

Relations industrielles Industrial Relations



Labour Deployment in Plants in Canada and Sweden A Three-Industry Comparison

L'affectation des travailleurs dans les usines canadiennes et suédoises

Comparaison de trois industries

Establecimiento de la fuerza laboral dentro de las plantas en Canadá y Suecia

Una comparación Tripartita

Joseph Smucker, Axel van den Berg, Michael R. Smith et Anthony C. Masi

Volume 53, numéro 3, été 1998

URI : <https://id.erudit.org/iderudit/005300ar>

DOI : <https://doi.org/10.7202/005300ar>

[Aller au sommaire du numéro](#)

Éditeur(s)

Département des relations industrielles de l'Université Laval

ISSN

0034-379X (imprimé)

1703-8138 (numérique)

[Découvrir la revue](#)

Citer cet article

Smucker, J., van den Berg, A., Smith, M. R. & Masi, A. C. (1998). Labour Deployment in Plants in Canada and Sweden: A Three-Industry Comparison. *Relations industrielles / Industrial Relations*, 53(3), 430–457. <https://doi.org/10.7202/005300ar>

Tous droits réservés © Département des relations industrielles de l'Université Laval, 1998

Ce document est protégé par la loi sur le droit d'auteur. L'utilisation des services d'Érudit (y compris la reproduction) est assujettie à sa politique d'utilisation que vous pouvez consulter en ligne.

<https://apropos.erudit.org/fr/usagers/politique-dutilisation/>

érudit

Cet article est diffusé et préservé par Érudit.

Érudit est un consortium interuniversitaire sans but lucratif composé de l'Université de Montréal, l'Université Laval et l'Université du Québec à Montréal. Il a pour mission la promotion et la valorisation de la recherche.

<https://www.erudit.org/fr/>

Labour Deployment in Plants in Canada and Sweden

*A Three-Industry Comparison*¹

JOSEPH SMUCKER

Concordia University, Montréal.

AXEL VAN DEN BERG, MICHAEL R. SMITH and ANTHONY C. MASI

McGill University, Montréal.

In the debates about the relationship between labour flexibility and employment security, the actual strategies managers employ under different policy regimes tends to be overlooked. This paper examines the nature of deployment strategies that managers employ for their retained labour force in production plants in Canada and Sweden in three industrial sectors – steel, pulp and paper and telecommunications. While Canadian managers have greater access to external markets and make greater use of layoff-recall strategies and overtime than their Swedish counterparts, deployment strategies within plants tend to require more formal negotiations, especially within unionized plants. Swedish managers can carry out changes in labour deployment in a more informal manner, particularly with respect to job responsibilities and new skills training. Swedish managers face more difficulties than their Canadian counterparts in altering quantities of labour.

In the contemporary rhetoric about the need for industrial firms to be more flexible in the “global economy”, emphasis is usually placed on the ease and speed in implementing cost-efficient innovations in capital for-

1. Support for this research was provided by the Social Sciences and Humanities Research Council of Canada, the Fonds pour la formation des chercheurs et l'aide à la recherche of the Government of Quebec, and the Humanistika och Samhällsvetenenskapliga Forskningsrådet of the Government of Sweden. The research reported here would have been impossible without the help of our collaborators on this project, Bengt Furåker (University of Gothenburg) and Leif Johanssen (University of Umeå). We thank the external reviewers of the journal for their helpful comments and suggestions.

mation, production technology, organizational design and the use of labour. Among these production components, labour plays a major role (Abraham 1990a, 1990b; Block 1990; Colclough and Tolbert 1992; Kelley 1990; Livingston 1993; Osterman 1988). Within the enterprise, typical options to achieve greater flexibility in labour inputs include manipulating numbers of workers and hours of work, altering wage schemes, adjusting skill requirements and changing work assignments, job responsibilities and management practices (Piore 1986: 158-162).

Although the range of options managers might have at their disposal is considerable, they still must take into account the requirements of their product markets and production technology and past patterns of labour-management relations (Sorge and Streeck 1988; Streeck 1987: 281-285). Further, their deliberations must consider institutional constraints, particularly government regulations, which influence social welfare programs, economic policies and labour market processes (Streeck 1992a: 4, 32-33; Boyer 1996: 87-95, 106-111; Peck 1996: 40-43; Houseman 1990; Berger 1990; Jessop 1995: 326; Muszynski 1985).²

In their pursuit of production efficiencies managers recognize that at least minimal levels of security, or trust, must be present in the labour contract. How extensive such security should be is a matter of debate since there is the question of the degree to which employment security inhibits the ease and speed by which labour can be redeployed (Streeck 1987; Åberg 1988; Abraham and Houseman 1994; Ginsburg 1983; Houseman 1990; Jangenas 1985; see also Miller 1992: 216-233).

In this paper, we examine the strategies plant managers use in deploying their retained labour force under two different sets of government labour market policies. Our comparisons are made among plants in Sweden and Canada within steel, pulp and paper and telecommunications sectors. We also include reactions to these schemes by representatives of organized labour and/or workers themselves. Because our focus is on labour deployment strategies *within* plants, we exclude from direct consideration the use of strategies which draw on "external" labour markets: strategies such as hiring and firing, the use of sub-contracting and the use of part-time and contract labour. These strategies are considered in another paper (Smith et al. 1995; see also Streeck 1992b).

2. Writers of the "regulation school" and their concept of "mode of social regulation" place the entire range of these constraints at the centre of their analyses of transformations in production processes. The form, if not the content, of their analyses is reminiscent of Althusarian interpretations. (See for example, Jessop 1994, 1995; Tomaney 1994; Tickell and Peck 1995; Peck 1996; Boyer 1996.)

GOVERNMENT LABOUR MARKET POLICIES: CANADA AND SWEDEN

Government labour market policies can be said to fall somewhere between two conceptually extreme types. The first is a “free market” model in which employment is subject directly to market forces with very limited guarantees of employment security. The state acts primarily as a referee and guarantor of contractual relations in the terms of employment. Prototypes which come close to this model are labour market policies in the United States and, to a somewhat lesser extent, those in Canada (Muszynski 1985; van den Berg and Smucker 1992).

In the second model, the state is a more active participant in labour markets, serving not only as a guarantor of contractual relations but also as a party of last resort in safeguarding employment for those who seek it. These safeguards may include policies that restrict the ease of layoffs, that provide subsidized training programs, that monitor and control wage differentials and that involve direct state interventions in the encouragement of growth and structural transformations. Labour market policies in Sweden as well as in a number of other Western European countries, approach this model (Osterman 1988: 116-128; Abraham and Houseman 1994; Streeck 1992a: 32-33; Houseman 1990; Glutchess 1985; Martin 1984; Korpi 1980).

Of course this dichotomy is stated in extreme terms. In fact, there are a host of policies in Canada, and, to a somewhat lesser extent in the United States, that provide for additional safeguards for workers in the employment contract. Organized labour has been the principal force behind these policies (Kumar 1993; Piore 1986; Masi 1991). In unionized plants, job classifications play a major role in determining not only skill levels, work responsibilities and wage levels but also who will be laid off and in what positions individuals will be hired. Under these conditions, managers are restricted in selecting those workers they wish to lay off or hire, in altering work assignments within plants and in altering wage levels and schemes of remuneration. Finally, Canadian managers assume, at least implicitly, that there are benefits to be derived from providing employment security to regain costs of skills training, and to ensure at least some minimal levels of trust in the employment contract (Smith et al. 1995; Wells 1986; Mangum, Mayall and Nelson 1985; see also Osterman 1988: 64-65).

In Sweden, legislated employment protection pursued by the centralized union movement has restricted the ease by which managers can rely on external labour markets in altering the quantity and quality of labour inputs. However, until the early 1990s, turnover rates had been quite high

in part because government policies encouraged early retirements.³ In recent years, while employment security remains relatively high for permanent employees, Swedish employers have also increased their use of temporary workers (OECD 1994: 70-80) and resorted to outright layoffs. Further, variations in wage levels among plants and enterprises have become increasingly common over the past two decades both as part of employee incentive plans and as a consequence of agreements with unions at the plant level to adjust wages downward in exchange for maintaining employment levels (Flanagan, Soskice and Ulman 1983: 313). Indeed, the well-known "Swedish model" which incorporated a high degree of employment security, has been under severe strain since the early 1970s. Open unemployment levels reached 9 percent in 1993 and another 5 percent of the labour force were engaged in various forms of active labour market programs, bringing the total unemployed to 14 percent (Lindbeck et al. 1994: 3). The causes of these developments (as well as suggested remedies) have been analyzed by a variety of government commissioned reports (see for example Lindbeck et al. 1994; Johansson and Wadensjö 1995; Blanchflower, Jackman and Saint-Paul 1995). Despite these caveats, we think that the differences between the two countries remain sufficiently significant to warrant a comparison of the effects of these labour market policies on the strategies managers use in deploying their employees.

