(0.296)	(-0.590)	(-0.102)
Task Interdependency	0.993	1.006	1.020**	0.994	1.010	1.001
	(-0.910)	(0.629)	(1.773)	(-0.746)	(1.256)	(0.062)
Workload	1.000	0.990	1.006	1.015***	1.006	0.994
	(0.017)	(-1.629)	(0.760)	(2.338)	(1.046)	(-0.315)
Organizational Characteristics						
Public Sector	1.532	1.493	4.379**	1.415	1.569	1.839
	(1.154)	(0.775)	(1.653)	(0.862)	(1.155)	(0.380)
Opt-in	3.399	1.276	4.510		1.186	0.000
	(1.419)	(0.306)	(1.262)		(0.184)	(-0.011)

Notes: *** p<0.01, ** p<0.05; t-statistics in parentheses ( )

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Table 3. Use of Flexible Schedules (Continued)

Variables (Coefficients Reported As Odds Ratios)	*Flex Time Use*	*Flex Shift Use*	*Compressed Work Week Use*	*Comp Time Off Use*	*Gradual Return to Work Use*	*Work-at-Home Use*
Individual Characteristics						
Gender (women)	1.422	1.115	0.836	1.646**	2.229***	2.283
	(1.435)	(0.384)	(-0.465)	(1.852)	(2.873)	(1.353)
Children	0.782	1.409	2.288	1.513	4.171***	2.220
	(-0.553)	(0.726)	(1.263)	(0.967)	(3.370)	(1.241)
Number of Children under 18	1.441**	0.948	0.740	1.064	0.747	
	(1.709)	(-0.254)	(-0.946)	(0.307)	(-1.428)	
Elder Care	1.950***	0.755	1.088	1.420	1.193	0.327**
	(2.329)	(-0.851)	(0.197)	(1.153)	(0.617)	(-1.674)
Marital Status (married)	1.090	1.109	1.316	1.038	1.018	2.094
	(0.358)	(0.392)	(0.777)	(0.155)	(0.070)	(1.203)
Occupation						
Managers	0.734	0.390	0.209	0.469	0.527	1.002
	(-0.689)	(-1.449)	(-1.333)	(-1.543)	(-1.363)	(0.002)
Professionals	0.798	0.876	1.861	0.681	0.524**	0.651
	(-0.754)	(-0.369)	(1.428)	(-1.322)	(-1.941)	(-0.645)
Police	0.479	0.579	3.890	1.091	0.850	
	(-1.187)	(-0.807)	(1.030)	(0.188)	(-0.241)	
Blue Collar	0.488**	0.665	1.884	0.447	0.739	12.048
	(-1.679)	(-1.007)	(1.077)	(-1.291)	(-0.688)	(1.322)
Service Worker	0.907	0.852	0.095**	0.490	0.949	
	(-0.159)	(-0.306)	(-1.993)	(-0.905)	(-0.119)	
constant	0.081	0.613	0.000***	0.149	0.239	440.785
	(-1.381)	(-0.216)	(-2.698)	(-1.097)	(-0.818)	(0.927)
Error Components						
Organization						0.000
						(-0.000)
Union						0.000
						(-0.000)
Department						0.927
						(-0.116)
Number of observations	394	316	236	363	472	122
Log-Likelihood	-251.43	-200.67	-121.79	-229.22	-238.43	-56.13
Pseudo-r^2	27.5%	29.2	30.5%	28.9%	27.9%	42.7%
p	0.015	0.631	0.001	0.038	0.001	0.327

Notes: *** p<0.01, ** p<0.05; t-ratio in parentheses ( ).

Note on Odds Ratio Estimates: When odds ratios are equal to 1, the variable of interest does not affect the likelihood of a positive outcome. When odds ratios are greater than 1, a one unit increase in the variable of interest increases the likelihood of a positive outcome. Similarly, odds ratios between 0 and 1 indicate an outcome is less likely.