MIXING STANDARD WORK AND NONSTANDARD DEALS: 
THE CONSEQUENCES OF HETEROGENEITY IN EMPLOYMENT 
ARRANGEMENTS

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We examined how proportions of individuals in standard and nonstandard work arrangements affected work group members’ relationships with supervisors, social relations with coworkers, willingness to assist others, and intentions to leave their organization. Supporting Blalock’s theory of majority-minority group relations, higher proportions of nonstandard workers were associated with less favorable attitudes toward supervisors and peers, increased turnover intentions, and decreased work-related helping behaviors. The consequences of heterogeneity in employment arrangements were contingent on (1) workers’ locations in their firm’s mobility system, (2) type of nonstandard arrangements, and (3) the amount and type of contact between standard and nonstandard workers.

The use of nonstandard work arrangements, such as temporary, contract, and part-time work (Kalleberg, 2000; Kalleberg, Reskin, & Hudson, 2000) is becoming increasingly common. Kalleberg and his colleagues defined standard work as “work done on a fixed schedule—usually full-time—at the employer’s place of business, under the employer’s control, and with the mutual expectation of continued employment” (Kalleberg et al., 2000: 258); nonstandard work arrangements lack one or more of these attributes. The proportion of U.S. workers in nonstandard arrangements is estimated to be as high as 33 percent (Belous, 1989; Houseman & Polivka, 2000), and the growth of new jobs being filled through nonstandard work arrangements is outpacing the growth of standard work arrangements (Be-
lawsuits if they dismiss the workers as unsuitable (Davis-Blake & Broschak, 2000).

Although using nonstandard workers can enhance organizational flexibility and allow firms to stabilize employment relationships for its standard workers, many firms mix standard and nonstandard workers within the same work groups, creating heterogeneity in employment arrangements among employees who must work together closely. We argue that employment arrangements (standard or nonstandard) are observable and salient characteristics of workers. In contrast to standard workers, nonstandard workers operate under explicit restrictions either on hours worked per week or on the duration of their employment. Administrative control of some types of nonstandard workers (e.g., agency temporary workers, leased employees) resides with a labor market intermediary such as a temporary employment agency or professional employer organization (Kalleberg, 2000; Pfeffer & Baron, 1988). Many nonstandard workers also lack access to the internal training and mobility opportunities available to standard workers (Kochan, Smith, Wells, & Reibitser, 1994; Lautsch, 2002).

A large literature has documented that salient and observable differences between members of work groups can affect how employees respond to each other and to their work groups (see Williams and O’Reilly [1998] for a review). This literature has focused on differences that employees bring with them to the workplace (in, for instance, race, gender, and functional background) and has documented that heterogeneity along these dimensions generally has negative consequences for the attitudes and behaviors of individual work group members. However, as Reskin (2003: 4) argued, organizational actions that create visible differences between group members have the potential to create some of the same kinds of group work dynamics as ascriptive demographic differences, even when those organizational actions “are directed toward entirely different goals” unrelated to the creation of inequality between group members. Thus, it is possible that heterogeneity in employment arrangements, like other types of demographic heterogeneity, has negative effects on work group members.

Alternatively, because heterogeneity in employment arrangements can provide benefits to both standard workers (e.g., enhancement of job security and mobility) and nonstandard workers (e.g., flexible work arrangements, an alternative entry portal into an organization), it is possible that heterogeneity in employment arrangements operates differently than other types of demographic heterogeneity and in fact has positive effects on the attitudes and behaviors of work group members. Indeed, the assumption that employment arrangement heterogeneity is potentially beneficial, for both standard and nonstandard workers (Smith, 2001b), underlies some of the popular managerial prescriptions that employment arrangement heterogeneity is an important component of good human resource management.

Despite the prevalence of nonstandard work arrangements and the conceptual potential for heterogeneity in employment arrangements to affect group members’ attitudes and behaviors, researchers know relatively little about whether and how heterogeneity in employment arrangements affects members of work groups. In this study, we examined whether the consequences of heterogeneity in employment arrangements for work group members are largely negative, and thus similar to the consequences of other types of demographic heterogeneity, or whether heterogeneity in employment arrangements in fact has positive consequences for work group members. Our research extends the literature on organizational demography and examines Reskin’s (2003) proposition that salient, organizationally created differences can affect workers in the same way as ascriptive demographic differences. Our research also adds to the growing body of literature on the implications of the nonstandard workforce for organizations and individuals.

Our research addresses four specific questions. First, how does the proportion of individuals in standard and nonstandard work arrangements within a work group affect group members’ relationships with their supervisor, social relations with each other, willingness to assist each other, and intentions to exit their organizations? This question is important for both conceptual and practical reasons. Past research has shown that the mere presence of nonstandard workers can affect standard workers and is associated with increased conflict and poorer relations between coworkers, decreased organizational loyalty and increased turnover (exit) intentions among standard workers, and poorer relationships between managers and standard workers (Davis-Blake, Broschak, & George, 2003; Geary, 1992; Pearce, 1993; Smith, 1994). However, existing research has focused merely on how the presence or absence of nonstandard workers in a work group affects standard workers and has not examined variations in the prevalence of nonstandard work arrangements or how varying levels of heterogeneity affect standard, as well as nonstandard, workers.

Although nonstandard work arrangements are typically in the minority in most work groups, work groups in the same organization often vary widely in the intensity of nonstandard worker use,
ranging from no nonstandard workers at all to proportions approaching 50 percent (Belous, 1989; Davis-Blake & Broschak, 2000). Theories of majority-minority relations suggest that the relative sizes of subgroups affect interpersonal relationships and conflict levels within groups (Allport, 1954; Blau, 1977; Blaylock, 1967; Kanter, 1977; Reed, 1978; Wagner, Pfeffer, & O'Reilly, 1984), which implies that the consequences of nonstandard worker use should be sensitive to the proportion of nonstandard workers in work groups. From a managerial perspective, the link between greater proportions of nonstandard workers and group functioning is important because decisions about how, when, and how much to use nonstandard workers are usually highly decentralized (Belous, 1989; Smith, 2001a). Midlevel managers typically have great discretion over the number of nonstandard workers in their work groups. Understanding the consequences of varying the proportion of nonstandard workers in a group could help inform their decisions.

Second, we examined how workers’ location in a firm’s mobility system affected their responses to heterogeneity in employment arrangements. Blaylock (1967) argued that status similarity and competition between majority and minority group members are likely to heighten the effects of heterogeneity. Nonstandard work arrangements are sometimes used as tools to attract, recruit, and screen individuals for a firm’s standard workforce (Davis-Blake & Broschak, 2000), putting nonstandard workers in competition with entry-level standard workers for lower-level positions and making the two groups somewhat similar in status. Therefore, we tested whether workers’ reactions to heterogeneity in employment relationships were moderated by their hierarchical positions in the organization for which they performed work.

Third, we considered how the effects of heterogeneity in employment arrangements varied across types of nonstandard work. As Kalleberg (2000) noted, nonstandard work is not a homogeneous category; nonstandard work arrangements vary in the extent to which they are similar to standard work arrangements and in the extent to which they provide opportunities for nonstandard workers to enter the standard workforce. For instance, previous research has shown that the use of temporary workers has different effects on the loyalty and turnover intentions of standard coworkers than does the use of contract workers (Davis-Blake et al., 2003). Therefore, we investigated how the effects of heterogeneity in employment arrangements varied for different types of nonstandard work.

Finally, we examined how the degree of contact between standard and nonstandard workers affected reactions to heterogeneity in employment arrangements. Organizations vary substantially in both the type and amount of contact they permit between standard and nonstandard workers. To alleviate concerns about coemployment liability for nonstandard workers and minimize comparisons of work arrangements among individuals performing similar tasks, some managers attempt to limit contact to work-related activities only, while others permit and even encourage social contact between the two groups in the workplace (Davis-Blake & Broschak, 2000; Smith, 2001b). A number of researchers have argued that increased contact among members of different subgroups improves relations and reduces conflict (Allport, 1954; Blau, 1977; Kanter, 1977; Sherif, Harvey, White, Hood, & Sherif, 1954). However, this effect depends on the type of contact between subgroup members (Allport, 1954). We examined how both task-related and non-task-related (social) contact between standard and nonstandard workers affected work group dynamics.