The theoretical literature is divided on the efficacy of employment security in adapting quickly and efficiently to new models of labour deployment. One school argues that assurances of employment security offer no incentives for workers to embrace change, thus creating costly rigidities for managers while creating inefficiencies in the distribution of labour resources in the economy as a whole. Further, this school claims, managers facing competition from producers operating without such policy interventions can ill afford their costs. Dore, for example, has argued that with the current world-wide industrial restructuring taking place, industrial capitalist economies can no longer afford to maintain their past social welfare policies, including measures of employment security, if they wish to be competitive with those economies in which such policies are less strong or do not exist at all (Dore 1988).

3. Attrition rates were enhanced by an early retirement program run by the Swedish Labour Market Board (AMS) which paid the salary of workers who retired at sixty for five years, in areas where alternative jobs were scarce. This could follow the collection of unemployment insurance at 90% of previous pay for twenty-one months. Thus, workers could retire three months after their fifty-eighth birthday with very little after-tax financial loss until their sixty-fifth birthday. These policies ended in 1991.

Opposed to this interpretation is the argument that efficient models of labour flexibility can be realized best under conditions of employment security. Security, this position claims, enhances workers' cooperation and eliminates the costs of combating workers' resistance which arise from fears of losing acquired benefits of employment or loss of employment itself (Streeck 1988, 1992a: 33, 42-75; Sorge and Streeck 1988; Block 1990: 82-85; Osterman 1988: 90-92). Streeck, for example, has argued that there are efficiencies to be gained from policies designed to ensure the provision of adequate social welfare, security in employment, adequate wage levels and minimum wage differentials. Such policies, he has claimed, can develop greater trust and commitment between employees and employers. This, in turn, encourages participation in training programs, provide greater flexibility in job assignments and creates conditions for greater effectiveness in product development (Streeck 1988: 419-421). He has further argued that these policies can reduce downward pressures on wages and remove the rationale for the existence of segmented labour markets as competition is shifted away from sectors increasingly dominated by low-wage economies (1988: 422-423). For Streeck, failure to provide for employment security creates the conditions of anomie which in turn frustrate successful adaptive behaviours (1988: 417).

Recently, debates on the merits of these two positions have been most intense among observers in Western European countries where employment security provisions have been more pronounced and where the instabilities of product markets challenge the assumptions on which these policies were created (see for example OECD 1994, Part II: 69-80). In Sweden, those who support the merits of policies which emphasize active labour market policies that enhance employment security argue that failures in labour market adaptability have more to do with failures in the government's fiscal and monetary policies and its slowness in reacting to special needs in labour allocation (Johannesson and Wadensjö 1995: 9; Johannesson 1995: 22-25; see also Korpi 1983). Opposed to this argument is the claim that policies which support employment security remove incentives for the speedy adoption of new models of labour deployment. In addition, they create distortions in the labour market whose costs cannot be sustained during periods of economic volatility and fiscal crises (Lindbeck et al. 1994: 7, 14-15; Blanchflower, Jackman and Saint-Paul 1995: 71-78).

We hope to add clarity to the general debate by providing a description of the specific strategies managers actually use under these two regimes. The issue may not be so much a matter of employment security *per se*, but the manner in which it is incorporated within deployment

schemes.⁴ But until these strategies, as well as the means employed to initiate them, are actually known, little can be said about relative efficiencies.

THE RESEARCH

Data for this paper were gathered as part of a larger project dealing with flexibility and change in the industrial sectors of steel, pulp and paper and telecommunications equipment manufacture in Canada and Sweden. These sectors play major roles in both economies; and in both countries each has been faced with similar competitive pressures. All three sectors in both countries have experienced growth in value of output over the past twenty years, although in the steel industry growth peaked in the mid-1980s, then declined,⁵ while growth in output continued in the pulp and paper sector and increased at a faster annual rate in the telecommunications sector.

Meanwhile, over the same period and right up to the time of the interviews, employment levels in both countries fell dramatically in the steel sector; they fell less precipitously in the pulp and paper sector in both countries; and they fell slightly in the telecommunications sector in Sweden while growing slightly in Canada. In steel, and also in the pulp and paper sector, the principal difference between the two countries over the past twenty years has been the overall pattern of decline in employment levels. In Canada, this was marked by lay-offs followed by short periods of retention or even short spurts of growth, and then lay-offs again. Sweden, by contrast, had relatively steady, even orderly, rates of decline (Smith et al. 1995).

In the telecommunications industry in both countries, output and employment grew from the early 1970s to the mid-1980s after which there was a decline in employment in Sweden, while in Canada employment rates grew slightly but were also highly volatile, particularly at the plant level. This sector has been marked by a high degree of world competition in product innovation and pricing which in turn makes the situation for individual plants highly unstable (Johansson 1990: 86-92; Lynch and Osterman 1989). Contributing further to the instability of individual plants

-
4. Indeed, the debates about the benefits of security may obscure the role that trust and a sense of fairness play in labour-management relations. Trust is in large part a consequence of organizational tradition and management style (see for example, Miller 1992: 216-233). Definitions of what is fair or equitable are partly contingent on such trust but are also rooted in broader institutional configurations (Houseman 1990).
 5. See Masi (1991) for an account of growth in output of specialty steel through the use of advanced technology in Canada.

is the smaller capital investments required in this sector compared with the amounts needed for steel and pulp and paper mills. It is far easier to close down or move operations in the telecommunications industry than in the highly capital-intensive sectors of steel and pulp and paper.

The plant rather than the firm is the focus of this inquiry. This level of industrial organization is at the forefront of any policy changes in the firm. It is the location where new production technology is installed and where the confrontations between labour and management are usually most salient. Managers of plants in large firms are also under pressure from head offices to conform to the dictates of their superiors while dealing with an often anxious, if not suspicious, work force. Local union leaders are under pressure from their membership for employment protection, from management for concessions in wage levels and working conditions, and often from their national headquarters to adhere to more universalistic policies.

In both Canada and Sweden we attempted to select plants representing the range of diversity within each industrial sector as a whole. Thus, we included plants which varied not only in terms of size but also in terms of the size of firms of which they were a part. In general, plants in the steel and pulp and paper sectors were larger than those in the telecommunications sector, with about two-thirds in the former sectors employing 300 or more workers and about two-thirds of the plants in the telecommunications sector employing less than 300. We also attempted to include in our sample variations among plants in their access to relatively small or large labour pools. These selection criteria drew us and our Swedish colleagues to sites throughout the interior of both countries.

In Canada, interviews were conducted in 11 plants in the steel sector, 17 plants in the pulp and paper sector and 16 plants in the telecommunications equipment sector. In Sweden, equivalent interviews were conducted at 10 plants in the steel sector, 10 plants in the pulp and paper sector and 9 plants in the telecommunications sector. During the plant visits we also toured plant facilities and observed plant operations.

In Canada, interviews with representatives of labour—whether union representatives or workers—were not available in three plants in the pulp and paper sector, in two plants in the steel sector and in three plants in the telecommunications sector. In Sweden, union representatives were interviewed in all plants. In Canada, the selection of workers where unions did not exist was made by personnel in the plants' human resources departments.

Interviews were not always carried out on a one-to-one basis. In a number of cases, plant managers in the company of line managers were

interviewed together. Also, in some cases, groups of workers or union officials were interviewed. The average length of time for each interview was two hours. The interviews themselves were focused on the degree to which the plants were undergoing significant changes in production technology and/or organizational innovations, the responses of personnel to these changes and the strategies employed by management in meeting their labour requirements. The data for this study were gathered during the period from the fall of 1991 to the spring of 1993.

