Introduction

Social and economic changes in all industrial societies during the past quarter century (such as the increase in women’s labor force participation and greater diversity in labor markets, growth in international and price competition in product markets, rapid developments in technology, and corporate financial restructuring in capital markets) have underscored the need for organizations to have greater flexibility in their human resource management (HRM) practices and employee relations systems.

Employers and societies have responded to these changes by seeking two main kinds of flexibility. First, functional or internal flexibility refers to the ability of employers to redeploy their workers from one task to another. This is facilitated by the use of “high performance work systems” that empower workers to participate in decision-making, enable them to work in teams, and enhance their ability to work in a variety of jobs (see Appelbaum and Batt 1994; Osterman 2000; Gittleman 1999; Wood 1999). Second, numerical or external flexibility refers to the organization’s ability to adjust the size of its workforce to fluctuations in demand. While organizations can obtain numerical flexibility by asking or requiring their regular, full-time employees to work overtime, such flexibility is more often accomplished by using workers who are not their regular, full-time employees such as short-term hires, temporary help agency employees and contract company workers. These are often labeled nonstandard workers and may include both high skilled (e.g., consultants and inde-

Comparing Flexibility: Flexible Firms in a Cross-National Perspective

Arne L. Kalleberg and Karen M. Olsen

This paper illustrates the usefulness of applying a cross-national perspective in HRM research, here exemplified by a study of organizational flexibility. We compare numerical and functional flexible work practices in the United States and Norway. We explain the greater use of numerical flexible work practices in Norway by the stricter regulations on employers’ access to terminate regular contracts, and the substantial use of leave of absences. The use of functional flexible work practices is equally prevalent in both countries; only the use of self-directed teams seems to be more widespread in Norway. While this may reflect a convergence between the countries, we emphasize that the content of these work practices depends on the institutional settings. Furthermore, we suggest that the implications of flexible work practices may differ in these countries. Because fringe benefits, such as health insurance, are provided to people based on their residency in Norway, not their employment status, holding a temporary job may have less unfortunate implications in that country.

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pended professionals) and low skilled (e.g., clericals, food service) workers.

Greater flexibility has frequently resulted in benefits for employers. Organizations adopting high performance work practices have often reported that they experienced improvements in productivity and performance (Appelbaum, Bailey, Berg and Kalleberg 2000; Huselid 1995.) Some organizations have also been able to save on labor costs by using temporary and part-time workers, and subcontracting and outsourcing non-essential functions have enabled some organizations to concentrate more on their core competences and thereby to utilize their resources more efficiently.

Most of the research on organizational flexibility has focused on the United States, United Kingdom, and Canada. These studies have tended to be firm-centered, emphasizing employers’ choices regarding how they organize work. This reflects the highly deregulated labor markets and employment relations that characterize these countries, in which state regulations and institutions play relatively small roles in employers’ decisions to adopt one or the other form of flexibility. Illustrating this, Smith, Masi, van den Berg, and Smucker (1995: 705) found that there was much less uniformity across industries in the use of external (numerical) flexibility in Canada than in Sweden.

Studies of the consequences of working in flexible employment relations have also tended to center on Anglo-Saxon countries. Some research has shown that efforts to increase functional flexibility in the United States have led to benefits for some organizations and for certain workers who have obtained greater opportunities for autonomy and higher wages (see Appelbaum et al. 2000). For other workers, it is argued that there is often a “dark side” to employers’ search for flexibility: the flip side of flexibility is insecurity and there has been a general increase in job insecurity in the workforce (e.g., Harrison 1994; Standing 1997). In these cases, employers’ attempts to achieve flexibility have led to increased segmentation of their workforces into “core” and “periphery” components, creating a division between organizational “insiders” and “outsiders”.

A cross-national perspective is essential for appreciating the variability in causes and consequences of flexible employment relations. Organizations in all industrial countries need to be flexible in order to respond to competition, technological changes, and diversity in labor force composition. The types of flexible labor utilization strategies that organizations are likely to adopt, however, depend on their country’s institutional context. In addition, the impacts on individuals of outcomes that are often associated with flexibility—such as insecurity and inequality—are also likely to be shaped considerably by the institutional circumstances that differ among countries.

In this paper, we outline some ideas for a cross-national research agenda on organizational flexibility and its consequences for organizations and workers. This is a particularly apt topic for attempts to integrate rational economic and institutional perspectives on HRM. We illustrate some of the issues involved in the cross-national study of flexible firms by comparing two countries that differ in institutional and regulatory factors that may affect firms’ choices regarding employment: Norway and the United States. Norway is often labeled a corporatist country (Goldthorpe 1984; Høgsnes 1994; Western 1994), in which labor is strong and collective bargaining is widespread (the proportion of unionized employees in the Norwegian labor market is 60 percent—Stokke 1998). Moreover, Norwegian labor law places relatively strict limits on employers’ choices regarding employment arrangements. By contrast, labor markets in the United States are relatively deregulated, leaving employers with more choices as to what employment
arrangements to use. Labor in the U.S. is relatively weak (unions’ share of the workforce in the U.S. is less than 14 percent—Bronfenbrenner et al. 1998), individual contracts dominate, and employers tend to use dualist strategies that offer good jobs to some workers and bad jobs to others (Goldthorpe 1984).