As the use of nonstandard work arrangements proliferates (Connelly & Gallagher, 2004; Kalleberg, 2000), understanding the implications of creating a flexible workforce becomes critical. In the next section, we argue that nonstandard work arrangements are salient, ascriptive characteristics of employees and that differences in employment arrangements are likely to affect how workers respond to each other and to their work groups. We then present theory and develop hypotheses about the effects of heterogeneity in employment arrangements on work group members.

NONSTANDARD WORK ARRANGEMENTS

Numerous studies have detailed the differences between various types of nonstandard employment arrangements (Belous, 1989; Kalleberg, 2000; Kalleberg et al., 1997, 2000; Pfeffer & Baron, 1988). Befort (2003) suggested that one way to conceptualize these arrangements is by logically grouping them into two categories based on the legal relationship between the nonstandard workers and the organizations for which they provide services. Independent contractors, contract workers, and leased employees, whether self-employed or employed by entities other than the ones for which they perform work, are examples of workers who cannot be legally classified as employees of the organizations for which they provide services. Part-time and temporary workers, on the other hand, either have legal status as employees of the organization for which they perform work (e.g., part-time and direct-hire temporary workers), or can more
easily make claims to that legal status (e.g., agency temporary workers) because they “perform work at a particular company as a short-term supplement to a firm’s regular workforce” (Befort, 2003: 158). Indeed, firms often put in place elaborate measures to distinguish agency temporary workers from standard workers precisely to prevent agency temporary workers from claiming this legal status. Regardless of their legal categorization, all forms of nonstandard work create heterogeneity in employment arrangements; however, we focused solely on the second category of nonstandard work, which was the only category present in our field research setting.

One of the difficulties inherent in the study of nonstandard work is that the specifics of nonstandard workers’ employment relationships can vary greatly across firms (Smith, 2001b). For example, the level of concern about coemployment, and thus the degree of differential treatment of standard and nonstandard workers, varies across firms. In this study, we examined employment arrangements in two locations of a single firm. Thus, an important boundary condition of our research is that our results are shaped by the types of nonstandard workers used and by the particular ways in which this firm and its supervisors managed nonstandard employment arrangements. The firm that we studied employed only two types of nonstandard workers in the work groups we observed—temporary workers hired through one of three agencies with which the firm had a national contract, and part-time workers. The firm did not have any positions designated explicitly as part-time. Rather, it created part-time work arrangements to accommodate former standard workers who wanted to work on a part-time basis. Although the firm we studied managed nonstandard work arrangements in ways that are typical and not highly idiosyncratic, where appropriate throughout the article, we describe the particular practices of this firm. In the Discussion section, we address the issue of boundary conditions and generalizability in more detail. Below, we discuss some typical attributes of part-time and temporary work. From in-depth interviews with department and human resources managers and focus groups with standard and nonstandard employees, we concluded that all of the attributes of part-time and temporary work discussed below were present in the firm we studied.

Part-time work, defined as working less than 35 hours per week, is the most common form of nonstandard work in the United States (Kalleberg, 2000). Some part-time positions can be classified as bad jobs, in that they offer incumbents low wages, few benefits, and no opportunities for advancement (Feldman, 1990; Kalleberg, 2000). However, we focused on “retention part-time jobs,” which are “special arrangements negotiated to attract or retain valued [standard] employees” (Tilly, 1992: 334). Retention part-time work typically has hourly compensation rates similar to the rates for standard work, with some reductions in fringe benefits and mobility opportunities. Although retention part-time positions can be created to attract skilled workers to a firm, they can also be developed ad hoc as part of a retention strategy for valued workers. In the firm we studied, managers used such positions as a tool to retain valued employees.

Temporary work arrangements are those where individuals generally work the same number of hours per week as standard employees, but the duration of employment is limited, typically to less than six months (Nollen & Axel, 1996). Temporary workers usually receive lower total compensation than standard employees and few, if any, benefits (Kalleberg et al., 2000). Some firms hire temporary employees directly, but most employers hire temporary workers through third-party intermediaries, such as temporary help agencies (Davis-Blake & Broschak, 2000; Kalleberg, 2000). A key feature of third-party employment arrangements is that agency temporary workers remain under the partial administrative control of temporary help agencies, which perform payrolling and other related activities (Pfeffer & Baron, 1988), while employers perform day-to-day management of individuals’ work. In many situations, such as the one we studied, firms employ temporary workers with an implicit understanding that there may be opportunities for them to “convert” from temporary to standard employment status. In fact, some managers expressly use temporary employment to screen potential standard employees (Davis-Blake & Broschak, 2000).

Several features of retention part-time and temporary work arrangements make these kinds of arrangements as visible and salient to workers as differences in age, ethnicity, and other ascriptive characteristics and thus a likely basis for social categorization processes (Jehn, Northcraft, & Neale, 1999). Retention part-time workers are readily distinguishable from and visible to their standard coworkers because they work fewer hours per week than standard workers, making their exits and absences from the workplace stand out. The difference in part-time workers’ schedules is particularly salient in settings such as the one we studied, where all full-time workers observed identical work hours and where attendance and tardiness were strictly monitored. Retention part-time workers also tend to receive work assignments that are
less complex, interdependent, and interesting than work assigned to standard workers (Alexander, Nuchols, Bloom, & Nee, 1995). For example, in the setting we studied, many tasks had to be completed by daily deadlines (such as those set by banks for check clearing). Given that failure to meet deadlines had direct financial consequences, part-time workers tended to be assigned simpler tasks with shorter completion times.

Many organizations assign temporary workers distinctive markers, such as specially colored uniforms, hardhats, or identification badges, making them conspicuous and easily distinguishable (Rafaeli & Pratt, 1993; Smith, 2001b: 93). Firms also make temporary work arrangements salient by creating organizational policies that clearly differentiate between temporary and standard workers, in order to avoid legal claims that the firm and a temporary agency or other labor market intermediary are coemployers. For example, some firms expressly prevent temporary workers from participating in routine company functions, such as award ceremonies, department lunches, and on-site charitable campaigns that are “for employees only” (Davis-Blake & Broschak, 2000; Smith 2001b), although individual managers may vary in how strictly they enforce such policies. The firm that we studied created both physical and policy distinctions between temporary and standard workers. For example, temporary workers had highly distinctive identification badges and were prevented from attending many company functions, even those sponsored by outside entities (such as blood drives sponsored by a local blood bank).

Case studies of temporary work support our contention that employment arrangements are salient to work group members. In her study of a document services firm, Smith (1994) found that standard employees stereotyped temporary workers as inconsistent performers who did not care about their work and who lacked “thinking quality.” After conducting in-depth interviews with temporary workers, Rogers (1995) concluded that temporary workers experienced social isolation and felt that standard employees treated them as “nonpersons.” This research suggests that differences in employment arrangements are salient to work group members and therefore that these differences will affect group relations (Kalleberg & Schmidt, 1996; Tsui, Egan, & O’Reilly, 1992; Wharton & Baron, 1987, 1991).

THEORY AND HYPOTHESES

A wealth of evidence demonstrates that the distribution of people across social positions such as tenure, gender, and race exerts a strong influence on individuals’ social relations and can negatively affect the attitudes and behaviors of group members (Blau, 1994; Jackson, Brett, Sessa, Cooper, Julin, & Peyronnin, 1991; O’Reilly, Caldwell, & Barnett, 1989; Pfeffer & O’Reilly, 1987). However, there is no research linking heterogeneity in employment arrangements to social relations in work groups. Below, we develop specific hypotheses about these effects.