STRATEGIES OF INTERNAL LABOUR DEPLOYMENT

Numeric Comparisons

The range of responses from the interviews regarding strategies employed to achieve greater flexibility in the deployment of *retained* labour included regulated layoff-recall schemes,⁶ overtime work, the manipulation of work shifts, redefinitions of job assignments (which in some instances included the creation of work teams), new skills training, cross-skills training (i.e., acquiring multiple job skills), revised management structures (often involving cuts in mid-management personnel), various worker incentive schemes and, in Canada, a few instances of work-sharing programs.

In table 1 we present a summary of the types of deployment strategies plant managers claimed to have used or were in the process of initiating at the time of the interviews. The table itself is designed to provide a referent point for the contextually situated findings discussed later.

As indicated in the table, Canadian managers were far more likely to rely on layoff-recall strategies than were Swedish managers. However, three plants in Canada attempted to maintain their employment levels by taking advantage of work-sharing programs which drew on unemployment funds to support a shortened work week. A larger proportion of Canadian managers, compared to their Swedish counterparts, made use of overtime work to achieve labour deployment flexibility, although the differences were not quite so extreme in the pulp and paper sector. On the other hand, Swedish managers were far more likely than Canadian managers to manipulate work shifts to achieve flexibility.

Efforts to revise formal descriptions of job responsibilities were more likely among plants in Canada than among those in Sweden, but as we

6. We contend that layoff-recall arrangements are part of an internal deployment strategy inasmuch as they are based on labour-management agreements requiring management to rehire laid-off workers following principles of employment seniority.

TABLE 1
Strategies of Internal Labour Deployment by Number of Plants (Percent)

<i>Strategies</i>	<i>Steel</i>		<i>Pulp and Paper</i>		<i>Telecom</i>	
	<i>Canada</i>	<i>Sweden</i>	<i>Canada</i>	<i>Sweden</i>	<i>Canada</i>	<i>Sweden</i>
	<i>11 plants</i>	<i>10 plants</i>	<i>17 plants</i>	<i>10 plants</i>	<i>16 plants</i>	<i>9 plants</i>
Layoff/recall	11 (100)	0 –	17 (100)	2 (20)	7 (44)	1 (11)
Overtime	9 (82)	3 (30)	11 (65)	5 (50)	11 (69)	2 (22)
Shift changes	4 (36)	8 (80)	3 (18)	6 (60)	9 (56)	9 (100)
Work-share	1 (9)	0 –	0 –	0 –	2 (13)	0 –
Redef. of jobs	7 (64)	5 (50)	14 (82)	6 (60)	12 (75)	8 (89)
Work teams	4 (36)	4 (40)	2 (12)	0 –	12 (75)	2 (22)
New skills training	6 (55)	10 (100)	9 (53)	10 (100)	11 (69)	9 (100)
Multi-/cross-skills training	10 (90)	7 (70)	14 (82)	5 (50)	9 (56)	3 (33)
Revised management structures	4 (36)	7 (70)	4 (24)	5 (50)	10 (63)	9 (100)
Worker incentive schemes	5 (45)	10 (100)	14 (82)	9 (90)	14 (88)	5 (56)

will discover, this did not mean that Swedish managers were necessarily more restricted in changing these responsibilities.

Related to revisions of job responsibilities was the creation of work teams. These were most likely to be found, or were in the process of being put into place, in plants in the telecommunications industry in Canada. No cases were found in the Swedish pulp and paper plants but about an equal number of steel plants in the two countries had work teams or were experimenting with them.

New skills training was reported to be in place in *all* of the Swedish plants in all three industries, but this was true in only slightly over half of

the Canadian plants. However, a larger proportion of Canadian respondents reported that multi-skills training programs were in place or were being attempted.

Proportionately more Swedish than Canadian managers reported that revisions in management structures had recently or were presently taking place. Finally, except for the telecommunications industry, proportionately more Swedish than Canadian managers reported that they had ongoing worker incentive schemes, designed to increase production efficiencies.

A few differences among the industries are apparent. Canadian managers of steel and pulp and paper plants were far more likely to use layoff-recall arrangements than those in the telecommunications sector but this was because of the greater number of unionized plants in the steel and pulp and paper sectors. (All but one of the plants in the steel sector were unionized. All of the plants in the pulp and paper sector were unionized. Only 7 of the telecommunications plants were unionized.) Non-unionized plants were more likely to rely on *permanent* layoffs and new hires. Furthermore, new hires were often temporary or contractually limited. Canadian telecommunications managers were more likely to be experimenting with work teams than their national counterparts in the other two industries, and a proportionately greater number of these managers were revising management structures and were experimenting with worker incentive schemes than were managers in the steel and pulp and paper industries. On the other hand, a higher proportion of Canadian managers in the steel and pulp and paper industries than in the telecommunications sector were experimenting with multi-skills training.

Differences among the industries were less pronounced in Sweden although there were a few exceptions. More managers in the telecommunications industry reported changes in job descriptions and revisions of management structures in comparison to managers in the other two industries, while a slightly higher proportion of managers in steel and pulp and paper reported programs of multi-skills training and worker incentive schemes.

These comparisons, both by country and industry, provide only a superficial count of variations in labour deployment. They tell us very little about the context within which they take place, a crucial consideration if the meanings of these strategies are to be understood. Indeed, one of the more striking impressions from our research was the fact that each plant had its own unique characteristics with respect to the nature and style of its management-labour relations and the role which individual personalities played in them. Limitations of space permit only a com-

parison of strategies within the broader contexts of country and industrial sector.

Contextual Comparisons: Country and Sector

Steel in Canada

The steel industry in Canada had been marked by the introduction of new technologies and the expansion of production capacity up to the mid 1980s. But since then, over-capacity and intense world-wide competition, plus competition from steel substitutes, caused management to focus increasingly on producing for specialized markets and to cut back on labour costs (Masi 1991; Livingstone 1993).

The nature of labour market regulations in Canada allow managers to rely heavily on the external labour market both as source for needed labour and as a repository for redundant labour (see for example, Corman 1993). With respect to the deployment of *retained* labour, the most common tactic Canadian managers used in gaining flexibility was by layoffs with recall rights based on seniority. Relatively short-term layoffs are common in the steel industry when mills have to be shut down for maintenance and relining of furnaces, but long-term layoffs caused by changes in market demand and changes in production technology has been a continuing trend. For many employees, layoffs therefore often mean permanent job loss. At the time of interviews, managers in only one plant were attempting to keep its full labour force on the job. In dealing with what they assumed to be a period of relatively short-term slack, they had, in cooperation of the Ministry of Employment and Immigration, instituted a work-sharing program in which employees worked four days a week and collected unemployment insurance on the fifth day.

In cases where there were momentary increases in demand for labour, Canadian managers tended to turn first to overtime work. Managers, to the frustration of union representatives, argued that this was less cumbersome and more efficient than recalling laid-off workers. (One manager was reluctant to recall laid-off workers because of his fear that they would "re-instill negative attitudes" toward plant management). Three plant managers reported that changes in shift scheduling was fairly routine when orders declined; but one plant gradually introduced 12-hour shifts in all its departments as a means to reduce absentee rates.

The search for flexibility in the allocation of job skills meant frequent attempts by managers to alter job responsibilities. But these attempts required extensive negotiations with unions since such changes directly challenged the structure on which seniority, and hence employment security, had been based. On the basis of the Cooperative Wage Survey, con-

ducted just after World War II by the United Steelworkers of America and the largest integrated steel producers in the United States, jobs in the steel industry, including those in Canada, had been classified into an elaborate scheme of skill, responsibility, and mental and physical effort. Seniority and skills acquisition emerged as the principal criteria for mobility through this system (Steiber 1959).

As far back as the 1960s, technological changes had eroded the integrity of this job classification system. In attempting to gain both quantitative and qualitative flexibility, managers in our sample continued in their efforts to change the classification system and, in many cases, to broaden job responsibilities. They have frequently been met by extended, often bitter negotiations with unions who, while recognizing the need to make alterations in the deployment of labour, have argued that equity in work demands must first be ensured and principles of seniority be respected. Meanwhile, managers in four of the steel plants in our sample were attempting to create work teams and to enhance, as managers saw it, greater worker involvement and responsibility in the operations of the plant. At the same time senior managers in these plants were reducing the ranks of middle management while attempting to achieve greater integration and coordination of administrative departments.