We first describe the two main ways in which employers have sought to implement flexible HRM practices and summarize briefly some evidence on employers’ use of these strategies in Europe and the United States. We then illustrate how the use of numerically and functionally flexible practices differs between establishments in Norway and the United States. We finally discuss some implications of organizational flexibility for employees in these two countries.

**Flexible HRM Practices**

Much attention has been paid in recent years to forms of work organization and human resource management practices that are designed to enhance functional flexibility. These practices seek to provide employees with skills, incentives, information, and decision-making responsibility that improve business performance and facilitate innovation. The pervasiveness of these studies has led some to suggest that a focus on such new work and human resource management practices constitutes a “new paradigm” that is replacing unions and collective bargaining as the core innovative force in industrial relations research (Godard and Delaney 2000). These new practices have been called, alternatively: high performance work organizations (Appelbaum et al. 2000; Osterman 2000), transformed work organizations (Osterman 1994), flexible or alternative workplace practices (Gittleman, Horrigan and Joyce 1998), employee involvement systems (Cotton 1993), flexible production systems (MacDuffie 1995), progressive human resource management practices (Delaney and Huselid 1996), high-commitment systems (Walton 1985), and high-involvement management (Lawler 1988; Wood 1999).

A second, distinct, strand of research on organizational flexibility centers on employers’ attempts to obtain numerical flexibility and otherwise reduce costs by using workers who are not their regular, full-time employees. Forms of externalized labor have been called, alternatively, flexible staffing arrangements (Houseman 2001), market-mediated work arrangements (Abraham and Taylor 1996), contingent work (Polivka and Nardone 1989), and non-standard work arrangements (Felstead and Jewson 1999). A growing literature has sought to document and explain the growth of organizations’ use of flexible staffing arrangements (e.g., Houseman 2001; Kalleberg, Reynolds and Marsden 2003).

While most studies of organizational flexibility have emphasized either functional or numerical flexibility, some have sought to explain how organizations are able to obtain simultaneously these seemingly contradictory forms of flexibility (see the review in Kalleberg 2001).

An influential conceptualization of the way organizations in Anglo-Saxon countries combine these two forms of flexible labor utilization strategies is the dualist “core-periphery” model popularized by John Atkinson (1984; 1987) in the United Kingdom. This mode has been called, alternately, the “core/ring” configuration (e.g., Olmsted and Smith 1989), “shamrock” organization (Handy 1990), two-tier organization (Christensen 1991), and the “attachment-detachment” model (Mangum, Mayall and Nelson 1985). This model suggested to managers that they internalize part of their workforces (the “core,” regular, permanent workers who are highly trained, skilled and committed to the organization, attributes
that are thought to be needed for functional flexibility) at the same time as they externalize other activities and/or persons by means of transactional contracts. Segmenting the organization’s workforce into fixed and variable components is assumed to achieve cost effectiveness, as the numerically flexible, nonstandard, “peripheral” workers are used to buffer or protect the regular, “core” labor force from fluctuations in demand, thereby avoiding the morale problems engendered by laying off regular employees and the disequilibria (and illegalities in some countries) associated with treating regular workers differently.

The evidence in support of this core-periphery model is mixed, though this depends to some extent on how it is defined. A number of studies have found a negative or no relationship between functional and numerical flexibility within establishments, suggesting that there are conflicts and other problems that make the two kinds of flexibility incompatible (Osterman 1999; Davis-Blake and Uzzi 1993; Gittleman 1999; Cappelli 1995). By contrast, other studies have found that patterns of internalization and externalization may co-exist within the same organization (Morishima 1995; Lautsch 1996; Grenier, Giles, and Bélanger 1997).

There are other ways besides the core-periphery model to conceptualize how organizations use functional and numerical flexibility practices simultaneously. For example, organizations might be seen as utilizing various combinations of labor utilization systems, or types of human resource “portfolios,” that are chosen from a “menu” of possible such arrangements (e.g., Way 1992; Tsui et al. 1995). Organizations can also combine functional and numerical flexibility by establishing network relations with other organizations. They can achieve functional flexibility by developing collaborative relations among specialized suppliers and producers and may obtain numerical flexibility by outsourcing functions such as production, maintenance, repair, clerical and other “non-core” activities, and by hiring workers from temporary help agencies.

Cross-National Differences in Flexible HRM

Theoretical perspectives

Organizations in different countries are likely to vary in their use of particular HRM practices. Two major theoretical perspectives are especially useful in helping to understand country differences (and similarities) in these patterns: rational-economic and cultural/institutional theories (see Fenton-O’Creevy 2003, and Gooderham, Nordhaug and Ringdal 1999, for elaborations).

