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Differences Among Nonstandard Workers and Perceived Job Security and Work Attitudes of Standard Employees

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Abstract

Over the last three decades many organizations have adopted personnel strategies involving increased reliance on nonstandard workers—part-timers, independent contractors, employment agency hires, and temporary or contingent workers. While the use of nonstandard workers can provide firms with increased flexibility, some studies have suggested that it may have negative effects on the work attitudes of standard employees. Most extant research on this issue, however, has been based on very small samples of firms and has not systematically explored the impact of the use of different types of nonstandard workers on the work attitudes and job security perceptions of regular employees. In this study we use data from the 2004 British Workplace and Employment Relations Survey, gathered from a matched sample of employees and employers across a wide range of industries, occupations, and work settings, to investigate this problem. We argue that the effects of the increasing use of nonstandard

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workers on standard workers' attitudes are likely to be mediated by their influence on workers' perceived job security. In line with this, our results indicate that while organizations' use of temporary workers adversely affects standard workers' loyalty, job satisfaction, and perceptions of manager-employee relations because of threats to their perceived job security, the use of part-time workers has no such effect. A policy implication is that organizations should exercise caution in integrating different types of temporary workers into their employment systems.

Within the last thirty years, the use of nonstandard employees has become an integral feature of many firms' personnel strategies (Pfeffer and Baron 1988; Davis-Blake and Uzzi 1993; Uzzi and Barsness 1998; Barker and Christensen 1998). The term "nonstandard employees" refers to those who do not work on a fixed, full-time schedule under an employer's direct supervision on a presumptively indefinite basis (Kalleberg, Reskin, and Hudson 2000); thus, it includes part-time workers, independent contractors, employment agency hires, and temporary or contingent workers. The use of such arrangements is commonly advocated as a way of providing organizations with greater staffing flexibility, thus allowing them to respond more effectively to price competition in product markets, rapid changes in technology, restructuring in capital markets, and growing fluctuations in labor demand (see Lepak and Snell 1999; Matusik and Hill 1998).

However, a number of recent studies indicate that the use of nonstandard workers may result in unanticipated costs for firms, including the reduction of standard employees' loyalty, intentions to stay with organizations, and work-related helping behavior (see, for example, Davis-Blake, Broschak, and George 2003; Broschak and Davis-Blake 2006). Different explanations have been offered for such effects, including the creation of in-group/out-group relations and a concomitant hostile social environment. Evidence from case studies, however, suggests a more material explanation, involving a marked decrease in regular employees' perceived job security (Geary 1992) that accompanies the growing use of nonstandard work arrangements. Because the latter studies have generally been based on information from one or only a small number of organizations, whether job security perceptions of the standard workforce typically co-vary with the blending of standard and nonstandard workers in the workplace has not been examined systematically across a variety of workplaces.

This paper uses data from the 2004 British Workplace and Employment Relations survey, a large-scale, national survey of small, medium-sized, and large firms, to examine this issue. We compare the effects of firms' increasing

use of part-time and temporary workers on a variety of work attitudes (loyalty, job satisfaction, and manager-employee relations), as well as on perceptions of job security held by standard employees. In the following section, we consider theoretical explanations of the impact of nonstandard workers on standard workers' attitudes, and in this context we offer a number of related hypotheses. The next section describes the data, measures, and analysis procedures used to examine the hypotheses, and the third section presents our findings. In concluding, we consider some of the key policy implications of the analysis.