Consistent with the strategy of obtaining greater flexibility by drawing upon the skills of labour was the attempt by managers of ten of the eleven steel plants in the sample to train workers in more than one job-specific skill. The intent of these programs was to enable management to deploy workers to "assist" other workers with different skills when required. Typically this involved training production workers in elementary machine maintenance skills. In only six of the eleven plants in this sector were programs of completely *new* skills training in place. These programs invariably accompanied the adoption of new technology.

Steel in Sweden

The same pressures confronting the steel industry in Canada were also present in Sweden. However, responses to these pressures were not quite the same as those in Canada. First, strategies involving layoffs and rehires were seldom used. Government labour policies made the use of such tactics cumbersome and slow to implement. Further, past years of labour attrition, stimulated by government policies which encouraged early retirements, had already reduced employment levels in this sector. As one Swedish manager put it: "We try to keep all of our employees despite declining orders. Our present work force is downsized as much as is possible, so lay offs are not a realistic solution to our problems. We can

only do marginal personnel reductions if we want to maintain our present production capacity.”

Another manager reported that flexibility was best achieved by varying the nature and number of shifts rather than altering the number of employees. Indeed, most Swedish respondents, both managers and union officials, were of the opinion that layoffs and recalls resulted in inefficient uncertainties and did not serve the long-term interests of the plants.

Proportionately fewer Swedish than Canadian managers were engaged in changing *formally defined* job responsibilities and forming work teams. But this did not mean that flexibility in job assignments was not present; indeed, it appeared to be greater. Nearly all of the plants were experiencing at least some reorganization, most typically by broadening job responsibilities and eliminating many middle management functions. Formal job definitions did not have the same meaning attached to them as the job classifications schemes in Canada. They were important for establishing general wage levels, but were less important in specifying actual job responsibilities and did not play a major role in determining tenure of employment. Thus, Swedish managers appeared to be able to move labour among different job assignments more easily and more quickly than their Canadian counterparts.

Union representatives in Sweden held to the view that job descriptions were not to be taken literally as a set of inviolate obligations but rather were to be seen as useful in setting basic wage rates and as a means to clarify job enlargement and job rotation schemes. Indeed, unions in general supported flexible job assignments. In one case, union officials were *opposed* to any moves toward rigid job definitions. They worried that such rigidity would allow managers to circumvent seniority rules if managers insisted that people in the different jobs possessed skills that precluded replacement by other employees. In another case, management, in opposition to the union, favoured more detailed job descriptions as a means to promote greater wage differentials and hopefully increase work incentives. Clearly the approaches toward increasing flexibility and the arguments for them were quite different from those in Canada, revealing the influence of different sets of constraints on both managers and union representatives in the interpretations and importance they attach to job classification systems.

In all of the Swedish steel mills, new skills training was an important component of labour deployment. Indeed, new skills training for current employees seemed to be more prevalent among Swedish plants than among Canadian plants. But this difference appears to be due to the less confining nature of job allocation in Sweden in comparison to Canada.

Swedish steel workers, in contrast to Canadian workers, can be more easily moved about in their plants and, as a result, receive more skills training. In addition, skills training across a number of designated job classifications was apparent in seven of the ten steel plants and, as in Canada, this typically meant training in both production and maintenance skills. However, in some cases union leaders in Sweden seemed to be more supportive of these skills training programs than workers themselves. One union representative noted that "there has traditionally existed a craft conservatism among operators that has made them reluctant to perform maintenance tasks on their machines. Through the [training] program, "Licensed Steel Worker", we have tried to break through this barrier and get them to see the relationships between many different activities."

A final mechanism for manipulating labour output was through incentive schemes. The general policy of minimizing variations in wage rates among plants in specific industrial sectors would suggest a limited use of wage-linked incentive schemes in Sweden. Normally the pay system consists of fixed monthly salaries. But in fact, these were usually supplemented with production bonuses, and these and other incentives were very much in place among the plants in our sample (see also Åberg 1988). Indeed, disputes over wage incentive systems were the most common issue in contention between management and labour.

Two plants had a supplemental piece-rate system of pay, but in both cases the management *and* the local unions wanted to replace it with a reward system for workers who had acquired multiple skills. But workers themselves were strongly opposed to the proposed plan in one of the plants. In seven of the ten steel mills, collective production bonuses were added to a fixed salary system which included some variation by broad job classifications. Among these seven plants, four also offered premiums to workers for acquiring multiple skills, and another three plants offered seniority supplements to their basic wages. Viewed in the context of relatively long-standing policies aimed at maintaining wage solidarity, it comes as no surprise to learn that incentive schemes were far more contentious issues in Sweden than in Canada.

Pulp and Paper in Canada

The pulp and paper sector in Canada had gone through a period of cutbacks in employment levels although these were not as severe as those in the steel sector. Managers in twelve of the seventeen plants in the sample were continuing to reduce their employment levels through attrition and early retirement. Similar to managers in the Canadian steel sector, managers in all of the Canadian pulp and paper plants regularly used lay-

off and recall strategies to attain flexibility in their employment of workers. Managers routinely laid off employees when plants were shut down for maintenance work; but when faced with what were perceived to be momentary periods of increased demand, all of the managers preferred to make use of overtime rather than hire additional workers. Two of the plants in this sector had put 12-hour shifts in place arguing, as those who had done the same thing in the steel sector, that this reduced absentee rates.

As in the steel sector, efforts to alter job definitions involved extended negotiations with unions, since they touched on the sensitive issues of seniority, acquired rights and wage levels. Job jurisdictions and their role in creating greater flexibility in the deployment of labour was an especially contentious issue for both management and unions in this sector. In a number of cases, managers mentioned that they had, or were in the process of considering the creation of work teams as a means to broaden work tasks. But in only two plants was there any evidence that they had given this serious thought. The process of getting even modest concessions from unions regarding job assistance or expansion of job responsibilities was sufficiently difficult to deter most managers from planning for the development of full-scale work teams.

In the meantime, managers in this sector were engaged in introducing a considerable amount of technological change in their plants. These included the increasing use of computerized control functions, new processes of pulp extraction and the installation of pollution control devices. These changes had been largely responsible for new skills training in nine of the seventeen plants in our sample. In addition, managers in fourteen of the seventeen plants had "cross-skills" training programs in place and, like similar programs in the steel sector, these programs typically involved training production workers in the skills of machine maintenance.

Incentive schemes were in place in fourteen mills. In four of these mills, the collective agreement with the unions included a 50-cent an hour bonus for individuals "assisting" each other in different jobs. (However, human resource managers were somewhat ambivalent about whether this had in fact delivered the degree of extra flexibility that had been promised or that would make the 50-cent an hour concession worthwhile.) Management in three plants offered bonuses for suggestions if they had some significance in saving costs of production. Two plants offered profit-sharing plans and one plant was in the process of adopting a similar plan. In the remaining plants, management provided suggestion boxes but these did not seem to be vigorously promoted. These schemes played a relatively minor role in the deployment strategies of managers in

this sector. Much more prominent were the use of layoff-recall, overtime work and the attempt to expand job responsibilities.

Pulp and Paper Plants in Sweden

Pulp and paper plants in Sweden have a history of labour force reductions similar to their counterparts in the steel sector. Most of these reductions had been accomplished in the late 1980s by attrition which was further encouraged by early retirement incentives. However, four plants had also laid off workers permanently and in two of these plants the labour relations climate was decidedly bitter. Despite the four cases of permanent lay-offs, trends in employment levels had not fluctuated as severely as those in Canadian plants. Like their counterparts in the steel sector, Swedish managers of pulp and paper mills have resisted hiring additional employees during periods of growth and have retained their employees during cyclical downturns. During momentary increased demands, they tended to alter shifts of their existing work force rather than use individually assigned overtime.

In six of the ten mills in this sample, managers were engaged in revising job responsibilities. Swedish union officials appeared to support these programs. Some managers expressed annoyance about seniority provisions in the Job Security Law (LAS), but these provisions appeared to have very little effect in their ability to make these alterations even within existing systems of formal job definitions. However, despite the benign stance taken by union leaders toward these strategies, we encountered evidence that individual workers were far more critical of them.

In addition to revising the deployment of their work force, managers in five of the pulp and paper mills were in the process of reconfiguring management functions. This entailed attempts to reduce levels of management hierarchy, to change the basis of administrative units and to create greater communication and coordination among them.