Rational-economic theories emphasize the role of efficiency in explaining why employers use flexible HRM practices. Economists generally argue that organizations use flexible staffing arrangements to maximize efficiency and reduce costs. For example, Transaction Cost Economics (TCE) maintains that employers will choose market mechanisms (e.g., temporary work) over hierarchies (standard employment arrangements) depending on their relative efficiency and costs, which in turn vary depending on other features of the transaction (e.g., Williamson 1985; Masters and Miles 2002). TCE is particularly useful in explaining the relative efficiency of different governance models for obtaining numerical flexibility (e.g., use of regular employees as opposed to contracting for non-regular workers).

By contrast, institutional theories often argue that organizational patterns are adopted to decrease uncertainty or to increase organizational legitimacy, as managers respond to institutional as well as economic uncertainties. Thus, the increase in the number of temporary help agencies and contract companies, along
with the promotion of quality standards for the labor they supply, have increased both the number of options available to employers and their confidence in these sources. This makes the use of flexible staffing arrangements more legitimate and reliable in the eyes of many managers, whether or not they actually increase efficiency or lower costs. The institutional approach is likely to be especially fruitful in explaining cross-national patterns of diversity, since it points to the importance of the role of the state—via laws and regulations governing trade union influence, employment protection, and the operation of temporary help agencies—and of economic, social and political institutions in shaping employers’ labor utilization strategies.

A key issue raised by cross-national research is whether there is a convergence or divergence among countries in use of functionally and numerically flexible human resource management practices. As discussed by the other papers in this issue of Beta, the convergence thesis predicts that organizations faced with similar competitive pressures will adopt similar HRM practices. Such convergence is encouraged by removal of barriers to international competition and the existence of international agreements and legislation (such as those enacted by the European Union). On the other hand, there are also good reasons to expect that organizations in different countries will differ in their use of flexible labor utilization strategies, since HRM practices are particularly sensitive to nationally idiosyncratic institutional pressures (Goodeham, Nordhaug and Ringdal, 1999).

**Institutional settings and flexibility strategies**

Whether organizations are likely to utilize numerical flexibility strategies depends on their country’s regulatory regime, such as the amount of protection given to regular, permanent workers and the existence of laws that limit the use of temporary help agencies to certain kinds of work. North American firms, in which employment protections and restrictions on temporary help agencies are relatively low, have been argued to rely more than European and Japanese firms on external flexibility strategies (Clarke 1992: 239-240). Thus, Smith et al. (1995: 705-707, 712) found that managers in the telecommunications industry were more likely to adopt numerical flexibility strategies as a response to economic pressures in countries (e.g., Canada) where national institutions involve few restrictions on managerial decisions regarding the level of employment. In Spain, the liberalization of regulations regarding fixed-term contracts in the mid-1980s has been cited as a major reason for the rapid expansion in such contracts (Toharia and Malo 2000: 312-313). The restrictions placed on terminating permanent employees in Spain have also made the use of fixed-term temporary contracts a useful way of lowering unemployment in that country.

In Germany, the strength of unions, dominance of occupational markets and strong systems of vocational training combined to provide less scope for the development of peripheral labor forces within firms in the 1980s (Lane 1989: 286-8) and so the emphasis was on “new production concepts” that facilitated functional flexibility (e.g., Kern and Schumann 1987: 159-167). Flood, Gannon and Paauwe (1995) illustrate these differences by showing the greater use of contingent workers in the American as compared to German facility of a major U.S. multinational corporation in the consumer products business. They attribute the fact that the German plant uses fewer contingent workers (and uses them differently) than the U.S. plant, despite having a greater need for numerical flexibility, as due to: “…partly differences between the U.S. and German labor laws, partly differences in labor
markets, and partly differences in management preferences driven by differences in national culture” (p: 283). The rigidity of the German labor market has increased the attractiveness of outsourcing as an option by which employers may avoid laws that make temporary workers permanent employees after a year.

The likelihood that organizations will adopt functionally flexible labor utilization strategies depends also on the existence of institutions that help employers spread the risk of long-term training, development and innovation in work design, as well as on a high level of trust between managers and workers. Germany and Japan had high trust relations in the 1980s and 1990s, and so were better able to achieve functional flexibility than Britain and France, which had relatively poor trust relations in this same period (Lorenz 1992: 457).

In the following analyses we examine how distinct institutional settings in the United States and Norway affect establishments’ combination of work practices. Our analysis addresses the question of whether there is a convergence of functional and numerical work practices in the United States and Norway. As we discussed above, Norwegian labor markets are more heavily regulated than those in the United States, and Norwegian labor law places stricter limits on employers’ choices regarding employment arrangements. In addition, Norwegian labor unions are more powerful than are unions in the United States. Based on the different traditions of worker participation and degree of regulations in the United States and Norway, we suspect that the use of functional and numerical work practices in these countries may follow independent trajectories. We also speculate on the consequences of functional and numerical work practices for workers. Considering the social democratic welfare system in Norway, the implication for workers holding “peripheral” jobs are likely to be different than for workers in the United States.