Theory and Hypotheses

We use the phrase "heterogeneity in employment arrangements" throughout to refer to the degree to which nonstandard workers are represented in a work setting. Greater use of nonstandard employment arrangements has been shown to be negatively related to a variety of work attitudes of standard workers, including assessment of supervisor/subordinate relations, willingness to engage in helping behaviors, and intentions to stay with an employer (Davis-Blake, Broschak, and George 2003; Broschak and Davis-Blake 2006). Drawing on social identity theory (Tajfel and Turner 1986; Turner 1987), one explanation advanced for such results is that differences in work arrangements produce the same kind of in-group/out-group attitudes and behaviors as are commonly associated with the social divisions of race and sex (see, for example, Chattopadhyay and George 2001; George 2003). Differences in work schedules are generally readily observable, making it easy for standard employees to distinguish themselves from part-time workers. Temporary workers are also often intentionally distinguished from standard employees by a variety of devices used by employers—distinctive name tags, different colored uniforms, and so forth—to avoid potential lawsuits for violation of labor laws (Kalleberg, Reskin, and Hudson 2000; Smith 1994, 2001). A large amount of literature has documented the negative effect that such within-group divisions can have on individuals' work attitudes and behaviors (for example, Wharton and Baron 1987; O'Reilly, Caldwell, and Barnett 1989; Tsui, Egan, and O'Reilly 1992; Tolbert, Simons, Andrews, and Rhee 1995; Reskin 2003). Thus, we hypothesize that (H1) increases in the degree of heterogeneity in employment arrangements will have a negative impact on job attitudes of standard employees.

It may be, however, that the underlying mechanism that links heterogeneity to work attitudes is not negative affect generated by in-group/out-group dynamics; rather perhaps the mechanism is more materially based, reflecting concerns about job security. Research by social psychologists on workplace relations has shown that employees' perceptions of their job security often act as a mediating variable in shaping various employee attitudes and behaviors, including organizational commitment, job satisfaction, trust in management, turnover intentions, and job performance (for example, Greenhalgh and Rosenblatt

1984; Ashford, Lee, and Bobko 1989; Brockner 1988; Brockner et al. 2004). This research suggests a modification of the first hypothesis, as follows: (H2) The negative effects on job attitudes of standard employees associated with increases in the degree of heterogeneity in employment arrangements will be mediated by perceptions of job security.

In addition, there are a number of reasons to suspect that variations in forms of heterogeneity may differentially affect job security concerns. We contend that heterogeneity associated with part-time workers is likely to have less of an impact on the perceived job security of standard workers than heterogeneity associated with temporary workers. Our general assumption is that whether or not permanent employees view nonstandard workers as a threat to their job security depends on the extent to which the former see the latter as competitors. This, in turn, is likely to be contingent on the degree to which firms utilize nonstandard workers to substitute for regular, full-time employees. Below we note some distinctive patterns in firms' usage of part-time and temporary workers.

In general firms use part-time workers to take advantage of greater scheduling flexibility and to allow work sharing among employees. Alternatively, creation of part-time jobs may be driven by demands from employees, who seek reduced hours in order to deal with family demands or to undertake alternative educational or work pursuits (Tilly 1992, 1996). In either case, it is relatively rare for employers to substitute part-time jobs for full-time jobs (Broschak and Davis-Blake 2006; Smith 1994; Tilly 1992). Although the proportion of part-timers in the workforce has been growing, Nardone (1995) notes that this trend is accounted for primarily by the expansion of certain industries (for example, services, retail trade, finance, insurance, real estate) that typically employ large numbers of part-timers rather than by an increase in the proportion of part-timers within given industries.

There are a number of reasons why part-time workers are not typically substituted for full-time workers. First, job demands may make complex and highly responsible tasks unsuitable for part-timers, who are limited to a maximum number of hours per day and per week and are usually prevented from working overtime (Broschak and Davis-Blake 2006). Tilly (1992) reported that in retail stores the more skilled tasks (for example, meat-cutting jobs) were filled by standard employees, while low-skill tasks (such as cashiers and baggers) were handled by part-timers. Furthermore, even within low-level job categories, part-timers were more likely to be assigned to less responsible tasks (for example, stocking the display cases) compared to regular employees (who are more likely to be responsible for , ordering, taking inventory, or doing paperwork). Consistent with this finding, Smith (1994) reported that, in blended workforces, managers required regular employees to take on the most complex and responsible tasks. Thus, part-time work is apt to be confined to jobs that are

more routinized and those with low interdependence. This is likely to reduce the degree to which standard employees perceive such workers to pose a threat in terms of displacement. Thus, we hypothesize the following: (H3) The degree of heterogeneity in employment arrangements associated with increasing use of part-time workers will have no effect on the job security perceptions of standard employees. Insofar as the real driver of the relationship between increasing workforce heterogeneity and employee attitudes is job security, this suggests the corollary hypothesis: (H3a) The degree of heterogeneity in employment arrangements associated with increasing use of part-time workers has no effect on the work attitudes of standard employees.