With respect to skills training, managers in all of the plants pointed out that investments in new technology required training in new skills. However, the extensiveness of skills training appeared to be due as well to the relative ease in reconfiguring jobs. Further, similar to our findings in the steel sector, since skills are defined in large part by the nature of the job definitions, the fact that cross-skills training was less frequently mentioned in comparison to Canadian managers, was likely due to the less rigid nature of job classifications in Swedish plants.

Also like their counterparts in the steel sector, managers were not adverse to offering financial incentives to workers for acquiring additional skills or for improvements in productivity. Managers in two plants reported

that they were planning award systems based on individual, rather than group merit, despite strong union objections that this would violate the principles of salary equity.

Telecommunications in Canada

The manufacture of telecommunications equipment, which includes "end user products" such as telephones, cellular phones, and pagers, as well transmission equipment such as electronic switches and related devices, cable and fibre optics and semi-conductors, represents a radically different industry in comparison to steel and pulp and paper. Production here has to do with minute assembly rather than process production. Production technology can be highly sophisticated although investments in it are lower than those required in the steel and pulp and paper sectors. An additional difference in this industry is that women make up a significant proportion of the labour force. With the exception of two cable producing plants, the proportion of women employees ranged from 40% to 60% of production workers in single plants.⁷ Finally, it should be pointed out that only seven of the sixteen plants were unionized and eight plants were part of one large firm.

While aggregate employment in the telecommunications industry has not declined as drastically as employment in the other two sectors, this sector in Canada is marked by high volatility in employment at the *plant level* and in survival rates of plants themselves. During the course of our interviews, managers in two plants were doubtful about their continued existence, yet shortly after, one was thriving as a result of a buy-out while the other continued to hope for a buyer. The future seemed highly uncertain for another two plants due to uncertainty in their product markets. One of these plants had adopted advanced production technology shortly before our interview. Another plant was in the stages of recovery as a result of new product innovations but the future of an additional plant appeared to be dependent on whether it could reach an agreement with its union to reduce labour costs and thus win in the competition for expanded production with its non-unionized rival plant within the same firm.⁸ One of the two cable plants was in the process of terminating production but its manager hoped it would win the right from its head office to produce other products. Since our interviews, it has shut down and the

7. These proportions are declining in areas where managers have access to technical college graduates, almost all of whom are young males. Identified as "engineering technicians", they are often hired on a contractual basis at entry-level assembly jobs. Managers believe these young employees are more versatile.

8. Since the time of the interview, the failure of management to reach an agreement with the union over the use of overtime resulted in the removal of plant operations to the non-union plant. Eventually, the entire plant terminated operations.

second cable plant has been sold to another firm. Nine of the sixteen plants in the sample were part of a larger firm.

In dealing with their turbulent environment, Canadian managers of plants in this sector tended to rely increasingly on overtime work and contingent labour—part-time labour or labour hired on fixed-term contracts—while maintaining or even reducing their full-time labour force.⁹ One manager explained his reasons for making greater use of overtime in the following terms: "Overtime gives us more flexibility than layoff-recall. To bring people back you have to post positions but then if that position is filled internally another vacancy is created further down the line. It makes it hard to fill positions quickly."

Three non-union plants in this sector were planning to incorporate, on a *permanent* basis, a two-tiered system involving a core of permanent employees supplemented by workers hired on short-term contracts.¹⁰ Two of these plants had initiated a plan to hire *all* workers on a limited contractual basis, offering those who performed well the possibility of permanent employment.¹¹ Finally, in dealing with decreased demand, two plants used a "work-share" program, similar to the case cited in the Canadian steel sector.

Unions varied in their responses to these strategies with small localized unions being more amenable to them than unions tied to the national union, the Canadian Automobile Workers. From the point of view of one representative of the national union affiliate, which was opposing the increased use of overtime, "there is a conscious agenda here to ignore the union. It may not be management's intent to destroy the union but they sure try to work around it."

Along with changing administrative structures, most plant managers in our sample were in the process of reorganizing jobs on the shop floor. This was typically a matter of broadening job responsibilities while developing work teams or at least establishing closer interdependency among

9. Contracted term employment usually meant employment for three months with the possibility to terminate employment at any time during that period. Employment beyond three months, in most instances, would require management to pay fringe benefits. (For an overview of temporary workers in general, see Mangum, Mayall and Nelson 1985).

10. One manager was so dependent on a pool of previously laid-off workers for his contract hires that he expressed some fears that if the rumoured plans of another high technology company to locate a plant nearby were to be realized, his source of skilled workers would be eliminated and his plans for achieving reductions in labour costs would be seriously jeopardized.

11. See Belous (1989) for speculations regarding the consequences of the increased use of such "contingent workers".

workers of different skills. The frequent use of "just-in-time" and "Kanban" systems of inventory control enhanced this interdependence.¹² Unions' responses to these changes can be described as cautious "permission" rather than outright opposition. While not denying the need to alter job designations, unions sought to preserve seniority principles and equity in the relationship between job demands and wages.

Most of the managers of plants manufacturing or assembling component parts, trained new recruits in the skills of hand soldering, and in testing and monitoring quality levels. But new skills training was directed toward operating computer-controlled systems and, in some instances, maintaining and servicing automated production equipment. Associated with these new skills was training workers to approach their jobs in a more integrative fashion rather than focusing on isolated specialities. This was associated with restructuring the organization of the plant with fewer formal divisions and reduced hierarchies of management. Associated with this approach was training in "soft skills"; social skills designed to foster greater ease of communication among workers in diverse work settings. But equally important in this training was an emphasis on cooperation with management and among co-workers as well as encouragement in taking initiatives in improving the work process. As one manager put it,

Employees were resistant to the new organization at first. They were suspicious, scared. We had to tear down the barriers.... After six months there was an increase in morale; quality was better, the accident rate was down. The issue is really a learning curve problem. It also involves taking on a sense of 'ownership' especially when things go bad. It's a responsibility issue.

The nature of the "soft skills" training programs was highly varied, ranging from classroom instruction and on-site training to viewing video presentations and engaging in discussion sessions.

Most of the plants in the Canadian telecommunications sector had worker incentive schemes. Managers in five plants had shifted, or were in

12. The literature on work teams tends to convey the idea that these are especially suitable where work demands are highly variable (see for example Katzenbach and Smith 1993; Parker 1994). This may be true for highly skilled personnel such as engineers (Kunda 1992), but our impression, based on our findings in the Canadian telecommunications sector, indicate that work teams are most likely to be found on those production lines which are well established and tasks are well defined. As one worker in a telecommunications plant pointed out, and as a manager in another plant verified, work teams seem to perform best when production objectives are clearly specified and work roles are clearly defined and fairly routine. When there are new products to be assembled or where there are changes in production equipment or in the layout of assembly lines, management is more likely to revert to traditional lines of authority and work allocation. For critical assessments of work teams, see Rinehart (1986) and Barker (1993).

the process of shifting from paying workers an hourly wage to paying them a set salary, adjusted according to "merit".¹³ These plants added performance bonuses or merit adjustments to the basic salary model. In a unionized plant, managers were organizing work teams and were attempting to move toward a salaried model. But this had provoked intense conflict with the union as increased use of overtime accompanied these changes. Three plants had a profit-share plan, one with disastrous consequences as profits had recently dropped. Nine plants offered financial rewards for useful suggestions. These ranged from 25 to 40 percent of the savings made to the company and in one case included merchandise.¹⁴

What is especially noteworthy in this sector in contrast to the steel and pulp and paper sectors, is the greater incidence of experimentation with a greater variety of labour deployment strategies. There appeared to be a greater sense of urgency in these plants, due undoubtedly to the greater volatility in product markets. But the nature of labour requirements likely contributed as well to more experimentation. While managers, union representatives and workers themselves commented on the increased demand for more highly skilled workers, most plants still depended on a fairly large contingent of relatively low skilled workers. Thus managers, particularly those in non-unionized plants, could rely on the external labour market in their use of part-time and contract labour while experimenting with different strategies of labour deployment within their plants. In a few cases, the availability of local pools of recently unemployed but more highly skilled labour enabled employers to hire on a contingency basis at this level.

Telecommunications in Sweden

Similar to plants in Canada, this sector is marked by the presence of one firm which dominates the industry. Six of the eight plants were a part of it. Also, like Canada, this sector differed from the other two sectors by its greater volatility in its product markets. However, compared to the Canadian plants, there were fewer gyrations in employment levels and plant fortunes. These plants had recently reduced their labour forces through voluntary retirement plans and attrition and, in a few cases, outright layoffs. Like Canada, a higher proportion of the production workers were women, at least 60 percent, compared to the other two sectors.