Data

The data we use to examine establishments’ use of functionally and numerically flexible HRM practices in these two countries come from telephone surveys of managers in 802 establishments in the U.S. (NOS-II) and 2130 establishments in Norway. The U.S. sample was drawn from a list of establishments provided by Dun and Bradstreet Information Services, and the Norwegian sample from Bedrifts- og foretaksregisteret provided by Statistics Norway. These samples are representative of all Norwegian establishments and U.S. establishments with more than 10 employees.¹ Both samples were stratified by establishment size (number of employees), since the majority of work organizations are small, in both Norway and the United States. To ensure that the samples contained a sufficient number of large organizations, the establishments were sampled with probability proportional to their size. In our samples, the distribution of establishments according to size differs somewhat: 31.5 percent of U.S. establishments have more than 500 employees, while only 8.5 percent of the Norwegian establishments belong to this category.

The U.S. survey was carried out in 1996-1997 and the Norwegian one in February/March 1997. The U.S. survey had a completion rate of 55 percent, and the Norwegian survey of 76 percent. More information on these data sets can be found in Olsen and Torp (1998)(for the Norwegian data) and in Kalleberg et al. (2003)(for the U.S. data).

Flexible Firms in the United States and Norway: Results

Table 1 presents descriptive information on measures of functional and numerical flexibility for the United States and Norway. Our measures of functional flexibility include whether the organization has: (1) self-directed
teams; (2) cross-training; (3) job rotation; and (4) job autonomy. Our indicators of numerical flexibility measure whether organizations: (1) hire short-term temporaries directly; (2) use temporary help agency employees; and (3) utilize employees of contract companies.

Table 1 indicates that the use of numerical flexibility is more widespread in Norwegian establishments than in the United States. About twenty-five percent of U.S. establishments directly hire fixed-term temporaries as well as use workers from Temporary Help Agencies (THA), and about a third utilize contract company employees. By contrast, 60 percent of the Norwegian establishments use direct-hire temporary workers, 30 percent use

<table>
<thead>
<tr>
<th>Flexibility Measure</th>
<th>United States</th>
<th>Norway</th>
<th>Country Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Functional Work Practices</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-directed teams</td>
<td>39</td>
<td>52</td>
<td>**</td>
</tr>
<tr>
<td>Cross-training</td>
<td>72</td>
<td>74</td>
<td></td>
</tr>
<tr>
<td>Job rotation</td>
<td>35</td>
<td>34</td>
<td></td>
</tr>
<tr>
<td>Job autonomy</td>
<td>47</td>
<td>49</td>
<td></td>
</tr>
<tr>
<td><strong>Numerical Work Practices</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct-hired temporaries</td>
<td>24</td>
<td>60</td>
<td>**</td>
</tr>
<tr>
<td>Temporary Help Agency (THA)</td>
<td>25</td>
<td>30</td>
<td>**</td>
</tr>
<tr>
<td>Contractor</td>
<td>35</td>
<td>71</td>
<td>**</td>
</tr>
<tr>
<td>N</td>
<td>723</td>
<td>2099</td>
<td></td>
</tr>
</tbody>
</table>

a Percentages are weighted by the inverse of the establishment’s probability of being selected.

b **p<0.001 (based on unweighted numbers).

Measures of Functionally Flexible Work Practices:

- **Self-directed teams**: Do teams (in core occupation) make decisions about task assignments or work methods? (yes=1, no=0)
- **Cross-training**: Are core workers cross-trained, that is, trained in skills for more than one job? (yes=1, no=0)
- **Job rotation**: Are core workers involved in job rotation? (yes=1, no=0)
- **Job autonomy**: How much choice do core workers have concerning the best way to accomplish their assignments? (complete or great choice=1; moderate, little, or no choice=0)

Measures of Numerically Flexible Work Practices:

- **Direct-hired temporaries**: The establishment uses workers that are employed for a fixed period of time.
- **THA**: The establishment uses someone to do the work who is on the payroll of a temporary help agency; the establishment directs the temporary employee’s work.
- **Contractor**: The establishment uses someone to do the work who is on the payroll of another company; the other company directs the employee’s work.
workers from THA, and 71 percent use contractor companies. Only 8 percent of Norwegian establishments use none of these arrangements, while the corresponding percentage for U.S. establishments is 45 (see Table 2).

The greater use of non-standard work arrangements in Norway can be explained by two main reasons (see Olsen and Kalleberg 2003, for an elaboration). First, labor law is more restrictive in Norway, which encourages employers to use nonstandard arrangements to achieve flexibility. Even though employers’ access to the use of temporary workers is limited, this is outweighed by the stricter regulations on dismissals of employees in standard employment relations. Norwegian employers can avoid the costs of terminating regular, open-ended contracts by using nonstandard arrangements (Oliver 1991). Second, the substantial use of leave of absences in Norway creates situations where a relatively large number of temporary workers are needed. Norwegian establishments face many situations where they have to fill in for persons who are on leave, which makes the use of temporaries an attractive option, particularly for fixed-term contracts and THAs. By contrast, U.S. establishments may have less need to employ workers on time-limited contracts since leaves of absences (for instance for childcare) are less common. In addition, employment contracts are more easily terminated in the United States; thus, the distinction between fixed-term and open-ended contracts is more blurred (Nesheim 2002).