On the other hand, temporary workers, whether hired directly by an organization or indirectly through contracts with an employment agency, are much more likely to serve as direct substitutes for regular, full-time workers. As Kalleberg (2000, 347) notes, temporary employees serve as a “reserve labor army” that can be used to avoid “overstaffing” with more expensive, permanent workers. While some of the literature has suggested that temporary workers are used to provide a buffer, reducing the risks of layoffs among “core” employees (Hunter, McGregor, MacInnes, and Sproull 1993; Hakim 1990), there is little evidence to support this view. Instead, recent empirical evidence (for example, Cappelli and Neumark 2004) suggests that firms’ use of nonstandard workers and layoffs of the standard workforce may go hand in hand.

Other studies also provide reasons to suspect that the use of temporary workers may raise concerns among standard workers about their job security. Abraham (1988) found that firms sometimes use temporary workers as a substitute for hiring new standard workers, particularly for low-level positions. Houseman (2001) reported that many employers used agency temporaries to screen workers for regular positions. Smith (1997) noted that managers sometimes use temporary workers to signal to standard employees the tenuousness of their own positions. Drawing on these arguments, we offer the following hypothesis: (H4) The degree of heterogeneity in employment arrangements associated with increasing use of temporary workers has a negative effect on the job security perceptions of standard employees. In line with this, we propose (H4a): The degree of heterogeneity in employment arrangements associated with increasing use of temporary workers on the work attitudes of standard employees will be mediated by perceptions of job security.

Methods

Data

To examine these hypotheses, we used data from the 2004 British Workplace Employment Relations Survey (WERS 2004). The survey is a stratified random sample of workplaces drawn from the Inter-Departmental Business

Register maintained by the United Kingdom's Office for National Statistics. Information on the workplace as a whole was collected through face-to-face onsite interviews conducted with personnel managers and employee representatives. A random selection of up to twenty-five employees from each workplace was then drawn. With appropriate sample weighting, establishments covered in the survey are nationally representative of British workplaces with five or more employees, including public-sector workplaces, nonprofit organizations, and quasi-governmental agencies. Around 2,300 workplaces participated in the survey, yielding an organizational response rate of 64 percent, and a total of over 22,000 employees completed and returned short, self-reported questionnaires, an individual response rate of 61 percent. Further details of WERS 2004 can be found in Kersley et al. (2006). For the purposes of the paper, we have excluded the responses of part-time workers, who work less than thirty hours a week, and direct hire temporary workers (approximately 27 percent of the initial sample).

Measures

Dependent Variables The survey contained a number of measures of work attitudes, including employee loyalty, job satisfaction, and perceptions of manager-employee relations. We assessed loyalty using the sum of three items that measured the extent to which the employee shared many of the values of the employing organization, felt loyal to this organization, and was proud about working for the organization ($\alpha = 0.71$). We assessed job satisfaction using the sum of seven items tapping employee satisfaction with pay, training, job security, achievement from work, scope for using initiative, influence, and the work itself ($\alpha = 0.67$). We assessed perceived manager-employee relations using the following question, which was answered using a five-point scale: "In general, how would you describe relations between managers and employees here?" In addition to these attitudes toward work, respondents were asked about their job security perceptions using the following statement: "I feel my job is secure in this workplace."

Independent Variables Our primary independent variable is heterogeneity in employment arrangements. We constructed three separate indices of heterogeneity for each establishment. To test hypotheses 1 and 2, we created a composite heterogeneity index, reflecting the odds that two people selected at random from a workplace come from two different work groups—the standard workforce and the nonstandard workforce. The heterogeneity index is commonly used in studies of organizational demographic composition. To test hypotheses 3 and 4, we calculated two separate indices of heterogeneity for each establishment: part-timer heterogeneity and temporary worker heterogeneity.

Control Variables In addition to the heterogeneity measures, our models also contained a number of control variables that past research has shown to affect work attitudes and job security perceptions of standard employees (for example, Osterman 2000; Appelbaum, Bailey, Berg, and Kalleberg 2000; Batt 2002; Davis-Blake, Broschak, and George 2003; Broschak and Davis-Blake 2006). These include attributes of individuals (such as , education, gender, age, marital status, whether respondents had dependent children, ethnicity, trade union membership, tenure in the focal organization), jobs (for example, hours worked per week and a scale measure of job autonomy with a $\alpha = 0.78$), and workplaces (for example, workplace size, industry, sector, whether part of a multisite establishment, workplace age, degree to which personnel practices are formalized, and the presence of high involvement work practices).