13. Piore and Sabel (1984) and Osterman (1988) are among those who have argued that flexible models of labour deployment require a salaried wage system since job demarcations become obscure and only outcomes, rather than processes, in the creation of goods or services can be evaluated.

14. In addition to economic incentives, most of the plants in all three sectors in Canada publicized, in company newspapers or on bulletin boards, the outstanding contributions of individuals or groups within the plant.

Like Swedish managers in the other two industries, Swedish managers in the telecommunications plants appeared to have an easier time redeploying their labour through changes in job responsibilities in contrast to managers of unionized plants in Canada. But because of the recent adoption of significantly new technology which replaced mechanical assembly operations with microelectric, often computer-based multi-purpose machines, organizational changes and hence job responsibilities were undergoing more radical change than in the other two sectors. A hint of this difference is indicated in table 1. A higher proportion of telecommunications plants in Sweden were undergoing significant changes in the definitions of job responsibilities—higher than other plants in our survey, Canadian or Swedish. New skills training was evident in all of the sampled plants in this sector, but training for expanded skills, or "cross-skills" training was occurring in only three of the plants. Further, as one manager put it, part of the training included an emphasis on changing the perspectives of employees from "commitment to narrow specialization to a more integrative approach". Both managers and union representatives placed a high degree of importance on this orientation toward work roles.

These changes were not without some resistance among workers. Respondents representing production workers' unions agreed with managers that older workers were more anxious, and thus more resistant to changing their job specializations. One union representative explained this in the following manner:

There is widespread fear among assemblers of these changes. This is especially true of the female employees over the age of 35 who have little education. Many of these women were recruited during the expansive years in the 1980s. In general, they have an instrumental attitude towards their jobs.... They have not shown any interest in developing their jobs and have no great desire to acquire further training within the company.

Plants in the telecommunications sector in both Sweden and Canada were more likely to be involved in changing management structures compared to plants in the other two sectors, and more Swedish than Canadian telecommunication plants were engaged in these changes. Swedish unions representing production workers were supportive of these changes and argued that they were necessary in order to remain competitive. Unions representing white-collar workers were, not surprisingly, quite opposed.

Along with these structural changes, pay systems appeared to be more varied in comparison to the other two sectors. In five of the plants, managers supplemented basic salary rates with individual merit and/or piece-rate bonuses. Managers also offered collective bonuses in four of

the plants in this sector. Unions were not adverse to incentive plans that rewarded skill enhancements nor were they opposed to monetary incentives given to groups of workers. They were, however, opposed to merit awards given to individuals.

CONCLUSIONS

Every contractual agreement for employment implies at least some degree of security as long as the terms of employment are met. Without these terms, management could make no claims to legitimacy and would thus be deprived of a reliable labour force. It is apparent from our findings that the *terms* of employment security (or insecurity) and what labour interprets as "legitimate" demands from management is the key issue in any debate over the role of security in attaining flexibility in the deployment of labour. Canadian managers, with their greater access to external labour markets, may appear to have greater latitude in deploying their workers than their Swedish counterparts. At the same time, however, they seemed to be faced with greater problems of trust and legitimacy in the labour contract than were Swedish managers.¹⁵

In unionized plants in Canada, especially in the steel and pulp and paper sectors, efforts to achieve greater labour deployment flexibility within the plant required extensive negotiations over changes in formal definitions of job requirements, hence the greater numerical count of these negotiations relative to Swedish plants. Collective agreements in Canada tend to be highly detailed in specifying the rights and obligations of both parties and the definitions and structures of jobs play a central role in these specifications.

We found that in all three sectors in Canada, union representatives were extremely concerned about workforce reductions, the increased use of overtime, the use of subcontracting, the use of contingency workers and the erosion of seniority systems in the midst of changes in job

15. Downie and Coates (1993) report in their survey of senior human resource and industrial relations officers in twelve major corporations in Canada, that most of the respondents in their sample "relied predominantly on the blunt instrument of downsizing and the introduction of new technology rather than on innovations in the workplace" and that the emphasis on changes in management style tends to be "more rhetoric than substance" (v). The authors further note that despite the increased emphasis placed on improving communications with employees, there is little evidence that tangible supports for this have been sustained. Thus in the midst of "downsizing", worker morale is decreasing despite the proclaimed value placed on human resources. (One manager of a telecommunications plant in our sample did not support this rhetoric. He believed that his mostly immigrant, female labour force responded best to traditional authoritarian management.)

classifications. At the same time, they were well aware that the assumptions upon which they had built their strategic agreements with management were being undermined by changes beyond their control. Union representatives were conscious of the growing sense of vulnerability among individual workers, but they often expressed their frustration at their inability to marshal a more united front in confronting what appeared to be an era of aggressive and intrusive management strategies. They lamented the inadequacy of training programmes for their members. Ironically, many managers complained of the lack of skills in the external labour market, and four managers in the telecommunications sector were actively involved in designing skills-training courses in local junior colleges.

In Sweden, by contrast, managers operated under conditions that imposed more restrictions on firing and hiring labour, but at the same time they faced fewer limitations in changing job assignments within the formal structure of job definitions. Union representatives in Sweden appeared to be more supportive of deployment changes than were Canadian union representatives and, in some cases, than were Swedish managers and even workers themselves. (However, it is difficult to know how much importance to place on our discovery of a few instances of worker dissent from their union's position. It is possible to argue that the lack of institutional support to act on this dissent keeps these "voices" relatively ineffective [Panitch 1986]).

Swedish managers may have had some advantages of legitimacy accruing from a more stable labour force, but they were also faced with more restrictions in changing the composition of their labour. Restrictions on access to external labour markets meant that manipulating shifts, changing management structures and new skills training were the more prominent forms of deployment strategies. (Both management and union representatives frequently lamented the difficulties in training older workers.) In the steel and pulp and paper sectors, worker incentive schemes based on wage differentials were more prevalent in Sweden than in Canada, but they were also particularly contentious issues in labour-management relations.

While the different institutional settings, and to some extent, the different industrial sectors, altered the issues in contention between management and labour, there was one point on which both Canadian and Swedish union representatives agreed. That was the lack of influence unions had in the introduction and accommodation of technological change. Canadian unionists were quite bitter about what they regarded as managers' definitional side-stepping in the introduction of technological change—defining such change as merely "upgrading" rather than sig-

nificantly different.¹⁶ Swedish union representatives expressed considerable criticism of the Swedish Co-Determination Law and its failure to give unionists sufficient voice in the introduction of technological change. As one union representative put it: "Before we had the Co-Determination Law, management would simply run over us. Now they have to honk first." Streeck once argued that security in external labour markets makes workers less fearful of accepting changes within internal labour markets (Streeck 1988: 416). That may be true, but "less fearful" may not be synonymous with contentment.

■ REFERENCES

- ÅBERG, Rune. 1988. "Economic Work Incentives and Labour Market Efficiency in Sweden." *Industrial Change and Labour Adjustment in Sweden and Canada*. Gregg M. Olsen, ed. Toronto: Garamond Press, 70-86.
- ABRAHAM, Katharine G. 1990a. "Introduction." *New Developments in the Labor Market: Toward a New Institutional Paradigm*. Katharine G. Abraham and Robert B. McKersie, eds. Cambridge, Mass.: The MIT Press, 1-18.
- ABRAHAM, Katharine G. 1990b. "Restructuring the Employment Relationship: The Growth of Market-Mediated Work Arrangements." *New Developments in the Labor Market: Toward a New Institutional Paradigm*. Katharine G. Abraham and Robert B. McKersie, eds. Cambridge, Mass.: The MIT Press, 85-119.
- ABRAHAM, Katharine G. and Susan N. HOUSEMAN. 1994. "Does Employment Protection Inhibit Labor Market Flexibility? Lessons from Germany, France, and Belgium." *Social Protection versus Economic Flexibility: Is There a Trade-Off?* Rebecca M. Blank, ed. Chicago: The University of Chicago Press, 59-94.
- BARKER, James R. 1993. "Tightening the Iron Cage: Concertive Control in Self-Managing Teams." *Administrative Science Quarterly*, Vol. 38, 408-437.
- BELOUS, Richard S. 1989. "The Telecommunications Industry, Contingent Workers, and the House of Labor." *Telematics and Informatics*, Vol. 6, No. 2, 81-86.