We do not find much difference between countries in organizations’ use of functionally flexible practices: Table 1 indicates that only the use of self-directed teams differs significantly by country (their use is greater in Norwegian establishments). At first glance, this might reflect a convergence between these two countries: organizations in both countries face similar pressures toward becoming efficient and competitive, and thus these functionally flexible work practices are likely to be adopted in each country. This similarity could also reflect diffusion of HRM practices from one country to the other, though the direction of this diffusion is unclear. It could be, for example, that this reflects the adoption of American management practices in Norway. On the other hand, it might be that American organizations have adopted elements of “Scandinavian” management (see Appelbaum and Batt 1994) (though of course there are differences between the Scandinavian countries regarding forms of management). In any event, we are unable to disentangle the nature of this “convergence” (if indeed this is what it is) with these data.

We suspect that the similarity in organizations’ use of functional flexibility may well reflect different and independent trajectories. Functional work practices, like autonomous work groups, were an important principle of work organization in Samarbeidsprosjektet (the Co-operation project) between the Norwegian Confederation of Trade Unions (LO) and the Main Organization of Trade unions (NHO) in the 1960s (Gulbrandsen 1998). The experimental projects involving new principles of work organization in the manufacturing industry (see Thorsrud and Emery 1969) were very much the same principles of work organization that now are launched under different labels, such as “high performance work organizations” (HPWO) (Gulbrandsen 1998). The idea behind Samarbeidsprosjektet was to make jobs more interesting and increase worker democracy, which resulted in § 12 (Tilrettelegging av arbeidet) in the Work Environment Act (Gulbrandsen 1998; Bosch 1997), securing working conditions and autonomy. This is an example of the interrelations between union-employer co-operation and the legal environment.

The idea of worker participation is essential in high performance work practices. This kind
of participation is related to ones’ job and is in the human resource management tradition often labeled “empowerment” (Falkum 1999). Another form of worker participation is related to democracy in the workplace, which describes workers’ participation more broadly. In Norway, worker participation, both in terms of job autonomy and participation in the more general sense, is institutionalized in labor law and tariff agreements. For instance, board-level participation was established under the Joint Stock Company Act of 1973, and extended in the Work Environment Act of 1977 (Dølvik, Bråten, Longva, and Steen 1997).

Whether work practices like HPWO actually increase workers’ influence in the job, or whether they serve as tools to give the impression of shared values and restructuring the division of labor workers is not clear (see Thompson and McHugh 2002). Dobbin and Boychuk (1999) find that similar jobs carry very different levels of autonomy depending on the institutional setting. Workers in Nordic countries have greater discretion than workers in the United States, which Dobbin and Boychuk explain in terms of differences in the institutional contexts. This shows that although functional work practices are equally prevalent in Norway and the United States, the content of the jobs may differ. Data at the individual level are needed to explore this possibility further.

Table 2 cross-classifies establishments by their use of these two flexibility strategies. We measure the number of functionally flexible work practices used by the establishment (0-4).

<table>
<thead>
<tr>
<th># Functionally Flexible Work Practicesb</th>
<th>United States</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td># Numerically Flexible Work Practices</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Only full- and part-time employees</td>
<td></td>
<td>6</td>
<td>11</td>
<td>11</td>
<td>11</td>
<td>6</td>
<td>45</td>
</tr>
<tr>
<td>At least one numerically flexible work practice</td>
<td></td>
<td>6</td>
<td>6</td>
<td>22</td>
<td>17</td>
<td>6</td>
<td>57</td>
</tr>
<tr>
<td>All establishments</td>
<td></td>
<td>12</td>
<td>17</td>
<td>33</td>
<td>28</td>
<td>12</td>
<td>102</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th># Functionally Flexible Work Practicesb</th>
<th>Norway</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Total</th>
</tr>
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<tr>
<td># Numerically Flexible Work Practices</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Only full- and part-time employees</td>
<td></td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>At least one numerically flexible work practice</td>
<td></td>
<td>6</td>
<td>20</td>
<td>34</td>
<td>26</td>
<td>7</td>
<td>93</td>
</tr>
<tr>
<td>All establishments</td>
<td></td>
<td>7</td>
<td>22</td>
<td>36</td>
<td>29</td>
<td>7</td>
<td>101</td>
</tr>
</tbody>
</table>

a Percentages are weighted by the inverse of the establishment’s probability of being selected.
b The establishments within the dotted line are equivalent to the definition of the flexible firm in Table 3.
c Percentages may not add to 100 due to rounding.
For numerical flexibility, we differentiate between organizations that use only full- and part-time workers, on the one hand, and those that also use either direct hire temporaries (short term hires) or some sort of employment intermediaries (temporary help agency employees, contract company workers), or both.