Effects of Work Group Heterogeneity

A number of theorists have argued that the consequences of group heterogeneity depend on the relative proportions of majority and minority subgroup members (Allport, 1954; Blalock, 1967; Blau, 1977; Kanter, 1977). However, there is disagreement about the effects of minority proportions on group relations. Blau (1977) and Kanter (1977) suggested that intragroup relations should improve with greater proportions of minority members. When proportions of minority members are very small, minority individuals are visible and thus are closely watched. Majority members tend to exaggerate differences between themselves and minority group members, heighten social boundaries, and view minority members as stereotypes of their social category (Kanter, 1977). As a result, minority members become socially isolated, intragroup relations are poor, and group members have negative reactions to the group and possibly to the organization within which the group is located. With greater proportions of minority members, increased contact between majority and minority members leads to increased understanding and communication and reduced stereotyping and, as a result, group relations improve.

In contrast, Blalock (1967) argued that greater proportions of minority members will evoke increasingly negative psychological and social reactions from members of the majority (see also Hoffman, 1985; South, Bonjean, Markham, & Corder, 1982). Majority and minority members often have unequal status, and contact between individuals of unequal social status is likely to threaten majority members’ status (Blalock, 1967) and evoke negative reactions toward minority members. Minority group members are likely to find these reactions troublesome and perhaps even offensive. Greater proportions of minority members increase the likelihood of contact between group members of unequal status, leading to poorer intragroup relations. Blalock (1967) further argued that the larger the size of the minority group, the greater the perceived economic and social competition between majority and minority members. This competition can pro-
voke discriminatory behaviors and contribute to poor intragroup relations. Following this reasoning, a higher proportion of minority members should negatively affect the attitudes and behaviors of group members.

In considering these competing perspectives for the case of heterogeneity in employment relationships, we expect the proportion of nonstandard workers to operate more like the latter than the former. As previously noted, several studies have documented that the presence of nonstandard workers creates conflict and tension in work groups. However, we expect that these difficulties are not due to misunderstandings and a lack of communication between different types of workers (which should be alleviated by a more balanced group composition). Instead, we argue that when work arrangements are heterogeneous, standard and nonstandard workers experience conflict in three arenas: status, mobility opportunities, and the allocation of tasks. These conflicts degrade intragroup relationships and lead to negative attitudes and behaviors among group members.

We develop our arguments by referring to temporary and retention part-time workers since, as we previously noted, they were the only nonstandard workers present in our research setting. However, our conceptual framework also applies to other types of nonstandard work arrangements. Later, we discuss the implications of extending this framework to nonstandard work arrangements not empirically studied here.

Status. In general, workers in similar jobs and occupations possess similar status (Blau & Duncan, 1967). But nonstandard workers are generally accorded lower social status than standard workers because of the limited duration of their employment, their low level of firm-specific expertise, or their assignments to lower-complexity tasks (Davis-Blake & Uzzi, 1993; Lautsch, 2002). Smith (1994) observed that hidden status hierarchies developed among standard and temporary production workers in which standard workers perceived themselves to be structurally superior to temporary workers. Similarly, Chattopadhyay and George (2001) found that temporary workers perceived their jobs to be of lower prestige than comparable positions held by standard workers. For temporary workers, these status differences are reinforced in a number of ways, such as the use of identity markers and lack of access to employee-only resources and social activities (Davis-Blake & Broschak, 2000; Feldman, Doeringhaus, & Turnley, 1994; Lautsch, 2002).

For retention part-time workers, status markers differentiating them from standard workers are less visible. Although their expertise and jobs may be similar to those of standard workers, retention part-time workers typically have few opportunities for upward mobility. Because an individual’s position in a firm’s mobility structure often determines status in the firm, peers often afford lower social status to retention part-timers, who sacrifice mobility opportunities for hours tailored to fit their preferences (Miner, 1987). Retention part-time workers also tend to be assigned less complex or less favorable tasks (Alexander et al., 1998), reflecting their lower status. Blair-Loy (1999) reported that women were reluctant to accept retention part-time work even when it was offered because they feared the loss of status if they relinquished their standard employment.

When workers of unequal social status work in the same group and occupy similar job titles, higher-status individuals are likely to be threatened with status loss because the organizational design (everyone occupying the same job title and performing similar work) does not map onto the social status ordering (Blalock, 1967). Status loss triggers prejudice or discriminatory behaviors on the part of higher-status individuals and negative reactions to these behaviors by lower-status individuals. For example, some research has documented temporary workers’ negative reactions to the use of patronizing language such as “just a temp” by standard workers (Feldman et al., 1994; Rogers, 1995). In work groups with larger proportions of nonstandard workers, opportunities for equal-status contact between the higher-social-status standard workers and the lower-social-status nonstandard workers are more abundant than they are in work groups with lower proportions of nonstandard workers. As a result, there is a higher probability of dysfunctional intragroup relationships that can negatively affect both standard and nonstandard workers.

Mobility opportunities. It is not uncommon for firms to use temporary workers in low-level positions as a substitute for hiring new standard workers (Davis-Blake & Broschak, 2000). The substitution of temporary for standard workers can create real or perceived internal competition for jobs between temporary and standard workers. For example, Smith (1997) noted that managers sometimes use temporary workers to signal to standard workers the tenuousness of their own positions. The competition between temporary and standard workers is likely to be particularly intense when they perform nearly identical tasks and when temporary workers can convert to permanent status (both practices were common in the studied firm)—and thus the temporary and standard workers are competing directly for some positions. Indeed, Bar-
opportunities for their standard coworkers. Although they do not compete directly with standard workers for opportunities, retention part-time workers can also affect the mobility of standard workers. Retention part-timers typically occupy jobs that are above entry level, but they lack opportunities for future advancement (Tilly, 1992). Thus, they rarely vacate their positions unless they exit their firms and therefore block the mobility of standard workers below them. In summary, competition for positions between standard and nonstandard workers generates rivalry between members of these different social categories. Also, use of nonstandard workers who themselves have limited or no mobility opportunities, can produce conflict by reducing mobility opportunities for their standard coworkers.

**Allocation of tasks.** Heterogeneity in employment arrangements is likely to lead to conflict over the allocation of tasks. Typically, temporary workers have little or no firm-specific experience and receive little or no training and orientation from the firm for whom they perform work (Davis-Blake & Broschak, 2000). In many firms, training and supervision of temporary workers is delegated to their standard coworkers (Geary, 1992; Smith, 1994), creating new, uncompensated tasks for standard workers. Standard workers may resent these extra burdens and may communicate that resentment to their nonstandard coworkers. In addition, Lautsch (2002) noted that the use of temporary workers influenced managers to assign the most complex and difficult tasks to standard workers. Case studies of temporary workers also report that temporary workers are often assigned less desirable tasks by managers and, where possible, standard workers may actively shift their less desirable tasks to temporary workers (Parker, 1994). Although task shifting creates substantial resentment among temporary workers, it is often made easier by the informal supervisory responsibilities that standard workers assume for temporary workers.

Overloading of standard workers and assignment of less desirable tasks to nonstandard workers also occurs in the case of retention part-time employees, but typically it is more the result of managerial choice than of direct work shifting by peers. Retention part-time workers are limited to a maximum number of work hours per day and per week. As a result, standard workers must shoulder a greater share of a work group’s workload and must also absorb any tasks remaining after part-time employees leave for the day. In addition, retention part-time workers are prevented from working overtime, making this work arrangement unsuitable for complex or time-consuming tasks that require flexible scheduling. In fact, retention part-time workers report that their work assignments are less interesting than those of standard workers (Alexander et al., 1995).

The arguments we’ve presented suggest that greater proportions of nonstandard workers in a work group should create higher levels of conflict over status, mobility opportunities, and the allocation of tasks. These dynamics should, in turn, affect group members’ attitudes toward their supervisor and coworkers. As noted earlier, decisions regarding nonstandard workers are usually delegated to departmental managers who have a great deal of discretion over how nonstandard workers are used (Belous, 1989; Davis-Blake & Broschak, 2000; Smith, 2001a). Smith noted that this decentralized decision making has created a “central role for supervisors and middle-level managers in shaping these new forms of work and employment relations” (2001a: 7). Because decisions about heterogeneity in employment arrangements are the responsibility of supervisors, workers are likely to hold their supervisors responsible for the consequences of heterogeneity. Thus, greater proportions of nonstandard workers are likely to lead to poorer relationships between workers and their supervisor.