Models

To analyze the data we used hierarchical linear models (HLM). Such models are appropriate for examining cross-level relationships, in this case, between heterogeneity in employment arrangements measured at the establishment level and work attitudes and job security perceptions of regular employees measured at the individual level of analysis. For our study, the intercepts from the level 1 (within-establishment) analysis served as the dependent variables in the level 2 (between-establishments) analysis. Thus, we were able to successfully model the effects of increasing heterogeneity in employment arrangements at the establishment level on work attitudes and job security perceptions of the standard workforce at the individual level without the shortcomings of the disaggregation or aggregation approaches.

Results

The means and standard deviations of the variables are presented in Table 1, although the bivariate correlation matrix is not shown due to space constraints. We begin by examining the impact of heterogeneity on standard employees' perceptions of job security, since our hypotheses suggest this as a key mediating variable. (Note that in this and subsequent analyses the coefficients for industry and sector are not shown for reasons of space, though they were included in the analyses.) Table 2 presents HLM analysis of the determinants of job security. Model 1 contains the composite measure of heterogeneity, while Model 2 uses the component measures, heterogeneity involving part-timers, and heterogeneity involving temporary workers. Neither the coefficient for the overall composite measure nor that for the measure of heterogeneity involving part-time workers attains significance; the latter is consistent with hypothesis 3. In contrast, the coefficient of the measure for heterogeneity involving temporary workers is highly significant and nega-

TABLE 1
Variable Means and Standard Deviations

Variable	<i>N</i>	Mean	Standard Deviation
Loyalty	15,221	3.67	0.91
Manager-Employee Relations	15,127	3.54	1.05
Job Satisfaction	15,305	3.52	0.77
Job Security	14,810	3.62	1.06
Heterogeneity, Composite	15,343	0.26	0.16
Heterogeneity, Part-Timers	15,343	0.21	0.17
Heterogeneity, Temporaries	15,343	0.11	0.14
Education	15,104	3.33	1.86
Gender	15,291	0.44	0.50
Age	15,300	5.55	1.30
Marital Status	15,270	3.22	1.24
Dependent Children	14,885	0.63	0.48
Ethnicity	15,202	0.06	0.23
Trade Union Membership	15,285	2.06	0.91
Company Tenure	15,318	3.36	1.36
Hours	15,341	3.71	0.16
Job Autonomy	15,290	3.04	0.79
Workplace Size	15,343	4.77	1.50
Multisite	15,343	0.82	0.38
Workplace Age	14,923	3.22	1.16
Formalized Practices	15,343	3.42	0.78
High-Performance Work Systems	15,343	3.40	1.35

tive, indicating that as the proportion of temporary workers in a workplace increases, workers perceive less and less job security. This is in line with the prediction expressed in hypothesis 4.

The analyses presented in Tables 3–5 examine the impact of heterogeneity on employees' job attitudes and the potential mediating effect of job security in this relationship. In each table Models 1 and 2 use the overall composite measure of heterogeneity and Models 3 and 4 use the component measures. Table 3 focuses on job satisfaction as the outcome variable. Models 2 and 4 provide evidence that job security is an important determinant of job satisfaction. The coefficients for the overall composite measure of heterogeneity are nonsignificant, as are those for the component measure for part-timers. The latter finding provides support for hypothesis 3a. In Model 3 the coefficient for the measure involving the use of temporary workers is significant and negative; however, this effect disappears in Model 4, which contains the job security variable. This is consistent with hypothesis 4a, suggesting that the impact of heterogeneity will be mediated by employees' perceptions of job security. Taken as a whole, the results provide partial support for hypotheses