Table 2 indicates that in Norway, two thirds of establishments used some combination of numerically flexible strategies such as direct hire temporaries, temporary help agencies, or contract companies along with two or more functionally flexible practices (establishments within the dotted line). By contrast, 45 percent of establishments in the United States used this combination of numerical and functional flexibility. These data provide suggestive evidence that a substantial percentage of establishments in both countries have adopted some form of core-periphery labor utilization strategy. These results also suggest that Norwegian establishments are more likely to use these combinations than establishments in the United States, which is mainly due to the greater use of numerically flexible practices in Norway.

Table 3 suggests how institutional factors may help to account for these country differences in the use of numerically and functionally flexible work practices. Here we examine how establishments’ use of these flexible work practices is related to several major institutional factors that differ between the United States and Norway: (1) proportion unionized in the establishment; (2) location in the public sector; and (3) establishment size. We also look at whether the establishment participates in international product markets, to assess the hypothesis that organizations exposed to international markets are more likely to adopt global, “international” HRM practices related to flexibility. The model also checks for interaction effects between each explanatory variable and country.

**Country Difference**

Establishments in Norway are more likely to use a combination of flexible work practices (as defined in this paper) than U.S. establishments, even after we control for unionization, public-private sector location, establishment size and participation in international markets. There is a negative effect of country (U.S.), and the probability for a U.S. establishment to use a combination of numerical and functional work practices is .36, while the probability for a Norwegian establishment is .62 (probabilities are computed based on the reference category in Table 3). This result reflects the more pervasive use of numerically flexible practices among Norwegian establishments. There is no significant country difference between the use of functionally flexible work practices when controlling for size, unionization, public-private sector location and participation in international markets.

These results are only suggestive: they need to be studied more intensively, utilizing more precise data. Nevertheless, they are indicative of the operation of institutional factors within countries, which work against convergence or diffusion of work practices from one country to the other. These findings underscore the importance of institutional structures that may operate as barriers to convergence and diffusion of HRM practices.

Nagelkerke R² is presented in Table 3 and gives information on the quality of the fit of the model. This measure is fairly low (although not exceptionally low) which indicates that there also may be other determinants, not included in our model, that explain the use of numerical and functional work practices.

**Unionization**

Unionized establishments in Norway are more likely to use a combination of functionally and numerically flexible work practices, while unionized establishments in the United States
are less likely to do this. The interaction term (between country and unionization) indicates that the effect of unionization differ in the two countries. In Norway, the greater likelihood that unionized establishments use a combination of flexible work practices is due to unions being more apt to be associated with functionally flexible (results not presented). This is consistent with the view that unions in Norway are more likely to be “partners” with management, and to encourage the adoption of functionally flexible work organization practices.

In the United States, the lower likelihood

Table 3. Results from Logistic Regressions of the Determinants of Establishments’ Use of Both Functionally and Numerically Flexible Work Practices in the United States and Norway

<table>
<thead>
<tr>
<th>Flexible Firma</th>
<th>Coef.</th>
<th>Std. Err.</th>
</tr>
</thead>
<tbody>
<tr>
<td>US</td>
<td>−1,083**</td>
<td>(0,187)</td>
</tr>
<tr>
<td>Union proportion</td>
<td>0,470**</td>
<td>(0,149)</td>
</tr>
<tr>
<td>Union proportion Xc US</td>
<td>−1,008**</td>
<td>(0,299)</td>
</tr>
<tr>
<td>Ln(size)</td>
<td>0,031</td>
<td>(0,040)</td>
</tr>
<tr>
<td>Ln(size) X US</td>
<td>0,047</td>
<td>(0,059)</td>
</tr>
<tr>
<td>Public sector</td>
<td>0,276 *</td>
<td>(0,132)</td>
</tr>
<tr>
<td>Public sector X US</td>
<td>−0,286</td>
<td>(0,235)</td>
</tr>
<tr>
<td>International market</td>
<td>0,634**</td>
<td>(0,157)</td>
</tr>
<tr>
<td>International market X US</td>
<td>−0,439</td>
<td>(0,274)</td>
</tr>
<tr>
<td>Interceptc</td>
<td>0,501 **</td>
<td>(0,069)</td>
</tr>
</tbody>
</table>

Nagelkerke R² | 0,075 |

N | 2614 |

<table>
<thead>
<tr>
<th>United States</th>
<th>Norway</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>Union proportion</td>
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</tr>
<tr>
<td>Number of employees (size)</td>
<td>243</td>
</tr>
<tr>
<td>Public sector</td>
<td>0,17</td>
</tr>
<tr>
<td>International market</td>
<td>0,05</td>
</tr>
<tr>
<td>N</td>
<td>723</td>
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</tbody>
</table>

a Dependent variable is whether (=1) or not (=0) establishment uses at least one numerically flexible work practice and two or more functionally flexible work practices (which is our definition of the flexible firm. See also Table 2).