16. In most of the collective agreements in the Canadian plants there is a clause regarding the displacement of employees because of technological change. This usually applies where more than a given number, ten for example, are affected and specifies the nature of notification, the rates of pay to be maintained, job transfer policies and training to be provided. However, there is frequently no common agreement on what constitutes significant technological change and this ambiguity tends to serve managers' interests. For an informed statement of a union's concerns about the introduction of new technology and the deployment of labour in the telecommunications sector, see Robertson and Wareham (1989) and Wells (1986). Parker and Slaughter (1988) provide an American union perspective on technology and new models of labour deployment.

- BERGER, Johannes. 1990. "Market and State in Advanced Capitalist Societies." *Current Sociology*, Vol. 38, No. 2/3, 103-132.
- BLANCHFLOWER, David G., Richard JACKMAN and Gilles SAINT-PAUL. 1995. "Some Reflections on Swedish Labour Market Policy." Stockholm: Report to the Committee on Swedish Labour Market Policy. Swedish Government Official Reports, 39, Ministry of Labour.
- BLANK, Rebecca M. and Richard B. FREEMAN. 1994. "Evaluating the Connection Between Social Protection and Economic Flexibility." *Social Protection versus Economic Flexibility: Is There a Trade-Off?* Rebecca M. Blank, ed. Chicago: The University of Chicago Press, 21-42.
- BLOCK, Fred. 1990. *Postindustrial Possibilities: A Critique of Economic Discourse*. Berkeley: University of California Press.
- BOYER, Robert. 1996. "State and Market: A New Engagement for the Twenty-First Century?" *States Against Markets: The Limits of Globalization*. Robert Boyer and Daniel Drache, eds. London: Routledge.
- COLCLOUGH, Glenna and Charles M. TOLBERT, II. 1992. *Work in the Fast Lane: Flexibility, Divisions of Labor, and Inequality in High-Tech Industries*. Albany: State University of New York Press.
- CORMAN, June. 1993. "Dissension within the Ranks: The Struggle over Employment Practices." *Recasting Steel Labour: The Stelco Story*. June Corman, Meg Luxton, D.W. Livingstone and Wally Seccombe, eds. Halifax, N.S.: Fernwood Pub, 55-74.
- DORE, Ronald. 1988. "Rigidities in the Labour Market." *Government and Opposition*, Vol. 23, No. 4, 393-412.
- DOWNIE, Bryan and Mary Lou COATES. 1993. "The Changing Face of Industrial Relations and Human Resource Management." Kingston, Ont.: Industrial Relations Centre, Queens University.
- FLANAGAN, Robert J., David W. SOSKICE and Lloyd ULMAN. 1983. *Unionism, Economic Stabilization, and Incomes Policies: European Experience*. Washington: Brookings Institution.
- GINSBURG, Helen. 1983. *Full Employment and Public Policy: The United States and Sweden*. Lexington, Mass.: D.C. Heath & Co.
- GLUTCHES, Jocelyn F. 1985. *Employment Security in Action*. Ithaca, N.Y.: Pergamon Press.
- HOUSEMAN, Susan N. 1990. "The Equity and Efficiency of Job Security: Contrasting Perspectives on Collective Dismissal Laws in Western Europe." *New Developments in the Labor Market: Toward a New Institutional Paradigm*. Katharine G. Abraham and Robert B. McKersie, eds. Cambridge, Mass.: The MIT Press, 185-210.
- JANGENAS, Bo. 1985. *The Swedish Approach to Labour Market Policy*. Stockholm: The Swedish Institute.
- JESSOP, Bob. 1994. "Post-Fordism and the State." *Post-Fordism: A Reader*. Ash Kumar, ed. Oxford: Blackwell, 251-279.

- JESSOP, Bob. 1995. "The Regulation Approach, Governance and Post Fordism: Alternative Perspectives on Economic and Political Change?" *Economy and Society*, Vol. 24, No. 3, 307-333.
- JOHANNESSON, Jan. 1995. "Labour Market Policy as an Economic-Political Instrument." *Labour Market Policy at the Crossroads*. Jan Johannesson and Eskil Wadensjö, eds. Stockholm: Ministry of Labour 15-27.
- JOHANNESSON, Jan and Eskil WADENSJÖ. 1995. "Labour Market Policy on Unemployment." *Labour Market Policy at the Crossroads*. Jan Johannesson and Eskil Wadensjö, eds. Stockholm: Ministry of Labour, 9-14.
- JOHANSSON, Leif. 1990. "Structural Change in Canada and Sweden: A Look at the Evolution in Three Industries." Working paper for the research project "Labour Market Policy and Structural Change: A Comparative Study of Canada and Sweden." Umea: Umea Universitet.
- KATZENBACH, Jon and Douglas SMITH. 1993. *The Wisdom of Teams*. Boston: Harvard Business School.
- KELLEY, Maryellen R. 1990. "New Process Technology, Job Design, and Work Organization: A Contingency Model." *American Sociological Review*, Vol. 55, 191-208.
- KORPI, Walter. 1980. "Social Policy and Distributional Conflict in the Capitalist Democracies: A Preliminary Comparative Framework." *West European Politics*, Vol. 3, 296-315.
- KORPI, Walter. 1983. *The Working Class in Welfare Capitalism: Work, Unions and Politics in Sweden*. London: Routledge, Kegan Paul.
- KUMAR, Pradeep. 1993. *Uniformity to Divergence*. Kingston, Ont.: IRC Press.
- KUNDA, Gideon. 1992. *Manufacturing Culture*. Philadelphia: Temple University Press.
- LINDBECK, Assar, Per MOLANDER, Torsten PERSSON, Olof PETERSSON, Agnar SANDMO, Birgita SWEDENBORG and Niels TYGESEN. 1994. *Turning Sweden Around*. Cambridge, Mass.: The MIT Press.
- LIVINGSTON, D. W. 1993. "Working at Stelco: 'Re-Tayloring' Production Relations in the Eighties." *Recasting Steel Labour*. June Corman, Meg Luxton, D. W. Livingston, Wally Seccombe, eds. Halifax: Fernwood Publishing.
- LYNCH, Lisa M. and Paul OSTERMAN. 1989. "Technological Innovation and Employment in Telecommunications." *Industrial Relations*, Vol. 28, 188-205.
- MANGUM, Garth, Donald MAYALL and Kristin NELSON. 1985. "The Temporary Help Industry: A Response to the Dual Internal Labor Market." *Industrial and Labor Relations Review*, Vol. 38, 599-611.
- MARTIN, Andrew. 1984. "The Shaping of the Swedish Model." *Unions and Economic Crisis: Britain, West Germany, and Sweden*. Peter Gourevitch et al., eds. Boston: Allen and Unwin, 190-359.

- MASI, Anthony. 1991. "Structural Adjustment and Technological Change in the Canadian Steel Industry, 1970-1986." *The New Era of Global Competition: State Policy and Market Power*. Daniel Drache and Meric S. Gertler, eds. Montreal: McGill-Queens University Press, 181-205.
- MILLER, Gary. 1992. *Managerial Dilemmas: The Political Economy of Hierarchy*. Cambridge: Cambridge University Press.
- MUSZYNSKI, Leon. 1985. "The Politics of Labour Market Policy." *The Politics of Economic Policy*. G. Bruce Doern, research coordinator. Toronto: University of Toronto Press in cooperation with the Royal Commission on the Economic Union and Development Prospects for Canada and the Canadian Government Publishing Centre, Supply and Services Canada, 251-305.
- ORGANISATION FOR ECONOMIC COOPERATION AND DEVELOPMENT (OECD). 1994. *The OECD Jobs Study: Evidence and Explanations, Part II-The Adjustment Potential of the Labour Market*. Paris: OECD.
- OSTERMAN, Paul. 1988. *Employment Futures: Reorganization, Dislocation and Public Policy*. New York: Oxford University Press.
- PANITCH, Leo. 1986. "The Tripartite Experience." *The State and Economic Interests*. Keith Banting, research coordinator. Toronto: University of Toronto Press, 37-120.
- PARKER, Glen. 1994. *Cross Functional Teams: Working with Allies, Enemies and Other Strangers*. San Francisco: Jossey-Bass.
- PARKER, Mike and Jane SLAUGHTER. 1988. *Choosing Sides: Unions and the Team Concept*. Detroit, Mich.: Labor Education and Research Project.
- PECK, Jamie. 1996. *Work Place: The Social Regulation of Labor Markets*. New York: The Guilford Press.
- PIORE, Michael and Charles SABEL. 1984. *The Second Industrial Divide: Possibilities for Prosperity*. New York: Basic Books.
- PIORE, Michael. 1986. "Perspectives on Labor Market Flexibility." *Industrial Relations*, Vol. 25, No. 2, 146-166.
- RINEHART, James. 1986. "Improving the Quality of Working Life through Job Redesign: Work Humanization or Work Rationalization?" *Canadian Review of Sociology and Anthropology*, Vol. 23, 507-530.
- ROBERTSON, David and Jeff WAREHAM. 1989. *Changing Technology and Work: Northern Telecom*. Willowdale, Ont.: CAW Technology Project.
- SCHETTKAT, Ronald. 1992. *The Labor Market Dynamics of Economic Restructuring: The United States and Germany in Transition*. New York: Praeger.
- SMITH, Michael, Anthony MASI, Axel VAN DEN BERG and Joseph SMUCKER. 1995. "External Flexibility in Sweden and Canada: A Three Industry Comparison." *Work, Employment and Society*, Vol. 9, 689-718.