Increases in the proportion of nonstandard workers should also affect relations between coworkers. Research on organizational demography has demonstrated that increased dissimilarity in groups leads to more limited communication, increased conflict, and more negative evaluations of dissimilar others (Tsui & O’Reilly, 1989; Zenger & Lawrence, 1989). Thus, members of work groups where employment relationships are heterogeneous should feel less psychologically linked to individuals who have different employment arrangements than themselves and should report lower levels of social integration than members of homogeneous work groups.

When group members’ experiences with peers and supervisors are unsatisfactory, they are likely to “attempt to leave that group (psychologically or in reality)” (Turner, 1987: 30). Though one option open to employees is to leave their work group, there is a range of acceptable alternative ways to withdraw from work without physically leaving. For example, individuals may withdraw by withholding extra-role assistance from coworkers. Drawing on the preceding arguments, we hypothesize:

Hypothesis 1. The degree of heterogeneity in employment arrangements in a work group has a positive effect on work group members’ turn-
Moderating Effect of Location in a Firm’s Mobility System

Increasing proportions of nonstandard workers are likely to affect some employees more than others. Barnett and Miner (1992) reported that while the use of temporary employees slowed the upward mobility of lower-level workers, it accelerated the mobility of upper-level workers. Retention part-time workers typically have few opportunities for future mobility (Tilly, 1992), and as a result they can block the mobility of individuals at lower levels of a firm’s mobility structure. Thus, we expect lower-level standard and lower-level nonstandard employees to be more strongly affected by heterogeneity in employment arrangements than higher-level employees.

In addition to experiencing more direct competition for mobility opportunities, lower-level workers are also likely to react more strongly to the status threats created by blocked mobility opportunities than higher-level workers. As Blalock (1967) has noted, the lowest-status (lowest-level) group members often experience threats created by equal-status contact the most strongly. Taking these two arguments together, we hypothesize:

Hypothesis 2. The effects of heterogeneity in employment arrangements on turnover intentions, work-related helping behaviors, and relations with supervisors and peers are greater for individuals at lower levels in a firm’s mobility system than for individuals at higher levels in the mobility system.

Effects of Different Types of Nonstandard Workers

Whether all types of nonstandard work have equal effects on workplace relations is a subject of debate (Davis-Blake et al., 2003). We argue that the presence of temporary workers raises conflict levels higher and has stronger negative effects than the presence of retention part-time workers. Status differences between temporary and standard workers are larger than the status differences between standard and retention part-time workers. Status differences between retention part-time and standard workers are largely based on differences in tasks, but status differences between temporary and standard workers are based on differences in skill, experience, and tasks as well as larger social norms about the low status of temporary workers. Thus, conflicts occasioned by equal-status contact between standard and nonstandard workers are likely to be greater in the case of temporary workers than in the case of retention part-time workers.

Conflict over mobility opportunities is also greater in the case of temporary workers than in the case of retention part-time workers. When the barrier between temporary and standard work status is permeable, temporary workers can compete directly with standard workers for jobs. Even if the real probability of conversion to standard work status is low, temporary workers may act as if their jobs are “merely a rung on the ladder to permanent employment with a good employer” (Smith, 2001b: 117). In contrast, the effect of retention part-time workers is more limited since they block mobility opportunities only for specific individuals who wish to occupy their positions on job ladders on a full-time basis.

Finally, the presence of temporary workers creates greater conflict over the allocation of tasks than the presence of retention part-time workers. Conflicts between standard and temporary workers arise because standard workers often must take on additional uncompensated training and supervision of temporary workers, because standard and temporary workers have different norms for task completion, and because social norms may dictate that it is appropriate to shift undesirable tasks to temporary workers. In contrast, conflicts over task allocation created by retention part-time workers are largely limited to which tasks to assign to standard versus part-time workers.

The preceding arguments suggest that the presence of temporary workers creates more resentment toward coworkers and supervisors and more negative intragroup dynamics than the presence of retention part-time workers. Thus, we hypothesize:

Hypothesis 3. Heterogeneity in employment arrangements created by use of temporary workers has stronger effects on group members’ turnover intentions, work-related helping behaviors, and relations with supervisors and peers than heterogeneity in employment arrangements created by use of retention part-time workers.

Task-Related versus Non-Task-Related Contact

Our arguments to this point have suggested that larger proportions of nonstandard workers in work groups lead to more negative work group relations. However, proportions alone say nothing about the
level of interaction between standard and non-standard workers. Interaction between individuals with different work statuses is likely to influence individuals’ perceptions of the other members of their work groups, and hence work group relations, separately from the effects of group composition (Sherif et al., 1954).

How interaction between standard and non-standard workers affects work group relations depends on the nature of the interaction (Allport, 1954). Some coworker interactions are task-related and necessary for individuals to perform their jobs. Work-related advice networks, sequentially or reciprocally interdependent tasks, and joint problem solving all involve task-related interactions. Other coworker interactions that occur in the workplace are more informal and social. For instance, coworkers may eat together in the company cafeteria or have conversations during breaks from work. Although firms may have formal policies that discourage some types of non-task-related interactions between standard and nonstandard workers, implementation of these policies is typically left to local department managers, and thus implementation can vary across work groups (Davis-Blake & Broschak, 2000). Because the substance of task-related and non-task-related interaction is very different, they may have different effects on work group relations.

We expect non-task-related interactions to positively affect work group relations by offsetting the conflicts that arise in heterogeneous groups. Non-task-related interactions facilitate the exchange of social information that may reduce tensions between standard and nonstandard workers in two ways. First, this social information may help individuals see similarities both in nonwork attributes such as hobbies or entertainment preferences and in work-related attitudes such as opinions about the quality of the physical space in which workers are situated. To the extent that standard employees find these interactions with nonstandard workers easy, desirable, and positively reinforcing (Williams & O’Reilly, 1998), non-task-related interactions should reduce the negative feelings created by conflicts over mobility opportunities or allocation of tasks.

Second, more nuanced information about a non-standard worker’s situation may allow standard workers to reaffirm their status relative to their coworkers’, thus improving relations toward coworkers. For example, standard workers’ dissatisfaction with the idiosyncratic work arrangements awarded to retention part-time workers might be mitigated by learning about the individual circumstances that led to working reduced hours or the lack of future promotion opportunities for the retention part-time worker. Drawing on these arguments, we hypothesize:

Hypothesis 4a. The level of non-task-related interaction between standard workers and coworkers in nonstandard work arrangements in a work group has a negative effect on the turnover intentions of group members and a positive effect on group members’ (1) relations with their supervisor, (2) relations with their peers in the work group, and (3) work-related helping behaviors.

Whereas non-task-related interactions alleviate work group conflict, task-related interactions are likely to increase conflict and harm work group relations because task-related interactions highlight existing conflicts over the allocation of tasks. Managers frequently assign standard and nonstandard workers to similar or identical jobs fully expecting they will have to interact to perform their work. Retention part-time workers possess the knowledge and skills to be effective performers but work fewer hours per week than either their standard or temporary coworkers. When standard employees must interact with part-time workers to perform tasks, both parties are likely to face some difficulties scheduling interdependent work around different work schedules and as a result experience frustration or dissatisfaction with their coworkers. In contrast, temporary workers have less job-related and firm-specific knowledge than either their standard or part-time coworkers. Therefore, having to interact with temporary workers to perform tasks is likely to increase the difficulty of coworkers’ tasks. Smith (1994) reported that when standard and temporary employees worked together, the lower skill and commitment levels of temporary workers were a source of conflict between the two types of employees. Task-related interaction also increases opportunities for standard workers to shift less desirable duties to temporary workers, increasing friction between the two classes of workers.