b**p<0.001, * p<0.05
c Reference category is: Norway, ln(size) (65 employees), union proportion (0.58), private establishment, and national market.
d Percentages are weighted by the inverse of the establishment’s probability of being selected.
e X = interaction between two variables.
that unionized establishments use a combination of flexible practices is due to unions being negatively associated with numerical flexibility. Among the core activities of unions in the United States are heightening job quality and protecting the job security of members (Freeman and Medoff, 1984). This suggests that unions will seek to resist the use of externalized workers, who might constitute competitors to unionized workers. Kalleberg et al.’s (2003) analysis of the U.S. data—which controls for a variety of determinants of nonstandard work arrangements—is consistent with the argument that unionization limits the use of flexible staffing arrangements in the United States because such arrangements threaten the job security or compensation packages of regular full-time employees. Unions in Norway are also skeptical about non-standard arrangements, which may explain why high-unionized establishments tend to have the least use of numerical flexible work practices (see Olsen and Kalleberg 2003).

With regard to functional flexibility, union-management rules governing work organization in the United States may constitute a source of inertia that limits the introduction of teams and other functionally flexible practices, compared to otherwise similar establishments in which unions are absent.

Establishment size
We find no effect of size (number of employees in the establishment) in Norway, nor in the United States, on whether the establishment uses a combination of numerical and functional flexibility practices (Table 3). However, establishment size matters when numerical and functional flexible work practices are studied separately. In the United States, larger establishments are more likely to use numerical work practices, which is consistent with a number of previous studies (Mangum et al. 1985; Houseman 2001; Davis-Blake and Uzzi 1993). Larger organizations generally have bigger and more diverse pools of jobs than smaller ones, and therefore have more opportunities to make some use of flexible arrangements. Larger organizations may also have a harder time discharging standard workers, and are likely to have more costly benefit structures, which would make the use of nonstandard arrangements particularly attractive to them (Mangum et al. 1985). In Norway, there is also evidence that larger organizations take greater use of workers from Temporary Help Agencies, temporary workers, and contractor companies (Olsen 1998). On the other hand, size appears to be unrelated to functional flexibility both in the United States and Norway (results not presented).

Public versus private sector
Public sector establishments in Norway are more likely than private sector establishments to use a combination of flexible work practices, but public and private sector establishments in the United States do not differ in their use of this combination of flexible work practices. The public-private sector difference in Norway is due mainly to the greater use of functional flexibility, which may be a feature of the “new public administration” in this country (Hillestad 2003).

International markets
Whether an establishment operates in an international market is positively related to the use of a combination of flexible work practices only in Norway. Again, the difference in the relationship between international markets and being a “flexible firm” (i.e., the interaction effect between country and participation in an international market) is not statistically significant between the United States and Norway. The effect in Norway is due to Norwegian organizations operating in international markets being more likely to use functionally flex-
ible forms of work organization. This may, in turn, reflect the desire of these companies to compete more effectively by adopting “international” forms of work organization; establishments exposed to international markets may learn more quickly than others about alternative work practices (Osterman 1994).

Is there a “Dark Side” of Flexibility in Norway?

Nonstandard employment relations are attractive to employers because they may often reduce employment costs in addition to enhancing flexibility. However, there may be a “dark side” to the emphasis on flexibility. For many nonstandard workers, any gains in flexibility that employers obtain may come at a high price: the growth of nonstandard work arrangements may exacerbate insecurity and socioeconomic inequality if qualified workers who seek regular full-time jobs must settle for less desirable alternatives. A possible drawback for society of the core-periphery model, then, is that it may perpetuate a polarization of inequality between core and periphery workers that is based on wages and, increasingly, on hours worked and stability of employment (Pfeffer and Baron 1988).

Unfortunately, relatively little hard data exist on the inequalities associated with membership in core and periphery parts of organizations. While there is growing evidence that working in nonstandard jobs such as part-time and temporary positions are associated with “bad” jobs that pay less and do not provide fringe benefits in the United States, studies have only begun to examine this issue systemati- cally (e.g., Kalleberg, Reskin and Hudson 2000) and there has been very little cross-national research on this topic. Studies are particularly needed of inequalities within as well as between firms, of patterns of mobility between core and periphery sectors, and of differences among temporary help agency workers, independent contractors, and other categories of nonstandard workers (see the review in Kalleberg 2000).