TABLE 2
HLM Models Predicting Perceived Job Security from Heterogeneity Measures

Variable	Model 1	Model 2
Heterogeneity, Composite	-0.01 (0.10)	
Heterogeneity, Part-Timers		0.53 (0.33)
Heterogeneity, Part-Timers Squared		-0.74 (0.65)
Heterogeneity, Temporaries		-1.03 (0.34)***
Heterogeneity, Temporaries Squared		1.36 (0.77)
Education	-0.11 (0.02)***	-0.11 (0.02)***
Education Squared	0.01 (0.00)***	0.01 (0.00)***
Gender: Male	-0.06 (0.02)***	-0.06 (0.02)***
Age	-0.31 (0.04)***	-0.31 (0.04)***
Age Squared	0.03 (0.00)***	0.03 (0.00)***
Marital Status: Single	-0.04 (0.02)	-0.04 (0.02)
Marital Status: Widowed	0.17 (0.09)*	0.17 (0.09)*
Marital Status: Divorced	-0.08 (0.03)**	-0.08 (0.03)**
Dependent Children: Yes	-0.01 (0.02)	-0.01 (0.02)
Ethnicity: White	-0.01 (0.04)	-0.02 (0.04)
Trade Union Membership: Current	-0.09 (0.02)***	-0.09 (0.02)***
Trade Union Membership: Past	-0.07 (0.02)***	-0.07 (0.02)***
Company Tenure	-0.01 (0.01)	-0.01 (0.01)
Hours (Natural Log)	0.26 (0.06)***	0.28 (0.06)***
Job Autonomy	0.25 (0.01)***	0.25 (0.01)***
Workplace Size (Natural Log)	-0.04 (0.01)***	-0.03 (0.01)***
Multisite: Single Entity	0.07 (0.04)	0.09 (0.04)
Workplace Age (Natural Log)	0.03 (0.01)*	0.03 (0.01)*
Formalized Practices	-0.01 (0.02)	0.00 (0.02)
High-Performance Work Systems	-0.01 (0.01)	-0.01 (0.01)
Intercept	3.22 (0.27)***	3.12 (0.27)***
N	13,451	13,451

Note: Coefficients of dummy variables for industry and sector not shown.

*p<0.05 **p<0.01 *** p<0.001

1 and 2: the use of some nonstandard employees (temporaries) negatively affects standard employees' job attitudes, and these effects appear to operate largely through the impact on job security.

Table 4 presents comparable analyses to those shown in the previous table, using perceptions of management-employee relations as the dependent variable. The results are similar: the effect of the composite heterogeneity measure and that of the part-time measure on such perceptions are negligible but that of the temporary measure is significantly negative. The latter disappears when the measure of job security is included in Model 4, however. These results are also consistent with hypotheses 3a and 4a and, as before, provide partial support for hypotheses 1 and 2.

TABLE 3
HLM Models Predicting Job Satisfaction from Heterogeneity and Job Security

Variable	Model 1	Model 2	Model 3	Model 4
Heterogeneity, Composite	-0.05 (0.06)	-0.04 (0.05)		
Heterogeneity, Part-Timers			0.12 (0.18)	-0.03 (0.15)
Heterogeneity, Part-Timers Squared			-0.23 (0.36)	-0.01 (0.30)
Heterogeneity, Temporaries			-0.43 (0.18)**	-0.16 (0.15)
Heterogeneity, Temporaries Squared			0.78 (0.42)	0.43 (0.36)
Job Security		0.29 (0.01)***		0.29 (0.01)**
Education	-0.04 (0.02)**	-0.02 (0.02)	-0.04 (0.02)**	-0.02 (0.02)
Education Squared	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)*	0.00 (0.00)
Gender: Male	-0.06 (0.01)***	-0.04 (0.01)**	-0.06 (0.01)**	-0.04 (0.01)***
Age	-0.13 (0.03)***	-0.04 (0.03)	-0.13 (0.03)***	-0.04 (0.03)
Age Squared	0.01 (0.00)***	0.01 (0.00)	0.01 (0.00)***	0.01 (0.00)**
Marital Status: Single	-0.04 (0.02)*	-0.02 (0.01)	-0.04 (0.02)*	-0.01 (0.01)
Marital Status: Widowed	0.08 (0.06)	0.05 (0.06)	0.08 (0.06)	0.05 (0.06)
Marital Status: Divorced	-0.02 (0.02)	0.01 (0.02)	-0.02 (0.02)	0.01 (0.02)
Dependent Children: Yes	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)
Ethnicity: White	0.04 (0.03)	0.04 (0.02)	0.04 (0.03)	0.04 (0.02)
Trade Union Membership: Current	-0.08 (0.02)***	-0.05 (0.02)***	-0.08 (0.02)***	-0.05 (0.02)***
Trade Union Membership: Past	-0.05 (0.02)***	-0.03 (0.02)*	-0.05 (0.02)**	-0.03 (0.02)*
Company Tenure	-0.03 (0.00)***	-0.02 (0.00)***	-0.03 (0.01)***	-0.02 (0.00)***
Hours (Natural Log)	0.16 (0.04)***	0.07 (0.04)	0.17 (0.04)***	0.07 (0.04)
Job Autonomy	0.40 (0.01)***	0.33 (0.01)***	0.40 (0.01)***	0.33 (0.01)***
Workplace Size (Natural Log)	-0.03 (0.01)***	-0.02 (0.00)***	-0.03 (0.01)***	-0.02 (0.00)***
Multisite: Single Entity	0.06 (0.02)**	0.04 (0.02)*	0.06 (0.02)**	0.04 (0.02)*
Workplace Age (Natural Log)	0.01 (0.01)	0.00 (0.01)	0.01 (0.01)	0.00 (0.01)
Formalized Practices	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)
High-Performance Work Systems	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)
Intercept	2.26 (0.18)***	1.36 (0.16)***	2.22 (0.18)***	1.36 (0.16)***
N	13,879	13,445	13,879	13,445