The negative effects of task-related interactions are likely not restricted to coworker relations. Managers make decisions about the use of temporary and part-time workers and the allocation of tasks to different types of workers. Conflict between coworkers that occurs as a result of task-related interactions is likely to be directed at the supervisors who created the work arrangements. Further, conflict that results from task-based interactions is likely to cause workers to have a lower propensity to assist their coworkers. Thus, we propose:
Hypothesis 4b. The level of task-related interaction between standard workers and coworkers in nonstandard work arrangements in a work group has a positive effect on the turnover intentions of group members and a negative effect on group members’ (1) relations with their supervisor, (2) relations with their peers in the work group, and (3) work-related helping behaviors.

METHODS
Research Setting and Sample
We tested our hypotheses using data collected from workers at two U.S. locations of a large, multinational financial services firm. We selected these two locations because both were responsible for similar activities (payment processing, account reconciliation, and inquiry/complaint handling), and local managers regularly utilized nonstandard workers to supplement the standard workforce. In our initial interviews with managers at each location prior to collecting data from employees, we verified that only standard, retention part-time, and agency temporary workers were used in these work units. Temporary workers were hired through one of three temporary help agencies, and managers at both locations reported that they used agency temporary work as a way to screen potential standard employees. This assertion was further supported by the fact that 32 percent of our standard worker respondents were former temporary workers for this firm. Part-time work arrangements arose only to accommodate former standard workers who wanted to work part-time and whom the firm was willing to allow to do so. Our interviews also confirmed that part-time workers were never converted to standard work status.

Our arguments about the effects of heterogeneity in work arrangements depend on the assumption that work arrangements are salient demographic characteristics to employees. We attempted to confirm the salience of work arrangements in several ways. First, we verified with managers numerous organizational practices that reinforced differences between employees with different work arrangements. For instance, temporary workers were issued distinctive employee badges to designate their status. Managers actively enforced the firm’s prohibition of temporary workers’ participation in company functions such as award ceremonies, company lunches, and blood drives and communicated this prohibition to all employees. Standard workers were routinely asked to work overtime during peak workload periods, but retention part-time workers were not. Part-time workers’ exit and entry behaviors, which resulted from their reduced hours, were closely monitored and highly visible, as standard workers had fixed hours of work. Formal organizational charts clearly indicated the work status of all employees, further suggesting that work arrangements were salient to managers and employees. Finally, we conducted focus group interviews with employees at each location in which we queried standard, part-time, and temporary employees about having coworkers of different work statuses in their work groups. These focus groups indicated that employees were keenly aware of the work status of their coworkers.

At both locations, the smallest formal structure into which employees were grouped was the department. Each department performed a single function, such as payment processing, account reconciliation, or mail handling. Workers generally performed clerical or low-level administrative work that required individual rather than group output. However, the division of labor required sequential or reciprocal interdependence between workers (Thompson, 1967), facilitating work-related interaction. Because nonstandard workers worked alongside standard employees and performed tasks identical or nearly identical to those done by standard employees, work-related interaction between standard and nonstandard workers was common. The existence of a common cafeteria and break room and the close proximity in which standard and nonstandard employees in each department worked—typically in the same room, which had only very low partitions between individual workspaces—created many opportunities for non-work-related interaction.

We collected survey data from 314 workers in seven departments across the two locations; 247 were standard workers; 30, part-time workers; and 37, temporary workers. The Appendix lists the key scales and individual items included in the survey. Employees were invited to participate in the survey through a letter from their supervisors, and response rates by department ranged from 56 to 94 percent, with an overall mean participation rate of 76 percent. The response rate was 76 percent for both standard and temporary workers and 73 percent for part-time workers. We administered survey questionnaires directly to employees on-site during working hours, over a two-day period. Only a researcher and workers were present during survey administration; supervisors and managers were not present. The survey asked respondents for basic demographic information and also asked questions about their work attitudes, behaviors, and interactions with standard and nonstandard coworkers.

Five standard and five temporary workers failed
to identify their departmental affiliations and could not be identified from secondary sources, rendering their surveys unusable. Missing data (29 incomplete surveys) further reduced the usable sample size to 275 respondents: 224 standard workers, 29 part-time workers, and 22 temporary workers.

To assure ourselves that the loss of cases did not affect our results, we performed two procedures to determine if those who provided incomplete surveys were demographically or attitudinally different from those with complete surveys. First, we performed paired t-tests on each of our independent variables, comparing the means of respondents with missing items with the means of those who submitted complete surveys. Second, we used the sample selection bias procedure recommended by Heckman (1979) to control for the effects of case loss due to missing data. Both procedures indicated that respondents with incomplete surveys were not significantly different from those who submitted complete responses and that the loss of cases did not affect the results.

Additionally, we obtained organization charts from the human resources manager showing each standard and nonstandard worker’s name, department, job title, job level, and reporting relationship. We also obtained archival demographic and work history data on standard employees from the corporate human resources staff to verify and supplement the data provided by respondents.

**Measures**

**Dependent variables.** We assessed supervisor-subordinate relations using five items that measured worker perceptions of the supervisor’s competence, friendliness, and level of concern for workers. We assessed coworker relations using six items that measured the extent to which coworkers helped each other, were friendly with each other, and defended their department to others. We assessed work-related helping behavior with a six-item scale developed by Morrison (1994) that measured the extent to which coworkers assisted coworkers who were absent or who had work-related problems or heavy workloads. Finally, we assessed turnover intentions with a three-item scale developed by Morrison (1994) that measured the extent to which coworkers were likely to leave the firm. We performed a confirmatory factor analysis, using the procedure suggested by Hatcher (1994) to verify the fit and discriminant validity of our four factors. Scale reliabilities are included in Table 1, which reports the means, standard deviations, and correlations among all variables.

**Independent variables.** Our independent variables were employment arrangement heterogeneity and the levels of task-related and non-task-related interaction between standard and nonstandard workers. We assessed heterogeneity in work arrangements using Blau’s (1977) index, where:

\[
H = 1 - \sum p_{ij}^2.
\]

To test Hypotheses 1 and 2, we calculated the index of heterogeneity for the mix of standard and nonstandard workers in each work group. To test Hypothesis 3, we calculated two separate indexes of heterogeneity for each work group, one for temporary workers and one for part-time workers. We used the most recent month’s organization chart for each department as the basis for calculating these heterogeneity measures. In our interviews, we asked department managers to verify that the numbers of standard, temporary, and part-time workers were reported accurately on the organization charts.

We assessed the level of task-related and non-task-related interaction between standard and non-standard workers by summing the responses to two items for task-related interaction and two items for non-task-related interaction. Respondents were asked how frequently they interacted with the other specific types of standard and nonstandard workers in their departments in order to do their jobs (formal interaction) and socially at work (e.g., informal interaction at lunch and on breaks).

**Moderating variable.** Our moderating variable was a respondent’s level in the firm’s mobility system, which we assessed using each worker’s job grade as indicated in corporate records. The organization where the research was conducted had a very well defined internal labor market, in which all positions on promotion ladders were identified by job grades, and employees could only be promoted after acquiring specific skills and experience in their current grades. Standard and nonstandard workers were present at all levels in the firm’s mobility system.