- SORGE, Arndt and Wolfgang STREECK. 1988. "Industrial Relations and Technical Change: The Case for an Extended Perspective." *New Technology and Industrial Relations*. Richard Hyman and Wolfgang Streeck, eds. Oxford: Basil Blackwell, 19-47.
- STREECK, Wolfgang. 1987. "The Uncertainties of Management in the Management of Uncertainty: Employers, Labor Relations and Industrial Adjustment in the 1980s." *Work, Employment and Society*, Vol. 1, No. 3, 281-308.
- STREECK, Wolfgang. 1988. "Comment on Ronald Dore, 'Rigidities in the Labour Market.'" *Government and Opposition*, Vol. 23, No. 4, 413-423.
- STREECK, Wolfgang. 1992a. *Social Institutions and Economic Performance*. Newbury Park, Calif.: Sage Publications.
- STREECK, Wolfgang. 1992b. "Flexibility and Equity: A European Example." *European and American Labour Markets: Different Models and Different Results*. R. S. Belous, R. S. Hartley and K. L. McClenahan, eds. Washington: National Planning Association, 72-76.
- TICKELL, Adam and Jamie A. PECK. 1995. "Social Regulation after Fordism: Regulation Theory, Neo-Liberalism and the Global-Local Nexus." *Economy and Society*, Vol. 24, No. 3, 357-386.
- TOMANEY, John. 1994. "A New Paradigm of Work Organization and Technology?" *Post-Fordism: A Reader*. Ash Kumar, ed. Oxford: Blackwell, 157-194.
- VAN DEN BERG, Axel and Joseph SMUCKER. 1992. "Labor Markets and Government Interventions: A Comparison of Canadian and Swedish Labor Market Policies." *International Journal of Contemporary Sociology*, Vol. 29, 9-45.
- WELLS, Don. 1986. *Soft Sell: "Quality of Working Life" Programs and the Productivity Race*. Ottawa: The Canadian Centre for Policy Alternatives.

RÉSUMÉ

L'affectation des travailleurs dans les usines canadiennes et suédoises : comparaison de trois industries

La présente étude compare les stratégies des gestionnaires d'usines canadiennes et suédoises dans trois secteurs industriels (l'acier, les pâtes et papiers et les télécommunications) relativement à l'affectation des travailleurs. L'hypothèse de départ établit que les gestionnaires croient pouvoir accroître la production dans la mesure où ils optimisent la flexibilité de leurs exigences à l'égard des travailleurs et dans leur utilisation. L'argumen-

tation en cette matière porte sur l'incidence de la sécurité d'emploi et de la qualité des relations industrielles dans la réalisation de cet objectif.

Au Canada, les gestionnaires d'usines travaillent dans un contexte institutionnalisé qui tend à leur procurer un accès relativement facile au marché du travail extérieur, ce qui limite la sécurité d'emploi. En Suède, en accordant plus de sécurité d'emploi aux travailleurs, la législation a imposé de plus grandes limites à la capacité des gestionnaires de faire appel au marché du travail extérieur. La présente étude évalue les effets de ces deux mesures institutionnelles différentes sur les stratégies des gestionnaires en matière d'affectation de leur effectif.

Les stratégies d'affectation de la main-d'œuvre n'ont pas été les mêmes dans les trois secteurs industriels. Dans le secteur des télécommunications, plus que dans les deux autres, les gestionnaires canadiens ont été portés à innover au plan organisationnel (par exemple, en formant des équipes de travail et en modifiant les structures de gestion). Par contre, ceux des secteurs de l'acier et des pâtes et papiers ont eu davantage recours à la formation axée sur les compétences multiples.

En Suède, les différences entre les trois secteurs industriels sont moins marquées, mais elles sont tout de même semblables à celles notées au Canada. Par exemple, une plus grande proportion d'usines du secteur des télécommunications ont eu recours aux changements d'affectation et expérimenté de nouvelles structures organisationnelles.

En général, les gestionnaires canadiens ont compté beaucoup plus sur les stratégies de mise à pied et de rappel pour diminuer ou augmenter leur effectif comparativement à leurs homologues suédois qui, après avoir réduit leur main-d'œuvre, ont eu tendance à modifier les quarts de travail pour atteindre le même objectif. Les premiers ont aussi été plus enclins que les seconds à recourir aux heures supplémentaires. En outre, plus de gestionnaires canadiens que de gestionnaires suédois ont donné à leurs travailleurs de la production la formation axée sur les compétences multiples. Toutefois, plus de gestionnaires suédois que de gestionnaires canadiens ont établi des programmes d'acquisition de nouvelles compétences dans leurs usines.

Pour atteindre la flexibilité dans le nombre et l'emploi de leurs travailleurs, les gestionnaires canadiens ont pu plus facilement compter sur le marché du travail extérieur que leurs homologues suédois, tandis qu'il était plus facile pour ces derniers de recourir aux changements de responsabilités dans le travail. En outre, les représentants syndicaux suédois ont appuyé beaucoup plus fortement ces changements d'affectation que ne l'ont fait les représentants canadiens. Cependant, nous avons constaté moins

d'enthousiasme de la part des travailleurs suédois que de celle de leurs représentants syndicaux à l'égard de ces changements.

Nous croyons que ces constatations peuvent découler des différences liées à la nature et au degré de la sécurité d'emploi, au Canada comme en Suède, et à la facilité relative avec laquelle les gestionnaires peuvent faire appel aux sources de main-d'œuvre externes pour atteindre la flexibilité dans l'affectation et l'emploi de leurs travailleurs. Il semble que la résistance des travailleurs aux changements d'affectation soit plus forte lorsque leur ancienneté dans des emplois particuliers et leur contrôle sur des compétences particulières constituent les assises principales de leur sécurité d'emploi et de leur schéma de carrière.

RESÚMEN

Establecimiento de la fuerza laboral dentro de las plantas en Canadá y Suecia : Una comparación Tripartita

En el debate entre la flexibilidad laboral y la seguridad de empleo, las estrategias que los administradores siguen para acoplarse a las diferentes políticas tienden a ser olvidadas. Este documento examina la naturaleza de las políticas que los administradores utilizan para conservar la fuerza laboral en las plantas productivas en Canadá y Suecia dentro de los sectores de la siderurgia, la pasta y el papel y las telecomunicaciones. Aun y cuando los administradores canadienses tienen mejor acceso al mercado exterior, y utilizan de manera más eficiente las políticas de los despidos, las recontrataciones y el tiempo suplementario que sus contrapartes suecas, las estrategias de establecimiento dentro de las plantas tienden a necesitar de una más formal negociación, especialmente dentro de las plantas sindicalizadas. Los administradores suecos pueden llevar a cabo cambios en las políticas de establecimiento de manera más informal, particularmente con respecto a las responsabilidades del empleado y el entrenamiento. Los administradores suecos se enfrentan a limitantes más importantes que sus contrapartes canadienses en lo que se refiere a cambiar la cantidad de trabajo asignado. Ellos se sobreponen a este problema mediante la manipulación de los horarios de trabajo. También se han notado variantes importantes por sector.