Note: Coefficients of dummy variables for industry and sector not shown.

*p<0.05 **p< 0.01 *** p<0.001

Finally, the analyses presented in Table 5 examine the determinants of employee loyalty. Job security emerges as a key determinant of this, but in contradiction to hypotheses 1 and 2, neither the composite measure of heterogeneity nor either of the component measures indicates either direct or indirect effects on loyalty.

Conclusions and Discussion

One of the most significant changes that has taken place in industrialized

TABLE 4
HLM Models Predicting Perceived Management-Employee
Relations from Heterogeneity and Job Security

Variable	Model 1	Model 2	Model 3	Model 4
Heterogeneity, Composite	0.12 (0.09)	0.13 (0.09)		
Heterogeneity, Part-Timers			0.58 (0.30)	0.46 (0.29)
Heterogeneity, Part-Timers Squared			-0.79 (0.59)	-0.62 (0.57)
Heterogeneity, Temporaries			-0.60 (0.31) [°]	-0.29 (0.29)
Heterogeneity, Temporaries Squared			1.16 (0.71)	0.67 (0.67)
Job Security		0.26 (0.01) ^{***}		0.26 (0.01) ^{***}
Education	-0.00 (0.02)	0.03 (0.02)	-0.00 (0.02)	0.02 (0.02)
Education Squared	0.00 (0.00)	-0.00 (0.00)	0.00 (0.00)	-0.00 (0.00)
Gender: Male	-0.08 (0.02) ^{***}	-0.06 (0.02) ^{***}	-0.08 (0.02) ^{***}	-0.06 (0.02) ^{***}
Age	-0.13 (0.04) ^{***}	-0.04 (0.04)	-0.12 (0.04) ^{***}	-0.04 (0.04)
Age Squared	0.01 (0.00) ^{***}	0.01 (0.00)	0.01 (0.00) ^{**}	0.01 (0.00)
Marital Status: Single	0.03 (0.02)	0.04 (0.02) [°]	0.03 (0.02)	0.04 (0.02) [°]
Marital Status: Widowed	-0.01 (0.08)	-0.08 (0.08)	-0.01 (0.08)	-0.08 (0.08)
Marital Status: Divorced	-0.04 (0.03)	-0.02 (0.03)	-0.04 (0.03)	-0.02 (0.03)
Dependent Children: Yes	0.01 (0.02)	0.01 (0.02)	0.01 (0.02)	0.01 (0.02)
Ethnicity: White	-0.00 (0.04)	-0.01 (0.04)	-0.01 (0.04)	-0.01 (0.04)
Trade Union Membership: Current	-0.19 (0.02) ^{***}	-0.17 (0.02) ^{***}	-0.19 (0.02) ^{***}	-0.17 (0.02) ^{***}
Trade Union Membership: Past	-0.06 (0.02) ^{**}	-0.05 (0.02) [°]	-0.06 (0.02) ^{**}	-0.05 (0.02) [°]
Company Tenure	-0.09 (0.01) ^{***}	-0.09 (0.01) ^{***}	-0.09 (0.01) ^{***}	-0.09 (0.01) ^{***}
Hours (Natural Log)	-0.05 (0.06)	-0.15 (0.06) ^{**}	-0.04 (0.06)	-0.14 (0.06) [°]
Job Autonomy	0.32 (0.01) ^{***}	0.26 (0.01) ^{***}	0.32 (0.01) ^{***}	0.26 (0.01) ^{***}
Workplace Size (Natural Log)	-0.09 (0.01) ^{***}	-0.08 (0.01) ^{***}	-0.09 (0.01) ^{***}	-0.08 (0.01) ^{***}
Multisite: Single Entity	0.11 (0.04) ^{***}	0.07 (0.03) [°]	0.11 (0.04) ^{**}	0.08 (0.03) [°]
Workplace Age (Natural Log)	0.00 (0.01)	-0.00 (0.01)	0.00 (0.01)	-0.00 (0.01)
Formalized Practices	-0.00 (0.02)	-0.00 (0.02)	0.00 (0.01)	0.00 (0.02)
High-Performance Work Systems	0.02 (0.01) [°]	0.02 (0.01) [°]	0.02 (0.01) [°]	0.02 (0.01) [°]
Intercept	3.78 (0.26) ^{***}	3.01 (0.25) ^{***}	3.71 (0.26) ^{***}	2.97 (0.26) ^{***}
N	13,712	13,286	13,712	13,286