**Control variables.** To isolate the effects of employment arrangement heterogeneity and interaction between standard and nonstandard workers, we controlled for a number of individual, job, department, and organization variables that might influence work-related attitudes and behaviors. We controlled for each respondent’s age, gender, and
### TABLE 1
Means, Standard Deviations, and Correlations for All Variables\(^{a}\)

| Variable | n  | Mean | s.d. | 1     | 2     | 3     | 4     | 5     | 6     | 7     | 8     | 9     | 10    | 11    | 12    | 13    | 14    | 15    | 16    | 17    | 18    | 19    | 20    | 21    | 22    | 23    |
|----------|----|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1. Supervisor-subordinate relations | 275 | 17.80 | 5.58 | (.94) |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 2. Coworker relations | 275 | 20.50 | 5.05 | (.88) |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 3. Work-related helping behaviors | 274 | 21.92 | 5.25 | (.90) |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 4. Turnover intentions | 272 | 6.99  | 3.20 | (.76) |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 5. Index of heterogeneity, nonstandard workers | 275 | 0.31  | 0.17 | (.02) |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 6. Index of heterogeneity, temporary workers | 275 | 0.17  | 0.15 | (.61) |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 7. Index of heterogeneity, part-time workers | 275 | 0.19  | 0.21 | (.34) |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 8. Task-related interaction | 275 | 5.95  | 2.21 | (.06) |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 9. Non-task-related interaction | 275 | 5.67  | 2.23 | (.56) |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 10. Standard worker\(^{b}\) | 275 | 0.81  | 0.39 | (.16) |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 11. Temporary worker\(^{b}\) | 275 | 0.08  | 0.22 | (.03) |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 12. Part-time worker\(^{b}\) | 275 | 0.11  | 0.31 | (.10) |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 13. Gender | 275 | 0.81  | 0.39 | (.08) |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 14. Company tenure | 275 | 4.69  | 3.87 | (.09) |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 15. Structural location | 275 | 10.12 | 2.54 | (.35) |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 16. Previously temped\(^{b}\) | 275 | 0.29  | 0.45 | (.13) |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 17. Hours worked weekly | 275 | 42.46 | 7.42 | (.34) |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 18. Training responsibility | 275 | 4.02  | 2.26 | (.10) |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 19. Others' dependence | 275 | 6.05  | 3.76 | (.17) |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 20. Work independence | 275 | 16.94 | 3.91 | (.65) |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 21. Coworker evaluation | 275 | 7.25  | 1.96 | (.82) |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 22. Percent male in department | 275 | 0.19  | 0.09 | (.04) |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 23. Perceptions of procedural justice | 275 | 5.29  | 2.22 | (.86) |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 24. Geographic location | 275 | 0.55  | 0.50 | (.04) |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |

\(^{a}\) Where relevant, Cronbach's alphas are given on the diagonal. Correlations greater than .12 are significant at \(p < .05\). Correlations greater than .16 are significant at \(p < .01\).

\(^{b}\) 1 = "yes."
company tenure. Because the effects of age were never significant in any of the models and omitting age did not affect any of our results, we dropped age from our analyses. We also controlled for previous temporary work experience with this employer. Workers who converted from temporary to standard work status might be more positive toward their supervisors and coworkers and might be more inclined to engage in helping behaviors.

In addition to controlling for the main effect of hierarchical level, we controlled for three other features of employees' jobs: the number of hours worked per week, as reported by each respondent; the extent to which a respondent's job involved spending time supervising and training other workers; and interdependencies between the respondent's job and other jobs in the department (Pearce & Gregersen, 1991). Previous research has shown that the delegation of responsibility for monitoring and training coworkers is one consequence of heterogeneity in employment arrangements (Davis-Blake & Broschak, 2000) and that it can negatively affect employees' work-related attitudes (Geary, 1992). Further, the nature of interdependencies may affect both coworker relations and work-related helping behaviors—for example, jobs that require a high level of interdependence between coworkers may enhance feelings of social integration.

We controlled for two other characteristics of departments other than heterogeneity in employment arrangements. We used a two-item scale developed by Quinn and Staines (1979) to assess respondents' evaluations of the coworkers in their departments; this scale asks whether coworkers in a respondent's department have enough skills to perform their jobs adequately and whether they perform their jobs well. We also controlled for the percentage of a department's workers who were male because there is some evidence that work status and gender are correlated (Kalleberg et al., 2000).

Because employees' reactions to heterogeneity in work arrangements can be influenced by how fairly standard and nonstandard workers are treated (Geary, 1992; Pearce, 1993), we controlled for the level of perceived procedural justice at the work site using two items developed by McFarlin and Sweeney (1992). Given the substantial evidence that perceived procedural justice affects satisfaction and commitment (Folger & Konovsky, 1989), controlling for procedural justice also helped us rule out the possibility that reactions to heterogeneity in work arrangements were confounded with reactions to the level of procedural justice in the organization. Finally, to control for the effects of unobserved organizational variables that might influence attitudes and behavioral intentions, we also included in all models a binary variable indicating the geographic location where respondents worked.

RESULTS

Pooling the responses of standard, temporary, and retention part-time workers, we tested our hypotheses using ordinary least squares (OLS) regression analyses on the four dependent variables. We assessed whether the statistical assumptions underlying OLS regression held for these analyses by examining residual plots for evidence of heteroskedasticity, condition indexes for evidence of multicollinearity, and influence statistics for problems with outliers. No major violations of the assumptions underlying OLS were observed.

Table 2 shows the results of models predicting the effects of employment arrangement heterogeneity and level of interaction between standard and nonstandard workers on each of our dependent variables. For each of the four dependent variables, there are three models. Models 1, 4, 7, 10, which test Hypotheses 1 and 2, contain results for the effects of heterogeneity calculated using standard and nonstandard workers as the only two groups in the heterogeneity measure, and results for the interaction with structural location. Models 2, 5, 8, and 11 add the effects of task-related and non-task-related interaction with nonstandard workers, testing Hypotheses 4a and 4b. Models 3, 6, 9, and 12 contain results in which the effects of heterogeneity calculated separately for temporary and part-time workers are used to test Hypothesis 3.