We argue that the consequences of flexible firms differ between countries, depending on their institutional contexts. In particular, the use of numerical flexibility in Norway does not necessarily constitute a “dark side” of flexibility for workers. This is because in Norway, unlike the United States, fringe benefits such as health insurance are provided to people based on their residency and not their employment status; thus, nonstandard as well as standard workers in Norway receive health insurance. Norway is ranked among the most generous states in the OECD area with regard to employee social benefits (Dølvik et al. 1997). The universal state social security system covers medical support, sick leave pay, unemployment benefits, occupational rehabilitation, disablements benefits and old age pensions. All employees are in principle entitled to pay during sickness, and the sick pay scheme is regarded the most generous in the world, providing 100 percent salary (up to a certain ceiling) (Dølvik et al. 1997). The parental leave is 52 weeks (with 80 percent pay), which makes Norway a pioneer in this respect. This is an example of the equality politics of the welfare state in Norway (see Brandth and Kvande 2001).

Dølvik et al. (1997) conclude: “... there can be no doubt that Norwegian labor markets are surrounded by an extensive web of regulations, employment protection and social welfare schemes that, in an international perspective, grant Norwegian employees a high level of job security” (pp. 70-71). At the same time, the perceived job insecurity of holding a temporary job may be of importance to workers both in Norway and the United States.

An important consideration in evaluating whether there is a “dark side” of flexibility is whether temporary jobs provide a route into
more secure jobs later in a person’s career. Temporary workers are more likely to be “marginalized” if they are trapped in such jobs and cannot obtain permanent employment. Skollerud (1997) argues that there is little evidence that temporary workers are marginalized in the Norwegian labor market, since more than 50 percent had regular employment after a four-year period. Although the majority of temporary workers in Norway would prefer to have regular employment (Nergaard and Stokke 1996; Nergaard 2002), the transition from temporary to regular employment is higher in Norway compared to other OECD countries (OECD 2002; Nergaard 2002; Longva 2002). A recent study, conducted in a period of low unemployment, concludes that in Norway it is the main rule that fixed-term contracts leads to regular employment (Longva 2002). Also, evidence from a survey of employees of Temporary Help Agencies, conducted in a period of low unemployment, showed that a large majority was satisfied with their working hours (Torp et al 1998). While the evidence on this issue is relatively scarce, and the opportunities of transfer from a temporary to regular job is likely to be affected by the general economically situation, there seems to be some basis for the conclusion that temporary workers are not highly marginalized in Norway. This is in line with Ellingsæters’ (1995) findings on part-time work in Norway.

**Conclusions**

The increasing pressures on organizations to achieve flexibility in their HRM practices, and the possible mixed consequences of these flexible practices for organizations and (especially) employees, make it important to understand how and why organizations use functionally and numerically flexible employment systems, as well as their effects on organizations and workers.

Enhancing our understanding of human resource practices requires that we consider explicitly the role of the institutional context (e.g., laws and regulations governing trade union influence, which in turn reflect in part the values, norms and beliefs of society) in shaping patterns of organizational flexibility (e.g., Gooderham and Nordhaug 1997). For example, some institutional environments stress technical and economic demands that reward organizations for efficient behavior, while others are dominated by social demands emphasizing the importance of legitimacy. Much of the research on organizational flexibility has tended to be firm-centered, which may reflect the very deregulated labor markets and employment relations characteristic of the United States and United Kingdom, where most studies have been carried out.

In this article we have illustrated the utility of a cross-national perspective on employment relations by comparing establishments’ use of HRM practices in the United States and Norway. We have explained the higher use of numerically flexible work practices in Norway by the relatively strict regulations on employers’ choices in terminating regular contracts, and the substantial use of leave of absences in this country. The use of functionally flexible work practices is equally prevalent in both countries; only the use of self-directed teams seems to be more widespread in Norway. Whether this reflects a convergence between these two countries (organizations in both countries face similar pressures), a diffusion of HRM practices from one country to another, or different and independent trajectories should be a topic for further research.

Based on the distinct institutional settings in the United States and Norway, we suggest that the implications of flexible work practices for workers may differ in these countries. The regulatory framework in Norway may encourage employers to use numerical flexible work
practices, leading to relatively higher use of these practices in this country. However, holding a temporary job in Norway has less unfortunate implications, because fringe benefits such as health insurance are provided to people based on their residency not their employment status. Also, there is evidence that temporary jobs often provide a route to more secure jobs in Norway. Unfortunately, we were not able to examine directly the consequences of flexibility for employees in the two countries, since our data pertain to organizations and not to individual employees.

Explaining the use of flexible human resource practices should draw upon rational-economic theories (both Transaction Cost Economics and the Resource Based View) as well as institutional theories. Much more work on these issues needs to be done. For example, we need to understand better the conditions under which competitive forces are more important, and those under which institutional factors are more salient, in the use of flexible HRM practices. An understanding of these important questions requires cross-national research on the nature of work organization and employment relations.

References

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Høgsnes, G. 1994:


Notes
1 The U.S. sample included establishments with less than ten employees, which we excluded here to make the samples more comparable. Our analysis is thus based on 802 U.S. establishments instead of the original 1002.
2 NHO was called NAF until 1989.
3 Probabilities are computed based on the Logit-model: P(y=1|L)=exp(L)/1+exp(L).
4 We have examined how unionization, size, public sector, and international market affect functionally and numerically flexible work practices separately. These results are not presented.