Note: Coefficients of dummy variables for industry and sector not shown.

[°]p<0.05 ^{**}p<0.01 ^{***}p<0.001

workplaces in the last three decades has been the very rapid expansion of nonstandard jobs (Kalleberg 2000). Thus, understanding the full effects of this change is critical for understanding the dynamics of many, if not most, contemporary organizations. Both popular and academic literatures have touted the advantages of personnel strategies involving the use of nonstandard workers, including greater adaptability to environmental shifts and reduced labor costs (for example, Lepak and Snell 1999; Matusik and Hill 1998). In the face of global competition and rapid technological change, such advantages

TABLE 5
HLM Models Predicting Organizational Loyalty from
Heterogeneity and Job Security

Variable	Model 1	Model 2	Model 3	Model 4
Heterogeneity, Composite	-0.05 (0.08)	-0.04 (0.07)		
Heterogeneity, Part-Timers			0.31 (0.24)	0.24 (0.23)
Heterogeneity, Part-Timers Squared			-0.77 (0.47)	-0.69 (0.44)
Heterogeneity, Temporaries			-0.23 (0.24)	-0.01 (0.23)
Heterogeneity, Temporaries Squared			-0.23 (0.56)	0.18 (0.52)
Job Security		0.24 (0.01)***		0.24 (0.01)***
Education	0.01 (0.02)	0.03 (0.02)	0.01 (0.02)	0.03 (0.02)
Education Squared	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)
Gender: Male	-0.11 (0.02)***	-0.09 (0.02)***	-0.11 (0.02)***	-0.09 (0.02)***
Age	-0.12 (0.03)***	-0.04(0.03)	-0.12 (0.03)***	-0.04 (0.03)
Age Squared	0.02 (0.00)***	0.01 (0.00)	0.02 (0.00)**	0.01 (0.00)**
Marital Status: Single	-0.07 (0.02)***	-0.07 (0.02)***	-0.08 (0.02)***	-0.07 (0.02)***
Marital Status: Widowed	-0.06 (0.07)	-0.13 (0.07)	-0.06 (0.07)	-0.13 (0.07)
Marital Status: Divorced	-0.03 (0.03)	-0.01 (0.03)	-0.03 (0.03)	-0.01 (0.03)
Dependent Children: Yes	0.05 (0.02)**	0.05 (0.02)***	0.05 (0.02)**	0.05 (0.02)**
Ethnicity: White	-0.09 (0.03)***	-0.08 (0.03)**	-0.09 (0.03)***	-0.08 (0.03)*
Trade Union Membership: Current	-0.09 (0.02)***	-0.07 (0.02)***	-0.09 (0.02)***	-0.07 (0.02)***
Trade Union Membership: Past	-0.05 (0.02)*	-0.04 (0.02)*	-0.05 (0.02)*	-0.04 (0.02)*
Company Tenure	-0.04 (0.01)***	-0.03 (0.01)***	-0.04 (0.01)***	-0.03 (0.01)***
Hours (Natural Log)	0.48 (0.05)***	0.39 (0.05)***	0.48 (0.05)***	0.39 (0.05)***
Job Autonomy	0.29 (0.01)***	0.23 (0.01)***	0.29 (0.01)***	0.23 (0.01)***
Workplace Size (Natural Log)	-0.04 (0.01)***	-0.03 (0.01)***	-0.04 (0.01)***	-0.03 (0.01)***
Multisite: Single Entity	0.10 (0.03)***	0.08 (0.03)**	0.10 (0.03)**	0.08 (0.03)**
Workplace Age (Natural Log)	0.01 (0.01)	0.00 (0.01)	0.01 (0.01)	0.00 (0.01)
Formalized Practices	0.03 (0.01)	0.03 (0.01)	0.03 (0.01)	0.02 (0.01)
High-Performance Work Systems	0.03 (0.01)***	0.03 (0.01)***	0.03 (0.01)***	0.03 (0.01)***
Intercept	1.60 (0.22)***	0.88 (0.22)***	1.58 (0.23)***	0.90 (0.22)***
N	13,806	13,383	13,806	13,383