We found strong support for Hypothesis 1. Heterogeneity in employment arrangements had significant, negative effects on supervisor-subordinate relations, coworker relations, and work-related helping behaviors, and it had a positive effect on turnover intentions. Hypothesis 2 states that the effects of heterogeneity in employment arrangements are larger for individuals in lower-level jobs. Our results support this hypothesis. For all four dependent variables, the interaction between the index of heterogeneity for all nonstandard workers combined and structural location was significant. We present graphs of these interactions in Figures 1 through 4. The figures contrast the effects of heterogeneity on workers one standard deviation above (grade 13) and below (grade 8) the mean job grade of all respondents (grade 10). For individuals in the lower job grade, heterogeneity in employment arrangements negatively affected coworker and supervisor relations and helping behaviors and positively affected turnover intentions. In contrast, for individuals in the higher job grade, heterogeneity
### TABLE 2
Results of Regression Analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1: Supervisor-Subordinate Relations</th>
<th>Model 2: Supervisor-Subordinate Relations</th>
<th>Model 3: Supervisor-Subordinate Relations</th>
<th>Model 4: Coworker Relations</th>
<th>Model 5: Coworker Relations</th>
<th>Model 6: Coworker Relations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Index of heterogeneity, nonstandard workers</td>
<td>$-31.92^{**}$</td>
<td>$-30.63^{**}$</td>
<td>$-25.44^{**}$</td>
<td>$-24.85^{**}$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nonstandard worker heterogeneity × structural location</td>
<td>$2.42^{**}$</td>
<td>$2.31^{**}$</td>
<td>$2.54^{**}$</td>
<td>$2.46^{**}$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task-related interaction with nonstandard workers</td>
<td>$-0.42^{**}$</td>
<td>$-0.45^{**}$</td>
<td>$-0.18$</td>
<td>$-0.20$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-task-related interaction with nonstandard workers</td>
<td>$0.55^{**}$</td>
<td>$0.50^{**}$</td>
<td>$0.42^{**}$</td>
<td>$0.42^{**}$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Index of heterogeneity, temporary workers</td>
<td>$-47.78^*$</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temporary worker heterogeneity × structural location</td>
<td>$3.43^*$</td>
<td></td>
<td></td>
<td>$5.92^{**}$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Index of heterogeneity, part-time workers</td>
<td>$-20.56^{**}$</td>
<td></td>
<td></td>
<td>$-3.31$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Part-time worker heterogeneity × structural location</td>
<td>$1.54^*$</td>
<td></td>
<td></td>
<td>$-0.01$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temporary worker</td>
<td>$1.80$</td>
<td>$2.37$</td>
<td>$2.79^*$</td>
<td>$3.17^{**}$</td>
<td>$3.56^{**}$</td>
<td>$4.45^{**}$</td>
</tr>
<tr>
<td>Company tenure</td>
<td>$0.74$</td>
<td>$0.79$</td>
<td>$1.00$</td>
<td>$-0.05$</td>
<td>$0.04$</td>
<td>$0.61$</td>
</tr>
<tr>
<td>Structural location</td>
<td>$1.02$</td>
<td>$0.83$</td>
<td>$0.85$</td>
<td>$-0.49$</td>
<td>$-0.69$</td>
<td>$-0.85$</td>
</tr>
<tr>
<td>Previously temped</td>
<td>$0.28$</td>
<td>$0.40$</td>
<td>$0.47$</td>
<td>$1.41^*$</td>
<td>$1.52^*$</td>
<td>$1.67^{**}$</td>
</tr>
<tr>
<td>Hours worked weekly$^b$</td>
<td>$-0.37$</td>
<td>$-0.74$</td>
<td>$0.86$</td>
<td>$-0.11^*$</td>
<td>$-0.11^*$</td>
<td>$-0.09^*$</td>
</tr>
<tr>
<td>Training responsibility</td>
<td>$0.15$</td>
<td>$0.14$</td>
<td>$0.14$</td>
<td>$0.30^*$</td>
<td>$0.27$</td>
<td>$0.20$</td>
</tr>
<tr>
<td>Others’ dependence</td>
<td>$0.16$</td>
<td>$0.12$</td>
<td>$0.11$</td>
<td>$0.04$</td>
<td>$0.00$</td>
<td>$0.02$</td>
</tr>
<tr>
<td>Work independence</td>
<td>$0.16^*$</td>
<td>$0.14$</td>
<td>$0.13$</td>
<td>$0.04$</td>
<td>$0.04$</td>
<td>$0.04$</td>
</tr>
<tr>
<td>Coworker evaluation</td>
<td>$0.41^*$</td>
<td>$0.37^*$</td>
<td>$0.41^*$</td>
<td>$1.16^{**}$</td>
<td>$1.13^{**}$</td>
<td>$1.18^{**}$</td>
</tr>
<tr>
<td>Percent male in department</td>
<td>$0.32$</td>
<td>$0.16$</td>
<td>$-2.37$</td>
<td>$3.68$</td>
<td>$7.16^*$</td>
<td>$4.44$</td>
</tr>
<tr>
<td>Perceptions of procedural justice</td>
<td>$0.97^{**}$</td>
<td>$0.95^{**}$</td>
<td>$0.96^{**}$</td>
<td>$0.62^{**}$</td>
<td>$0.59^{**}$</td>
<td>$0.54^{**}$</td>
</tr>
<tr>
<td>Geographic location</td>
<td>$-5.06^{**}$</td>
<td>$-4.71^{**}$</td>
<td>$-5.91^{**}$</td>
<td>$1.13$</td>
<td>$1.52$</td>
<td>$3.69^*$</td>
</tr>
<tr>
<td>Intercept</td>
<td>$23.26^{**}$</td>
<td>$21.49^{**}$</td>
<td>$23.44^{**}$</td>
<td>$16.71^{**}$</td>
<td>$14.52^{**}$</td>
<td>$11.30^*$</td>
</tr>
<tr>
<td>Adjusted $R^2$</td>
<td>0.30</td>
<td>0.33</td>
<td>0.33</td>
<td>0.41</td>
<td>0.43</td>
<td>0.44</td>
</tr>
<tr>
<td>$n$</td>
<td>273</td>
<td>273</td>
<td>273</td>
<td>275</td>
<td>275</td>
<td>275</td>
</tr>
</tbody>
</table>

$^a$ Unstandardized regression coefficients are shown, with standard errors in parentheses. All significance tests are one-tailed for main effects and interactions, two-tailed for controls.

$^b$ In hundreds.

* $p < .05$

** $p < .01$
had no effect on helping behaviors, relations with supervisors, or turnover intentions, and it had a positive effect on relations with coworkers. These results are generally consistent with our argument that conflicts over status, mobility opportunities, and task allocations are greater for workers at the lower levels of a hierarchy.

Hypothesis 3 states that heterogeneity involving temporary workers has stronger negative effects on workplace relations and behaviors than heterogeneity involving regular workers.
neity involving part-time workers. We tested this hypothesis by modeling the effects of heterogeneity for temporary and part-time workers separately (models 3, 6, 9, and 12) and tested for significant differences between the two heterogeneity coefficients (using an $F$-test). We found partial support for this hypothesis. For coworker relations (Table 2, model 6), the effects of temporary worker heterogeneity are larger than the effects of part-time worker heterogeneity ($F = 9.06, p < .01$). However, for supervisor relations (Table 2, model 3) and turnover intentions (Table 3, model 12), the two heterogeneity coefficients did not differ significantly ($F = 1.52, p < .22; F = 1.21, p < .28$, respectively). For work-related helping behaviors, the effect of heterogeneity due to temporary workers was positive rather than negative.

Hypotheses 4a and 4b state that, with work group heterogeneity controlled for, higher levels of non-task-related interactions between standard and nonstandard workers positively affect intragroup relations and behaviors, but higher levels of task-related interactions between standard and nonstandard workers have negative effects. We found
strong support for Hypothesis 4a and partial support for Hypothesis 4b. Higher levels of non-task-related interactions between standard and non-standard coworkers had strong, positive effects on all four dependent variables, as predicted. In contrast, higher levels of task-related interaction had a negative effect on supervisor-subordinate relations, supporting Hypothesis 4b. However, task-related interactions had a statistically significant effect only on supervisor relations. The coefficients for the main and interaction effects of heterogeneity in employment arrangements were not affected when the task-related and non-task-related interaction variables were included.

**DISCUSSION**

Our results add to the body of research on consequences of demographic heterogeneity in work groups (Williams & O'Reilly, 1998). We extend this research to include demographic differences between group members created by organizational actions (Reskin, 2003). We have argued that employment arrangements, like outwardly visible, ascriptive demographic characteristics such as gender, race, and age, are salient characteristics of individuals in work groups. Nonstandard work arrangements are made salient by visible status markers, differences in the task assignments of standard
and nonstandard workers, and organizational practices and policies that reinforce differences between the two types of workers.

Our findings indicate that heterogeneity in employment arrangements evokes negative social and psychological reactions among group members toward their supervisors, peers, and work groups (Blalock, 1967; Hoffman, 1985). Our results also indicate that those employees located lower in a firm’s mobility system are more affected by heterogeneity in employment arrangements than those located higher in that system. Further, we find that heterogeneity created by use of temporary workers has more negative effects on relations between coworkers than heterogeneity created by use of retention part-time workers.

These findings build on and extend the work of Davis-Blake, Broschak, and George (2003) in four important ways. First, we demonstrate that the negative effects of a blended workforce are not due simply to the mere presence of nonstandard workers in work groups, but rather, vary with the proportion of nonstandard workers. These effects increase as the proportion increases. Second, Davis-Blake and her colleagues examined the effect of nonstandard work arrangements on standard workers, but we examined the consequences of heterogeneity in employment arrangements for all members of a work group. We demonstrate that the same types of dynamics reported by Davis-Blake et al. are present when the reactions of both standard and nonstandard workers to heterogeneity in employment arrangements are examined. Third, Davis-Blake and colleagues focused on reactions to an organization and its official representatives, but we examined both attitudinal and behavioral (i.e., helping behavior) reactions to coworkers. We demonstrated that reactions to heterogeneity in employment arrangements were not directed solely at the studied firm and its managers but were also directed at peers in work groups.

Finally, we have extended the study of heterogeneity of employment arrangements to include temporary and retention part-time work, two nonstandard work arrangements in which workers have or can easily claim legal status similar to that of standard workers (Befort, 2003). In contrast to Davis-Blake and her coauthors (2003), who found that the presence of temporary workers and contractors negatively affected standard workers’ relations with managers but that only temporary workers had strong effects on standard workers’ exit, voice, and loyalty, we found that heterogeneity in employment arrangements created by both temporary and part-time workers has strong effects on supervisor-subordinate relations and work-related helping behaviors. This finding provides additional support for Davis-Blake et al.’s (2003) argument that nonstandard workers who are administratively closer to their employers and who have or can claim the legal status of employees (Befort, 2003) have more strongly negative effects on standard workers than do nonstandard workers who are more administratively separate.

Although the overall pattern of results was as we predicted, two aspects of our findings were unexpected. First, we found that the presence of greater proportions of temporary workers in a work group increased helping behaviors among group members. One possible interpretation of these effects is that the firm-specific inexperience of temporary workers may force helping behaviors among coworkers. Although speculative, this interpretation concurs with previous empirical findings that standard workers are often required to provide uncompensated assistance to their temporary coworkers. The implication is that, under certain conditions, helping behaviors may be an indicator of underlying tension and conflict rather than cohesion and commitment to an organization. One possible avenue for future research is distinguishing the conditions under which employment systems facilitate voluntary rather than involuntary helping behaviors.

Second, we found that, for workers at higher levels in the studied firm’s mobility system, larger proportions of temporary workers improved coworker relations and slightly reduced turnover intentions. The reduction in turnover intentions may be a result of the accelerated mobility opportunities higher-level workers experience when temporary workers are employed. Improved coworker relations may be due to higher-level workers’ success in off-loading tasks to temporary workers and thus experiencing their presence as creating a supportive environment. Temporary workers may be particularly anxious to curry favor with higher-level employees, who may have some input into whether or not they are selected for permanent employment. Thus, temporary workers may strive to have particularly pleasant interactions with higher-level workers.

Our findings have several implications for the design of employment systems. Lepak and Snell (1999) argued that nonstandard work arrangements should be an integral part of a firm’s employment system. However, our results suggest that using nonstandard workers can have a price. Thus, managers should integrate nonstandard workers into ongoing work groups with caution, paying particular attention to the impact of policies—such as allowing temporary workers to convert to permanent status—that may reduce tensions with higher-level
employees while increasing conflict with lower-level employees.

Our findings for retention part-time workers suggest that nonstandard work arrangements designed to retain valued employees may negatively affect work group relations. This effect is consistent with Rousseau’s (2001) argument that, unless structured very carefully, “idiosyncratic deals” can create substantial resistance from other employees with “regular deals.” Higher proportions of retention part-time workers impair relationships between workers and their supervisors and reduce helping behaviors, suggesting that creating an idiosyncratic deal in order to keep an individual involved in an ongoing work group may in fact cause intragroup relations to deteriorate and may create negative stereotypes about the member with the idiosyncratic deal. Paradoxically, attempts to retain work group members with valued skills may reduce perceptions of those members’ contributions.

Our results also suggest two tactics that firms can employ to mitigate the negative effects of using nonstandard workers. First, our finding that task-related interaction between different types of workers negatively affects supervisor-subordinate relations suggests that supervisors of a heterogeneous workforce need to manage both the allocation of tasks and the training and orientation for those tasks. Having to navigate around the reduced work schedules of retention part-time workers and coordinate with temporary coworkers who lack firm-specific skills may cause tension and conflict that is directed at the supervisor who makes task allocation decisions. Supervisors who structure work to minimize interdependence between workers with different employment statuses, or who provide appropriate orientation and training for temporary workers, are likely to have better relations with their employees and more fully reap the benefits of a flexible workforce.

Second, our findings about the benefits of nonstandard workers. First, our analyzes are based on data collected from one organization in the financial services industry. The human resource practices and policies of this organization and the favorable economic environment of the financial services industry during data collection may have affected our results. Though we tried to minimize the effect of these limitations by studying two distinctly different business units of the organization, in geographically separate locations with extremely different labor market conditions, the experiences of this organization may not generalize to other organizations.

Second, our investigation was limited to the two types of nonstandard workers used in the work groups studied in this organization, agency temporary workers and retention part-time employees. In other jobs and industries, different nonstandard work arrangements, such as independent contracting and contract work with little possibility of workers claiming the legal status of employees, may be preferred as sources of organizational flexibility. Other types of nonstandard workers may be afforded higher rather than lower social status by their standard worker peers, or they may be assigned more complex tasks because of their idiosyncratic skills and expertise. Thus, the outcomes of heterogeneity in employment arrangements observed in this organization may not fully generalize to those nonstandard workers who are able to claim particularly high status. Future research should examine the consequences of heterogeneity in employment arrangements created by high-status nonstandard workers.

Third, although we have argued that the organizational practices and policies of this firm regarding nonstandard work arrangements were not atypical, we recognize there are other ways of managing nonstandard workers. For instance, in some contexts organizational policies expressly prevent conversion from temporary to standard worker status, and in some contexts managers segregate nonstandard workers from standard employees by opening separate production lines or locating nonstandard workers in dedicated facilities. These practices effectively reduce the amount of conflict that can develop between coworkers. It is also possible for firms to reduce the salience of employment arrangements by offering training and development opportunities to both standard and nonstandard workers. Thus, our findings may not generalize to organizations that use radically different methods to manage nonstandard workers than those reported here.

Finally, although we did assess reactions to interacting with nonstandard workers, we were not
able to directly assess levels of conflict, out-group bias, and other specific mechanisms that may underlie our results. However, the fact that our results are strong and consistent across four different outcome measures—even after we controlled for a large number of human capital variables as well as features of individuals’ jobs and work sites—offsets this limitation. Our findings demonstrate that heterogeneity in employment arrangements has multiple, important effects on the attitudes and behaviors of members of work groups. These effects have the potential to limit the effectiveness of nonstandard work arrangements, and managers interested in implementing nonstandard work should therefore carefully consider ways to mitigate these effects.

REFERENCES


Jackson, S., Brett, J., Sessa, V., Cooper, D., Julin, J., & Peyronnin, K. 1991. Some differences make a difference: Individual dissimilarity and group heterogeneity as correlates of recruitment, promotions, and


**APPENDIX**

**Measures of Key Variables**

**Supervisor-Subordinate Relations (Quinn & Staines, 1979)**

1. My supervisor is competent in doing his/her job.
2. My supervisor is very concerned about the welfare of those under him/her.
3. My supervisor is successful in getting people to work together.
4. My supervisor is helpful to me in getting my job done.
5. My supervisor is friendly.

**Social Relations between Coworkers (O’Reilly, Caldwell, & Barnett, 1989; Quinn & Staines, 1979)**

1. My coworkers in my department often help each other on the job.
2. My coworkers in my department really stick together.
3. My coworkers in my department usually get along with each other.
4. Members of my department are quick to defend each other from criticism by people from outside the department.
5. My coworkers in my department are friendly.
6. My coworkers in my department take a personal interest in me.

**Work-Related Helping Behaviors (Morrison, 1994)**

1. Handling work of coworkers who are absent or are on break.
2. Helping coworkers who have heavy workloads.
3. Helping orient new people even when not asked.
4. Helping coworkers with work when they have been absent.
5. Giving time to help coworkers with work-related problems.
6. Volunteering to do things without being asked.

**Turnover Intentions (Colarelli, 1984)**

1. If I have my own way, I will be working for this organization one year from now. (reverse-coded)
2. I frequently think of quitting my job.
3. I am planning to search for a new job during the next 2 months.

**Task-Related Interaction between Standard and Non-standard Workers**

1. How frequently do you interact with full-time/part-time/employees from your department in order to do your job?

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*a All items were rated on a five-point scale in which 1 was “strongly disagree” and 5 was “strongly agree,” except for task-related and non-task-related interaction, for which 1 was “never” and 5 was “always.” Cronbach’s alphas for all items are shown on the diagonal of Table 1.
2. How frequently do you interact with part-time/temporary employees from your department in order to do your job?

Non-Task-Related Interaction between Standard and Nonstandard Workers

1. How frequently do you interact socially with full-time/part-time employees from your department while at work (e.g., on breaks, lunch)?
2. How frequently do you interact socially with part-time/temporary employees from your department while at work (e.g., on breaks, lunch)?

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