Note: Coefficients of dummy variables for industry and sector not shown.
*p<0.05 **p< 0.01 *** p<0.001

have strong appeal. However, potential disadvantages from relying on such strategies also loom large. This research focused on one of the negative consequences of the increased use in many organizations of nonstandard workers to meet staffing needs: the impact on standard workers’ attitudes toward their employer and their work.

In line with a number of other studies (Geary 1992; Smith 1994; Broschak and Davis-Blake 2006), our findings indicate that the use of certain types of nonstandard workers can have a negative impact on a variety of work attitudes,

including loyalty, job satisfaction, and manager-employee relations. We explore a key mechanism that links the increased use of nonstandard workers to such attitudes: increasing job insecurity. Unlike some previous research on the link between the use of nonstandard work arrangements by firms and job security of regular employees (for example, Cappelli and Neumark 2004), we examine the job security perceptions of regular employees' directly. In this context we considered differences in the likely effects of increasing use of different types of nonstandard workers: part-timers and temporary workers.

Our analysis provided support for the argument that the increasing use of temporary workers was more likely to negatively affect perceived job security, and thus work attitudes, than increasing use of part-time workers. While other studies have also provided some evidence of the link between the use of temporary workers and job security perceptions of regular employees, prior work has often relied on samples of one or two organizations. Our analysis, based on a large national sample of workplaces and workers, provides more systematic confirmation of this link and demonstrates that the study of the interaction between macro structures and micro processes in work settings has promise for increasing our understanding of the design of employment systems for organizations.

The distinction between different types of nonstandard workers helps to address a contradiction in the literature on the design of employment systems for organizations and offers a more nuanced understanding of the impact of nonstandard work arrangements for organizations. As noted, some extant analyses suggest that the use of nonstandard workers often has very beneficial consequences for organizations (Lepak and Snell 1999); other analyses underscore the potential negative effects of increasing use of such workers (Broschak and Davis-Blake 2006), including growing work dissatisfaction and inclination to change jobs among standard workers.

We show that at least part of the basis for such disagreement arises from the failure of analysts to consider more closely the possible mechanisms through which nonstandard work arrangements affect the work attitudes of regular employees. In showing that part-time workers have little effect on standard workers' perceptions of job security, our results suggest that in designing employment systems organizations should consider how particular types of nonstandard workers may differentially affect relations among standard and nonstandard workers. A corollary is that organizations should exercise caution in integrating temporary workers into their employment systems, paying particular attention to the impact of personnel practices such as using temporary workers as a substitute for hiring new standard workers or hiring agency temporaries to screen for regular positions.

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